

# THÈSE



Pour l'obtention du grade de  
DOCTEUR DE L'UNIVERSITÉ DE POITIERS  
UFR de sciences humaines et arts  
Migrations internationales, espaces et sociétés (Poitiers)  
(Diplôme National - Arrêté du 7 août 2006)

École doctorale : Sociétés et organisations - SORG (Limoges)  
Secteur de recherche : Géographie Politique et Sociale

Présentée par :  
Eleonora Guadagno

**Comment le phénomène du déplacement environnemental  
est-il perçu par les pays industrialisés ?  
Observations empiriques en Italie  
à partir des glissements de terrain à Sarno et à Cerzeto**

Directeur(s) de Thèse :  
Véronique Lassailly-Jacob, Francois Gemenne

Soutenue le 20 juin 2014 devant le jury

Jury :

Président	<b>Catherine Wihtol de Wenden</b>	Directrice de recherche CNRS, CERI - SciencesPo Paris
Rapporteur	<b>Catherine Wihtol de Wenden</b>	Directrice de recherche CNRS, CERI - SciencesPo Paris
Rapporteur	<b>Étienne Piguet</b>	Professeur de Géographie - Université de Neuchâtel (Suisse)
Membre	<b>Véronique Lassailly-Jacob</b>	Professeur émérite de Géographie - Université de Poitiers
Membre	<b>François Gemenne</b>	Chercheur qualifié FNRS, CEDEM - Université de Liège (Belgique)
Membre	<b>Roger Zetter</b>	Emeritus Professor of Refugee Studies - Oxford University (United Kingdom)
Membre	<b>Philippe Venier</b>	Maître de Conférence de Géographie - Université de Poitiers

**Pour citer cette thèse :**

Eleonora Guadagno. *Comment le phénomène du déplacement environnemental est-il perçu par les pays industrialisés ? Observations empiriques en Italie à partir des glissements de terrain à Sarno et à Cerzeto* [En ligne]. Thèse Géographie Politique et Sociale. Poitiers : Université de Poitiers, 2014. Disponible sur Internet <<http://theses.univ-poitiers.fr>>

UNIVERSITÉ DE POITIERS  
École Doctorale “Sociétés et Organisations”  
PRES Limousin-Poitou-Charentes  
Laboratoire MIGRINTER “Migrations Internationales Espaces et Sociétés”  
UMR 7301 CNRS/Université de Poitiers

## Comment le phénomène du déplacement environnemental est-il perçu par les pays industrialisés ?

*Observations empiriques en Italie à partir des glissements de terrain à Sarno et à Cerzeto*



Thèse pour l'obtention du Doctorat en Géographie Politique et Sociale

Présentée et soutenue publiquement le 20 juin 2014 par:

**Eleonora GUADAGNO**

Sous la direction de **Véronique LASSAILLY-JACOB** et **François GEMENNE**

### Membres du jury :

François GEMENNE, Chercheur qualifié FNRS, CEDEM, Université de Liège.

Véronique LASSAILLY-JACOB, Professeur émérite de Géographie, Université de Poitiers.

Étienne PIGUET, Professeur de Géographie, Université de Neuchâtel.

Philippe VENIER, Maître de Conférence de Géographie, Université de Poitiers.

Catherine WIHTOL DE WENDEN, Directrice de recherche CNRS, CERI, SciencesPo Paris.

Roger ZETTER, Professeur émérite en Refugee Studies, Université d'Oxford.





A thesis submitted to the UNIVERSIY OF POITIERS,  
 École Doctorale “Sociétés et Organisations”  
 PRES Limousin-Poitou-Charentes  
 Laboratory MIGRINTER “Migrations Internationales Espaces et Sociétés”  
 UMR 7301 CNRS/Université de Poitiers

## How environmentally induced displacement is perceived in the Global North?

### *Empirical evidence from Italy following Sarno and Cerzeto landslides*



In partial fulfilment of the Requirements for the Degree Doctor of Philosophy in Political and Social Geography

Public discussion, 20<sup>th</sup> June 2014 by:

**Eleonora GUADAGNO**

Under the supervision of **Véronique LASSAILLY-JACOB** and **François GEMENNE**

### **Thesis jury**

François GEMENNE, FNRS Senior research Associate, CEDEM, University of Liège.

Véronique LASSAILLY-JACOB, Emeritus professor of Geography, University of Poitiers.

Étienne PIGUET, Professor of Geography, University of Neuchâtel.

Philippe VENIER, Associate professor of Geography, Université de Poitiers.

Catherine WIHTOL DE WENDEN, CNRS Research Director, CERI, SciencesPo, Paris.

Roger ZETTER, Emeritus professor of Refugee Studies, University of Oxford.

*Cover image: Personal elaboration from fieldwork photos showing the different aspects of the debates, definitions and representations surrounding the environmentally induced displacement phenomenon in Sarno and Cerzeto, Italy.*

## Acknowledgements

This thesis would not have been possible without the supervision of Prof. Véronique Lassailly-Jacob and Prof. François Gemenne. I really appreciated your encouragements and perseverance throughout the course of study: my thesis greatly benefits from your inputs and guidance. Thank you for all the hours spent together reading the drafts and discussing my work.

I also thank Prof. Catherine Wihtol de Wenden, Prof. Étienne Piguet, Prof. Roger Zetter and Prof. Philippe Venier for accepting to be in my examining board.

I really thank all the staff at MIGRINTER: I am truly grateful to have worked in such an inspiring environment; I would not have finished my Ph.D. without your kind support. In particular Prof. Kamel Dorai, Prof. Cédric Audebert, Prof. Naik Miret, Prof. Olivier Clochard: thank you for your humanity and for giving me the opportunity to re-orient my Ph.D. after one year and half spent in Siena; your expertise, your patience and encouragements have taught me so much in so many ways.

Thank you to:

Gilles Dubus, Alexandra Brunaud, Carole Tardif, Maurad Haimaidi from MIGRINTER and François Debien from MSHS: you made me feel always welcome and gave me all the human and practical support I needed during the last two years.

Prof. Alberto Germanò and Dr. Giuliana Strambi from the laboratory IDAIC-CNR of Florence: you taught me the passion for the research; working with you has been a pleasure.

Prof. Massimiliano Vatiero from the University of Lugano: I cannot imagine what this thesis would have become without you. You have been the first person to support my work. Thank you for always giving the right advice.

Dr. Giacomo d'Alisa from the University of Barcelona and Professor Fabio Ietto from the University of Cosenza: my exchanges with you are among the best memories of this period.

All the people I met throughout the fieldwork, and all those who kindly shared their histories, knowledge and time with me.

All the individuals and families who welcomed me and participated in the whole research process, with their time and energy. In particular Anna Sirica, for sharing your entire story with me.

The representatives of the associations, the experts and the government officials at all levels. Especially Antonio Milone from the association “Rinascere”, Dr. Titti Postiglione



from the National Civil Protection, Dr. Giancarlo Chiavazzo from “Legambiente Campania”: without your precious data, comments and suggestions nothing would have been possible.

All the other doctoral and postdoctoral students met during seminars, conferences, workshops and summer schools and especially Andrea Milan, Jérémie Guelat, Raoul Kaenzig, and Geremia Cometti: thank you for the precious exchanges and comments.

All the staff at “Maison des Langues” in Poitiers, and REPROS Research Centre in Siena, who gave me the opportunity to finance and work on my Ph.D., and especially Graeme Watson for his suggestions and Cristophe Naud for his support.

My family. Gianluca, for standing by me and supporting me unconditionally; Mamma, Papà, Lorenzo, Stefano, Lisa, Viola and Noémie: thank you for your intense patience, care, passion, support, and editing.

My Ph.D. adventure-mates: Colette, Mélanie, Sarah, Marine, Martine, Zhi Peng, Guillaume, Saliou, Victoire, Mickael, Hélène, Amandine, Anna, Kévin, Célio, Céline, Anne-Laure, Areen, and Émilie. Thank you for all the long days, the precious exchanges and the fundamental time spent together off work.

My friends: Magda, Silvia, Isabella, Carla, Simona, Laura, Serena, Irene, Simone, Andrea, Dario, Émilie, Lélia, Khalid, Cédric, Alex, Stéphanie, Loic, Silvia, Michelangelo. Thank you for supporting and understanding me, over and over again.

Sincerely,  
*Eleonora*

# Summary

<b>Acknowledgements .....</b>	<b>5</b>
<b>Summary .....</b>	<b>7</b>
<b>Foreword .....</b>	<b>8</b>
<b>General Introduction.....</b>	<b>11</b>
<b>I. Research design, key concepts and general methodology .....</b>	<b>21</b>
I.1 The conceptual framework .....	23
I. 2 A qualitative methodology .....	37
<b>II. “Natural” disasters in Italy?.....</b>	<b>52</b>
II.1 Italian catastrophes: an inappropriate legal framework?.....	54
II.2 How nature shapes culture and language .....	86
<b>III. An empirical approach: observations from Sarno and Cerzeto.....</b>	<b>119</b>
III.1 The steps of the research process.....	121
III.2 The two landslides and their consequent mobility.....	133
III. 3 The representations of the landslides .....	172
III. 4 The perceptions about the impacts of the two catastrophes.....	214
<b>IV. A discourse rooted into a political agenda .....</b>	<b>245</b>
IV.1 Different definitions for the same phenomena .....	248
IV.2 Three components of the representation.....	275
IV.3 The misrecognition: a political design?.....	306
<b>General Conclusion .....</b>	<b>330</b>
<b>Table of abbreviations.....</b>	<b>342</b>
<b>Bibliography.....</b>	<b>344</b>
<b>Web Sites .....</b>	<b>381</b>
<b>Annexes.....</b>	<b>386</b>
<b>Tables of illustrations .....</b>	<b>392</b>
<b>Table of contents .....</b>	<b>397</b>

## Foreword

From the windows of the room in my parents' house, where I grew up, I can see the Vesuvius, the volcano that gives a special and wonderful shape to the gulf of Naples. Vesuvius is famous because of the Pompeii disaster. It continues to menace the city with another possible eruption. It is for me the symbol of how the natural environment influences human communities' life and how human communities coexist with natural hazards.

In the case of Naples, communities have settled in this area since the Magna Graecia, starting to face the natural hazard and its associated risk. The Vesuvius eruptions – such as the Pompeii disaster – shaped the imagination of the inhabitants of Naples and I have always been very interested in understanding the consequences of such disasters on the life, perceptions, memories, economies and human relations of the affected communities.

Ever since I was young, the relationship between people and their environment has always fascinated me. The tales, experiences and work of some family members gave me a particular look on the ecosystems and their implications on human life and gave me the opportunity to question the environmental degradation and resources depletion implications of human activity.

Lately, through my education and experience, I started to understand at what extent people can suffer from the violence of nature, how cities can be destroyed and how difficult it is to recover from the damages provoked by the disruption of the natural environment. Narrations about the Irpinia earthquake (which occurred in 1980 severely damaging the city of Naples) and the 1984 Pozzuoli bradyseismic activity (which caused the resettlement of a whole district of the city near to the place where I was born) are still very recurrent in people's memories in my whole region.

During my childhood, through the media, I observed some other catastrophic events that occurred in Italy in the last decades, such as the Assisi earthquake in 1997 and the Sarno landslide in 1998: these two catastrophes helped me realise what a catastrophe is and what implications it can have on people's lives.

Through my studies in political science for my bachelor and master degree, which I concluded discussing a thesis about sustainable development and disaster management in Italy, I verified that these personal perceptions could be generalised. Collective traumas

and tragedies, in fact, influenced direct and indirect experiences of the whole Italian society, its relation with natural environment, risks and catastrophes.

More recently, the Cerzeto landslide in 2005, the L'Aquila earthquake in 2009, the Cinque Terre landslide and the Emilia Romagna earthquake in 2012 made me question the narrative about catastrophes, risk management activities and mobility implications for the people affected by catastrophes. Throughout the years, I indirectly observed other huge environmental and technological catastrophes that occurred in other parts of the globe (tsunamis, desertification, severe pollution and nuclear accidents). These catastrophes, at times maximised and overexposed by the media, at other times hidden in the mainstream public and political discourse, gave me the idea to develop this analysis through a deeper exploration.

Being Italian, I decided to study the situation in my own country. I began to analyse the different treatments and coverage of the environmental degradation and mobility nexus, in order to better understand how and why some catastrophes are maximised and other minimised at the global level:

- How frequency and effects of catastrophes shaped the Italian collective imaginary about vulnerability and risk?
- How the media and the authorities generally treat the catastrophes?
- What measures are taken to prevent environmental degradation and catastrophes?
- Who is considered “responsible” of catastrophes?
- Can we find a shared meaning of “environmental culture”?

In order to prepare my fieldwork, I started to question collective imaginary on, individual approaches to and media coverage of two specific cases, namely Sarno and Cerzeto. I present the results of my fieldwork to provide some deeper insights on the way the environmental degradation and mobility nexus in the Global North is debated and understood at the global level.

Thanks to the people and associations I was in contact with, before starting my research, and to those I met while working in the field, I was able to design and perform my interviews to inquire catastrophes and consequent mobility of the affected population.

- What is the role of individuals, households and communities in shaping risk and vulnerability perceptions?
- What terminology and lexicon have been used to describe people affected by the catastrophe by media and authorities?



- How do people define themselves?
- What is the role of local, national and international governmental and non-governmental institutions in the treatment of the issue?
- How do authorities preside over the places in which occurred the catastrophes?
- Do compensations shape the collective imaginary?
- How the private and public memory of the displacement is constructed?

The results of the fieldwork have been useful to reinforce the perception that a collective tragedy can shape cultural beliefs and can generally modify the relationship of a given society with its territory, space and natural environment.

Through the findings of the fieldwork I was also able to put in perspective other data and other examples from a series of studies done in different geographical contexts and question the crucial issues related to conceptualisations, treatments and coverage of, and debates about, the environmental degradation and mobility nexus at global level.

- Why does the Global North assume being immune to natural hazards?
- Why is the environmentally induced displacement phenomenon not generally recognised in the Global North despite its existence?
- What are the political motivations of this misrecognition?
- Is geographical marginalisation a manner to raise public awareness?
- Are exaggerated predictions ways to instrumentalise the phenomenon?

In a nutshell, the subject of the thesis is related to the perception of environmentally induced displacement in the Global North, a complex issue crossing different approaches, different methodologies and different areas of investigation, starting from the observation of the Italian specificities and through the examples of Sarno and Cerzeto.

## General Introduction

*“Often we talk about memories, mementos;  
but for us [the catastrophe]  
is not a memory neither a memento.  
It is a permanent state, a deep awareness,  
It is part of us.”*  
(A. Sirica, *Per Te*, 1999: 31).

This opening quote is part of a book written by one of the survivors of the Sarno landslide, which occurred in Italy in 1998. The author talks about the catastrophe considering the deep and permanent impacts it had on the life and the perceptions of the people who experienced it.

The examples of Sarno and Cerzeto and the illustration of the Italian case are here discussed in order to explore the perception of the environmentally induced displacement phenomenon in the Global North. These two analysed catastrophes and their consequent human mobility produced a specific collective imaginary and a specific narrative, shaped by the institutional attitude and the media representation.

This thesis, in fact, deals with the analysis of narrative, political language, media coverage and perception of human displacement and mobility due to environmental degradation and catastrophes in this specific area of the globe. It also investigates the political implications of the distinct definitions given to the same phenomenon in different geographical regions, trying to analyse the motivations of these different conceptualisations.

The analysis of perceptions and conceptualisations of, and discourses and narrative about, this subject in the Global North allows examining causes and geo-political consequences of a specific narrative or coverage when referred to different geographical areas. This perspective seems to be original and gives the possibility, through the study of two specific cases, to proceed to a wider analysis of the unequal distribution of power within and between countries at the global level (Zetter, 1991).

Thus, the main question is: *Why the environmentally induced displacement phenomenon is not generally recognised in the Global North, even if it does exist in this area of the world?*

In other words, the main question of the thesis concerns the possibility to individuate a specific narrative to the environmentally induced displacement issue in the Global North and, once that narrative recognized, to investigate the reasons for its use.

### ***The thesis' statements***

In order to investigate the general perceptions of environmentally induced displacement in different geographical areas, I discretionarily suggest to divide the world according to a simplistic division in Global North and Global South countries: this division, far from being exhaustive and complete, allows for a simple synthesis. It just indicates that some countries present higher Gross Domestic Product (GDP), Human Development Index (HDI), Gender Related Development Index (GDI), Freedom House Index and Global Footprint Index values.

Even if I recognize the limits and the risks of this division and of the use of these indexes, I define countries that are “richer” in economic, social and democratic terms as “Global North countries” and “poorer” ones as “Global South countries”. This epistemological choice that indubitably refers to an out-dated division is useful because it underlines how the Global North interests that over Global South are not anachronistic. The research interests on specific areas, in fact, actually seem to hide current geopolitical stakes retracing past power equilibrium.

I have arbitrarily chosen Italy and the two cases of Sarno and Cerzeto as examples to investigate the perceptions of the environmentally induced displacement phenomenon in the Global North. While it is almost impossible to isolate it as an independent determinant of global migration patterns, environmental degradation seems to be a crucial factor when analysing local processes in the aftermath of a single catastrophe.

I decided to use the definition of “environmentally induced displacement”, to describe and analyze two landslide events and their related mobility. This research is based on a qualitative methodology employing a double-sited example to investigate the different conceptualisation of the issue of environmentally induced displacement in the Global North.

The purpose of my thesis is not to take into account climate change or global environmental changes as environmental stress factors. It is to focus on recent catastrophes and environmental degradation processes in order to have measurable and

concrete data to draw the linkages between environmental factors and human mobility.

The first question arising from my assumptions deals with the possibility to investigate the perception of environmentally induced displacement in a geographical area from the study of a single country.

Secondly, the choice of using a single country in order to unequivocally determine the phenomenon perceptions in the whole Global North, needs to be questioned: the specificities of the Italian case could render the analysis not representative of such a broader context.

Among the other issues, I also try to answer to the following questions.

- Is it possible to separate Global North and Global South?
- Can the Italian case be used as a lens to observe the whole general Global North's public opinion perception of environmentally induced displacement?
- Can this perception be considered as monolithic in the whole Global North?
- Can Italy be illustrative for the whole Global North?
- Are Sarno and Cerzeto good examples to investigate the perception of the phenomenon in Italy and, as in the Global North?
- Can the narrative concerning the two landslides and their related mobility – occurred with a 7 years delay – be representative of the memorialization and perception of the phenomenon?

The list has not the presumption to be exhaustive of all issues currently open in the domain: it is just a modest contribution to the research on environmental degradation and mobility.

### ***The theoretical framework***

The current debate concerning the implications of environmental degradation on human mobility has so far largely focused on the Global South (among the others Dasgupta et al., 2007; Khadria, 2011; Kollmar and Banerjee, 2011). The environmentally induced displacement phenomenon, in fact, has been sensitised and exploited to bring attention over this growing issue specifically in this particular area of the world.

The phenomenon has often been described using a monocausal and deterministic narrative, taking into account only superficially the complex nexus between



environment and mobility, considering only partially the specificities of the analysed cases, and overlooking the complex, localized effects of environmental degradation on individuals and families.

Thus, through the critique to this mainstream perspective aiming to the exaggeration of the phenomenon and the focus over specific areas, the objective is to analyse the definition of the environmentally induced displacement phenomenon not only considering the empirical evidences from two case studies in Italy, but also trying to understand what kind of narratives and discourses surround it in the whole Global North.

The different coverage media and authorities have given to occurrences of environmentally induced mobility in different areas of the world allows developing a theoretical reflection about the phenomenon. It is therefore extremely useful to draw on empirical examples from a context poorly studied in this specific field of research, such as Italy.

I try to understand and underline what are the political, cultural, economic and social aspects that produce, reproduce and influence the representation of the environmentally induced displacement phenomenon. I investigate maximisation and minimisation of the phenomenon in different contexts, as well as its politicisation, being the concept of environmentally induced displacement one of the faces of global mobility and, therefore, of human globalisation (Wihtol De Wenden, 2013).

The thesis uses a specific framework that retraces the current analysis in the environmentally induced displacement field (Bates, 2002; Black, 1998; Boano et al., 2008; Gemenne, 2011; and Piguet et al., 2011). Unlike most studies trying to determine the causal relationship between environmental degradation and mobility, this thesis focuses on an analysis of the political reasons that explain the different narratives and definitions given to the same phenomenon in different geographical areas.

### ***The novelty of the research***

The thesis' intention is to underline the global motivations and implications of the treatment of the concept of environmentally induced displacement in different geographical contexts starting from the evidence of two Italian cases. A theoretical

reflection of the environmentally induced displacement concept in the frame of the Global North will be provided, associated to an empirical analysis of an example of environmentally induced displacement in a poorly studied context: Italy.

Firstly, the research carried out wants to add new elements of reflection to the existing body of work on environmentally induced displacement, through the analysis of the media representations, the analysis of the public debates and the investigation on the personal experiences. The analysis will mainly concern the politicisation of the phenomenon, its reasons and consequences at the local and global scales through a critique of the approach that has so far characterized it. Rather than questioning the causes or the consequences of environmental degradation on human mobility, I try to take a step behind and examine in a comprehensive manner the context of the research, giving specific attention to the politicisation of the phenomenon.

Secondly, the thesis attempts to explore the different aspects of the environmentally induced displacement phenomenon, starting from the assumption that there are few case studies in the Global North. Despite the existence of a number of other studies on the phenomenon of environmentally induced displacement (among the others Williams, 2008; Warner and Laczko, 2009) and of research on the politicisation of environmental issues in general (Hartmann, 2010; Latour, 2005; and Magnan and Duvat, 2014), the question that is addressed through the present work, is the analysis of the deep motivations that could explain the different coverage of environmentally induced displacement in the Global North.

Thirdly, through my research, I try to address the fact that there are few empirical researches in the Global North. I study this issue complementing the mainstream deterministic approach with a more nuanced analysis in a poorly studied geographical area. The examples from Italy are, in this regard, particularly valuable: they allow framing the issue through the study of a specific cultural and natural context. The novelty of this research, in fact, does not only lie in the analysis of new case studies on the same phenomenon. Collecting data about the narrative surrounding environmentally induced phenomena in Global North contexts does indeed provide some evidence for poorly studied context; as results, it helps highlight how this phenomenon is not solely related to specific geographical areas.

Fourthly, the motivations of this absence are investigated to provide an exam of the variables exacerbating the stigmatisation of the phenomenon. Ever since the work of

O’Keefe, Westgate and Wisner (1976) and until recently, in the researches of Hartman and Squires (2006) or Felli and Castree (2012), environment, catastrophes and all related issues have been defined as “not neutral” concepts, and their analysis recognized as the product of perceptions, backgrounds and priorities of the different actors that create, reproduce and represent them. Echoes in the media, political management, academic points of view, and individual perceptions, all seem to be crucial to understand the narratives surrounding environmentally induced displacement. In order to analyse these points, I study two Italian cases that provide useful insights on the conceptualisation and politicisation of the phenomenon in the Global North and at the global scale.

Finally, another novelty deals with the self-representation of the affected communities and the views that experts, authorities and associations hold on them. It allows understanding better how the narrations surrounding environmentally induced displacement are constructed, where they seem to be placed, and in which measure they are completely ignored in some contexts that have experimented, and have had to cope with, this phenomenon and its consequences. I investigate if it is possible to recognise a link between environmental stress and mobility and I try to analyse the peoples’ descriptions of the phenomenon, in order to understand its private and public memorialisation and the integration of media and institutional discourse in the narratives surrounding it. In fact, the fieldwork approach, rather than solely theoretical, can provide more accountability to the analysed object of study through the empirical observation. According to Becker (1970: 75): *“one can properly acquire knowledge of the phenomenon from intensive exploration of a single case.”*

The analysis of narratives, treatments, coverage and perceptions of the two case studies appears crucial: even if each case presents distinct specificities, the mobility experienced both in Sarno and Cerzeto has been caused by the same “natural” event, a landslide. The reasons behind the choice of these two examples include their theoretical pertinence (in relation to the research objectives), their exemplary importance for the study (because of their intrinsic characteristics) and site accessibility. These aspects reinforce the choice of the cases as the basis of a more general analysis. They help validate the idea that environmentally induced displacement is a phenomenon that also takes place in Global North countries. The results of the study of the cases are then crossed to analyse the behaviour of the communities affected by this phenomenon in a multi-perspectival

analysis<sup>1</sup>, to generalise the findings through an inductive approach.

After having individuated the specificities of the political management and treatment of the two cases of Sarno and Cerzeto and of the conceptualisation of environmentally induced displaced in Italy, I try to infer the results of my analysis to the whole Global North, in the attempt to investigate the political implications of the different perceptions of environmentally induced displacement.

In essence, I focus on the elements that contribute to the stigmatisation of issues related to, and implications of, environmentally induced displacement in the Global North.

### ***The structure***

In order to analyse the main question, namely the politicisation of the environmentally induced displacement phenomenon in the Global North, the dissertation is structured as follows.

1. The first part presents the research design and the general methodology used to conduct the study. It describes the theoretical pathway that has allowed me to construct the research, the concepts that underpin my reflection, the tools I used for my elaboration and the reasons for the choice of the Italian context, and introduces the main features of the cases of Sarno and Cerzeto. This allows me to lay out the theoretical basis I relied on to carry out my research, scope, duration, and principal steps of the study, as well as to introduce the operational concepts and predominant frameworks applied in this research.

In the first chapter, I discuss the theoretical approach that I adopted to analyse the issue of the conceptualisation of environmentally induced displacement, presenting the key elements that shape it.

In the second chapter, I present the adopted methodology, justifying the choice of the case studies and of an empirical approach to this elaboration, and highlight challenges and difficulties met during the fieldwork. Justification of methodological choices and explanation of economic and social positioning

---

<sup>1</sup> In this sense, I do not just consider the perspective of the people involved in the catastrophe, but also the point of view of other groups involved in the event and their interactions, such as the associations, the experts, the authorities and the media, which I detail later.



limits in the fieldwork are essential in the identification of a possible interpretation bias in both the observation process and the analysis of the findings.

2. The second part is an analysis of the Italian context. It presents the country in general and its specific cultural approach to risk and vulnerability to catastrophes, based on an exploration of the scientific literature and other bibliographic sources that allows me to frame the “Italian approach” to the environmentally induced displacement issue. This part has been designed in order to give the reader more elements concerning the cultural, environmental, economic and political context in which I decided to carry on my empirical observation.

In the first chapter I discuss the specificities of Italy in terms of environmental degradation, vulnerability, and mobility induced by catastrophes, from a historical, economic and juridical point of view.

The second chapter focuses on the mainstream approach to catastrophes and their consequent mobility, pointing out the how they are referred to, and dealt with, by the media and in political debates.

3. The third part empirically analyses two examples of environmentally induced displacement in Italy, the case of the town of Sarno and of the rural settlement of Cerzeto affected both by landslides, and inquires about the relationship between environmental stress and human (im)mobility. This part offers some reflections on the importance of mixing different scales of investigation, macro, meso and micro levels, to understand complex realities. It includes the results of a micro-level analysis of perceptions and memories of the catastrophes and induced mobility of individuals and households: crucial drivers and deterrents of mobility are identified, as well as the political claims surrounding the forced resettlements. It then exposes the findings of a meso-level survey of the perspective of academics and associations in the definition and in the analysis of the phenomenon. It concludes with a macro-level investigation of the treatment of the issue by institutions and mass media, and of the political discourses surrounding it, including of their press and TV representation.

In this part I discuss the findings of the empirical observations. The

provided examples are crucial in order to deepen the analysis on political treatment, self-definitions and media coverage of the linkage between environmental degradation and mobility in a Global North country. I also analyse vulnerability as a socially constructed feature of communities, taking into specific account the issue of those who are trapped in hazard-affected areas, the differentiated exposure to natural hazards as a consequence of pre-catastrophe human, economic and social capital endowment and availability or lack of options, the different perceptions about territorial transformations in the aftermath of catastrophes and the narratives surrounding mobility in this particular kind of contexts.

In the first chapter I present the fieldwork research process, detailing the composition of the sample and the adopted methodologies.

In the second chapter I give an overview of the two cases and focus on the mobility triggered by the landslides in the short, medium and long-term, in order to explore patterns of vulnerability, livelihood and mobility decisions, and forced mobility and immobility outcomes in the two cases.

In the third chapter, I analyse individual and collective representations of the phenomenon, by considering the discourse of the media, the academics' and institutions' debates the memorials to the victims and the graphic representations by the displaced themselves.

The fourth chapter specifically analyses the affected communities' perceptions of causes and consequences of the landslides and the way people understood, described and dealt with relocation, resettlement and compensations.

4. The last part, built on the results of the fieldwork, compares the specificities of the Italian experiences with those of case studies elsewhere in the world. It attempts providing a holistic and comprehensive overview of the perceptions of the environmentally induced displacement issue in the Global North.

The results of the fieldwork also allow reconceptualizing the different definitions, media coverage types, case studies and narratives associated with the phenomenon in different geographical areas. This analysis takes also into account why environmentally induced displacement is largely ignored in the

Global North, and what are the intended and unintended consequences of this lack of attention. Furthermore, the findings are framed within the broader geopolitical context of Global North immigration policies and within the security rhetoric prevalent in this specific area of the globe.

In the first chapter, I analyse the issue of environmentally induced displacement, trying to compare the Italian specificities with evidences from case studies elsewhere in the world. I consider some of the conceptual and research gaps existing in theories dealing with adaptation, resettlement and mobility.

In the second chapter, I investigate motivations and consequences of the minimisation of environmentally induced displacement in the Global North. I present some aspects of this issues that characterise the mainstream approach to this field.

In the third chapter, I focus on the political agenda behind the different narratives and debates about the phenomenon in different areas of the world.

The general conclusion retraces the main findings of the case studies, considering the different hypotheses of my work, the principal evidences from the research and their applicability in other context of research. It mainly represents an occasion to open up and suggest further researches in the analysis of the debates and discourses in the field of environmentally induced displacement.

## I. Research design, key concepts and general methodology

*“The qualitative researcher’s perspective  
is perhaps a paradoxical one:  
it is to be acutely tuned-in to the  
experiences and meaning systems of others  
—to indwell—and at the same time to be aware  
of how one’s own biases and preconceptions  
may be influencing what  
one is trying to understand.”*  
(Maykut and Morehouse, 1994: 123).

### Introduction

This thesis can be considered as a crossroads between the researches in the field of social science and those done in the field of political sciences studies: specifically between the researches in the field of mobility, political ecology, and media discourse analysis. The conceptual framework will be organised according to the research design, the key concepts, and the general methodology.

It aims to contribute to the debate surrounding the politicisation of the environmentally induced displacement phenomenon, principally considering the works of Mol (1999), Bankoff (2001), Miller (2004), Gemenne (2009), and Zetter (1991 and 2007). Environmentally induced displacement dynamics are the core of this reflexion that mobilises different theoretical disciplines.

The case study approach – mostly conducted through social sciences tools (Olivier de Sardan, 1995), crossed with elements of political communication and social psychology – has been necessary in order to question the different categories used by governments, NGOs, local associations, and individuals in the description and in the representation of this phenomenon. Political geography has been helpful in the approach and in the analysis of fieldwork results. Political sciences tools have been used in the analysis of the institutional and media approach to the phenomenon.

In order to analyse the discourses and the debates surrounding a phenomenon, starting from empirical evidences, which kinds of data are useful to have a comprehensive approach of the subject? Which are the main concepts of this research? *“What is a case*

*study and what is it good for*”<sup>2</sup>? To answer to these questions I now present three sections dealing with the general methodology and the research pathway used in the research.

Firstly, I present the theoretical approach to this research. Secondly, I present the choice to adopt an empirical approach. Finally, I provide a justification of the choice of the Italian case followed by the broader presentation of the two empirical examples of Sarno and Cerzeto.

---

<sup>2</sup>This question expressly refers to the article of Gerring (2004).

## **I.1 The conceptual framework**

### **Introduction**

The concepts related to environmental degradation, environmentally induced displacement, and forced migration, are not new in the international political agenda nor in the academic literature (among the others El-Hinnawi, 1985; Jacobson, 1988; Myers, 1993 and 1997; Westing, 1994; Hugo, 1996; Black, 1998; and Bates, 2000). Nevertheless, nowadays their correlation is becoming a central political issue at a global level, even if there is a lack in juridical recognition and protection of the people that are affected by natural and human catastrophes and environmental degradation and are obliged to migrate in new and safer places (Kolmannskog, 2008).

The complexity of the issue of environmentally induced displacements needs cross-disciplinary tools (Black, 2001): for this reason, the thesis has been conducted through different methodologies. It especially poses questions regarding knowledge, science, and cultural encounters, refocusing on the unique role of subaltern or marginalised people in bringing about large-scale transformations in the society – through geographically determined categories within the communities and at the global scale. That frame is essential to the aim of my thesis. In this chapter, I firstly present the broader theoretical framework considering the post-constructivist approach in political ecology; secondly, I focus on the main concepts used in the thesis and, finally, I present the research hypothesis and their corollary.

#### **I.1.a A post-constructivist approach to political ecology**

I am interested in understanding the “knowledge gap” in the field of environmentally induced displacement. In fact, I want to understand the political causes, motivations and consequences of few case studies concerning environmentally induced displacement in the Global North: this few numbers of case studies represents an important gap in the knowledge of the subject.

The analysis on the lack of case studies in the Global North and the construction of the discourses and the debates in the field requires working on the process of

conceptualisation evolution, considering a heterogeneous landscape of concepts, actors, geographic and cultural components and discursive practices.

### ***The importance of “gaps” in knowledge production***

The analysis of the gap in knowledge production about environmentally induced displacement issue became interesting when I started looking into what its production meant, and how it is developed in the political space.

The analysis of the different frameworks and conceptualisations starts from the article of Bankoff (2001), “*Rendering the Word Unsafe: Vulnerability as Western Discourse*”. In this article, the author retraces the discursive context in which hazards, risk, vulnerability, and catastrophes are conceptualized and which cultural bias hides their production and their use. According to the author, the definition of the concepts of human vulnerability and natural hazards are the reflection of specific cultural values (environmental protection, human security) and are generally linked – in their construction, reproduction and representation – with specific areas of the World (in this case the Global North). This tendency has been analysed in the attempt to understand how post-colonial interactions and the neo-imperialist paradigm still link scientific research with interpretations of reality done by media and governmental policies.

The importance to study this phenomenon in a Global North context has already been pointed out by other researchers in different contexts: the case of the displacements in the aftermath of hurricane Katrina in the USA<sup>3</sup> (among the others Woods and Lewis, 2005; Cutter, 2011), the case of the mobility due to the Xynthia storm in France<sup>4</sup> and the case of the displacement consequent to the Fukushima earthquake in Japan<sup>5</sup> (see the DEVAST

---

<sup>3</sup>“Hurricane Katrina occurred in 2005 hit the southern region of United States in a vulnerable place that host to both numerous petrochemical complexes and many poor African American communities that have long complained of environmental disparities. It is no coincidence that the storm’s most dramatic effects were felt in a city where black reliance on public transit was four times higher than that of whites and where the public plans for evacuation were tragically deficient”. (Woods and Lewis, 2005: 8). The displacement from the metropolitan region immediately after Hurricane Katrina was estimated about 615,000 as of October 2005 (Logan, 2006).

<sup>4</sup> See for example the work of the artist Marie Velardi under the frame of the Nensen initiative.

<sup>5</sup> Following a major earthquake (of magnitude 9.0), a 15-metres tsunami disabled the power supply, cooling of three Fukushima Daiichi reactors, causing a nuclear accident on 11<sup>th</sup> March 2011 and did considerable damage in the region, and the large tsunami it created caused very much more. The tsunami



project issues<sup>6</sup>), reveal the importance to evidence the phenomenon of the environmentally induced displacements also in this specific area of the globe.

The roots of this framework of analysis can be found in the field of post-colonial and subaltern studies, which criticises Eurocentric vision and the fetish of “West” (Lazarus, 2002). The field of studies develops in the Western academy starting from the publication of Edward Said’s 1978 influential critique of Western constructions of the Orient, *Orientalism: post-colonial studies*, grouping a number of perspectives that look critically at the legacy of colonialism and its present forms (Ashcroft, Griffiths and Tiffin, 1989).

### ***Interpreting nature, science and politics***

Latour and Woolgar (1986), in their work, consider that without the strategies used by scientists, the researcher is not able to establish facts. This stands also in social sciences. The works of the authors focuses on how to try to explain reality as there are several human and non-human elements incorporated into the process that have to be taken into account.

In order to be able to follow the process of construction of a narrative surrounding a specific concept, and to look to the material and immaterial elements that take part in this construction, I had to study the social interactions between the actors who participate to the construction and to the reproduction of the concepts. I also focused on the material and human practices that constitute the outcomes of this conceptualisation.

A post-constructivist approach which takes into account the subject “environmentally induced displacement” and its conceptualisation has been central in this research processes. This procedure provides a sufficient framework to understand the ways in which environmentally induced displacement causation is incorporated into local and international debates, in media representation and in the self-representation of concerned

---

inundated about 560 sq. km and resulted in over 20.000 who died, and in the more than 150,000 who had to flee their homes because of radiation contamination (available at: [www.world-nuclear.org](http://www.world-nuclear.org), last access January 2014).

<sup>6</sup> “*The Disaster EVAcuation and RiSk PercepTion in Democracies (DEVAST) project was designed to analyse the chain of impacts, from the immediate response to the long-lasting impacts induced by the above Great East Japan Earthquake and the following Fukushima nuclear accident, focusing particularly on the displacement of population.*” (available at <http://www.devast-project.org/>, last access February 2014).

communities.

I also used the post-constructivist approach trying to explain the connection between environmental degradation and mobility, putting social sciences and nature together, rather than considering these concepts as separate domains of investigation: natural objects, in fact, seem to connect with “social objects.” The environmentally induced displacement phenomenon reveals its complexity, because when dealing with such concept, it is necessary to take into account the whole apparatus of political, discursive and “natural” elements that compose and generate this issue, create its representation and increase the deriving mobilisation.

In a nutshell, this interpretative framework helped me to take into account not only the material and social elements which constitutes this issue, but also the process of co-production done by all the actors who participate to this knowledge (and non-knowledge) construction and reproduction. This is because I tried to consider in the constructive process, and in this process, the phenomena that are overexposed, but also the ones that are overlooked, and the motivation of these differences.

Through the study of political discourses, scientific orientation practices, materials, and categorisation processes, I explain the connections between local practices (in Sarno and Cerzeto for the Italian case), and macro-level political thoughts.

Environmentally induced displacement discourse, in fact, appeared to me as dependent to the environmental knowledge and non-knowledge production: also, the gaps created by these dynamics become interesting, when I look at them considering their causes and their consequences.

- How are the discourses surrounding environmentally induced displacement constructed?
- Are they constructed in the Global North? By whom?
- How are they prioritised?
- How are they translated into collective knowledge or non-knowledge at a local and a global scale?

In order to answer to these questions, I now present the concepts used in this dissertation questioning them, through the lens of this specific theoretical slant.

### **I.1.b The thesis' key concepts: definition and discussion**

In order to frame the debate and the discourses surrounding environmentally induced displacement in the Global North, it is essential to present the main concepts used to describe and discuss this issue: “environmentally induced displacement”, “catastrophe,” and “vulnerability”. It is, indeed, important to understand the definitions of these concepts, their evolution, and their interaction, given the importance of this relationship to the thesis.

I discuss the terms used for the theoretical and empirical study of this research. In order to describe better the Italian specificities and the observations from the cases of Sarno and Cerzeto, it is now interesting to retrace briefly the historical evolution of their conceptualisation. It will be also useful to put into perspective the empirical findings in the global debate surrounding the phenomenon.

#### ***The environmentally induced displacement***

The displacement of people caused by environmental changes is not a new phenomenon, but it is a “*growing evidence that brings a big numbers of people to move within the borders of their own country and jeopardises their lives*” (Trollaldalen et al., 1992: 1). Already in 1882, in fact, Ratzel, in his theory of migration, showed how the movements of populations could be generated because of some changes in climate and temperature, or by environmental degradation.

##### ***a. The origin of the terms***

Only in 1976, environmental analysts Brown, McGrath, and Stroke, in a Worldwatch Institute paper, used the term “environmental refugees” for the first time, to refer to migrants who were forced to flee their homes due to a changing environment, as a consequence of pollution; climate change; overgrazing; overcrowding, urbanisation and deforestation; political instability, conflict over energy, water and minerals; endangered species, and biodiversity reduction.

The term “environmental refugee” came into popular use following El-Hinnawi's

work on the topic for the United Nations Development Programme, which defined environmental refugees as *“those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardised their existence and/or seriously affected the quality of their life”* (1985: 4).

Later, Jacobson, a Worldwatch Institute analyst, (1988: 37-38) identified different types of “environmental refugees”: *“Those displaced temporarily due to local disruption such as an avalanche or earthquake; those who migrate because environmental degradation has undermined their livelihood or poses unacceptable risks to health; and those who resettle because land degradation has resulted in desertification or because of other permanent and untenable changes in their habitat”*, drawing attention to those disasters that result from an interaction of anthropogenic and natural disruptions of the environment. These early texts are characterised by broad definitions, a marked concern for environmental degradation, the consideration of all natural hazards as possible drivers of mobility, and a prevalent focus on the Global South.

#### *b. Environmental degradation and mobility nexus: a growing “insecurity”*

In the following decades, a number of articles appeared to confirm or criticise the contributions of the first scholars. Tuchman Mathews (1989: 162-177) uses El-Hinnawi “environmental refugees” definition to retrace the concept of security, Westing (1992), talking about categories of refugees, writes that the more environmental refugees flee from natural disasters the more there will be a global implication on national and international security.

In 1993, UNHCR’s *“State of the World’s Refugees”* identified four root causes of refugee flows, namely political instability, economic tensions, ethnic conflict, and environmental degradation. In a more radical way, Myers defines environmental refugees as *“People who can no longer gain a secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems”* (1994: 6-7). One year later, the Climate Institute in Washington D.C. published *“Environmental Exodus: An Emergent Crisis in the Global Arena”*, a report that legitimised the use of the concept of environmental refugees. Some criticism was provided by other academics who considered the term “environmental refugee” to be

simplistic, one-sided and misleading: for example, in his analysis of displacement in the Horn of Africa, Kibreab claims that *“the causes of refugee flight were many, varied and interlinked”* (1997: 21).

Thus, generally speaking, the ‘90s seem to be characterised by a sentiment of insecurity. The environment is seen as a tangible triggering factor of broader conflicts between and within the countries, especially in Global South contexts. For the first time the problem of security is associated to specific geographical contexts (especially the arid parts of Africa) and the phenomenon of displacement in the aftermath of catastrophic events starts to be considered as a “problem” of international security – associated with other conflicts and warfare in Global South countries – which needs to be addressed through concrete response by the international community.

### *c. The recent debate*

Since the early 2000, some scholars started to talk about “environmental migrants” or “environmentally displaced persons.” The necessity to use different definition arose because the term “environmental refugee” previously used in the literature did not fit into the international definition of “refugee” provided by the 1951 Convention and 1967 Protocol, in particular with regard to the concept of a well-founded fear of persecution (Renaud et al, 2007: 14). *“The current parameters of the international legal definition of refugee make it inappropriate to use the term of environmental refugee in a general context. Uncritical use of the term may quickly result in confusion.”*

In the absence of an internationally agreed definition, the International Organisation for Migration, developed a working definition in 2007, that refuses the label of refugees preferring the term of “environmental migrants”: *“Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad”* (Warner and Laczko, 2008: 2).

Bates (2000) suggests a categorisation of environmental refugees based on criteria related to the kind of environmental disruption triggering the movement (disasters, expropriations and deteriorations), its duration (acute or gradual), and whether

migration was a planned outcome or not. During the 2000s the generic definitions given by scholars and International Organisations reflect the incapacity to recognise this specific category and the consequent impossibility to assign people a specific status in order to guarantee their protection, even if both in the Global South and in the Global North phenomena of mobility and resettlement in the aftermath of environmental degradation and catastrophes were very common.

*d. A fashionable definition?*

After Myers, the idea that specific effects of climate change, and not only of environmental degradation in general, will cause massive displacements and exodus has been evoked by several other academics (Ferris, in 2011: 2, defines “climate refugees” as the ones who are subject to *“displacement which is likely to occur as a result of climate change: the relocation or resettlement of communities from areas which are no longer habitable because of environmental consequences of climate change”*), but the label “climate refugee” has been usurped by NGOs (Ollitrault, 2010) and the political international discourse. Widespread manifestos have used “climate refugees” as a means to improve visibility. On these lines the Council of Europe that reports that *“The impacts of climate change on the environment and human mobility are becoming increasingly worrying: the number of natural disasters has doubled over the past two decades”* (Mc Adam, 2010: 207).

The recognition of the domination of the climate change issue gives the opportunity to discuss the orientation of the research and the geographical approach that characterises the current academic discourse on the environmental degradation and mobility nexus issue.

The ideas that climate change affects Global South countries and that the gender-based power structures are more evident in these geographical areas denies the existence of these elements in the Global North, limiting the phenomenon as a “folkloristic” feature of specific communities, overall in the Global South.

## ***Disaster or catastrophes? The meaning of the debate***

According to Acot (2007: 9), the concept of catastrophes does not mean anything in itself: *“it makes sense only if related to human societies.”* Etymologically, natural disaster (*“dis-astrum,”* from Latin, “adverse star” that means “misfortune”) is an event independent from human action, an *“Act of God”* (Steinberg, 2000). It turns into a catastrophe (*“cata-strefo,”* from ancient Greek, meaning, “I overturn”) because of an over-use of natural resources and an over exposition of the human settlements.

### *a. The “unnaturalness” of catastrophes*

From the “acts of gods,” it is possible to reconsider the anthropic causes of the catastrophes and their “unnaturalness” (Magnan and Duvat, 2014). There is a close connection between secularisation and risk – namely the recognition of the anthropic causes of catastrophes – as demonstrated by the Enlightenment quarrel between Rousseau and Voltaire at the time of the Lisbon earthquake. *“When Nietzsche announces, ‘God is dead’, this concept has the ironic consequence that from that time human beings must find (or invent) their own explanations and justifications for the disasters which threaten them”* (Beck, 2006: 332). Therefore, it is pivotal to underline the difference between hazards and what turns hazards into catastrophes. I decided to use the “catastrophe” terminology rather than the “disaster” one, in order to analyse the definitions and the perception in different geographical contexts of the effects of natural hazards on the populations affected. *“Certain combinations of technical, social, institutional and administrative issue may have positive or negative impact in the challenge for disaster reduction”* (Turner and Pidgeon, 2001: XXI).

There is a positive correlation between increased demographic pressure, growing environmental degradation, increased human vulnerability and the intensity of the impact of disasters (Taylor, 2009). A catastrophe is, in fact, a function of a complex, multi-causal process producing risk. It results from the combination of hazards, conditions of vulnerability, and insufficient capacity or measures to reduce the potential negative consequences of risk<sup>7</sup> (UNISDR, 2003).

---

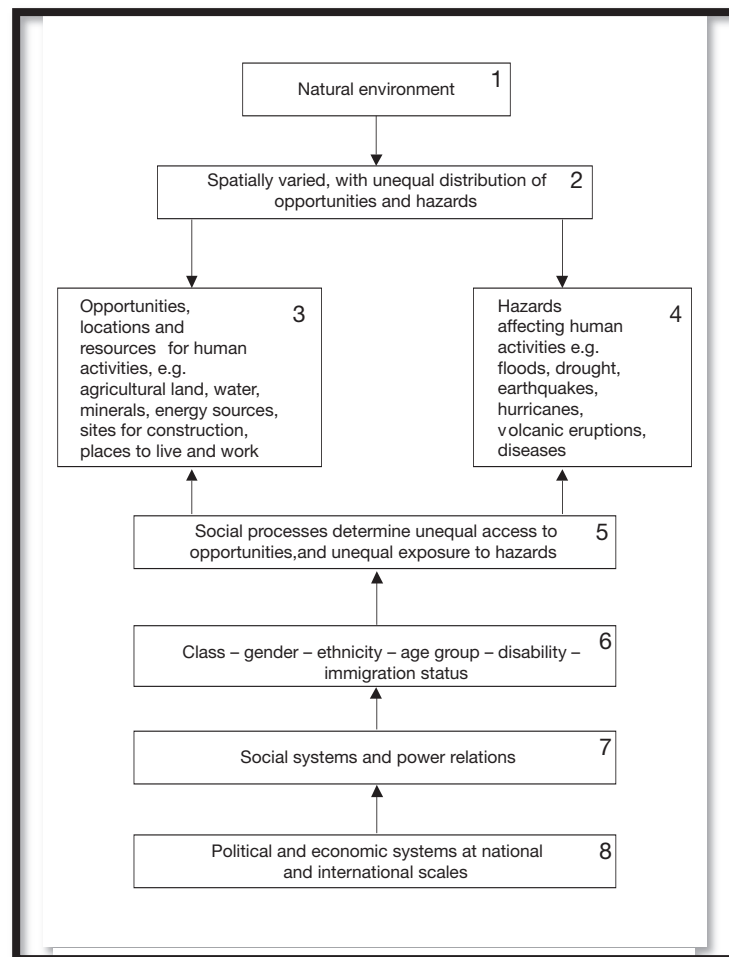
<sup>7</sup> The concept of risk, central to which are the notions of uncertainty and perception, has different definitions: according to the United Nations Inter-Agency Secretariat of the International Strategy



*b. The different components of the catastrophes*

From the following **Graph 1**, it is possible to notice how there is a positive correlation between increased demographic pressures – especially in developing countries – previous social vulnerability, growing environmental degradation, increased human vulnerability, and the intensity of the impact of disasters. Environmental degradation increases the intensity of natural hazards, and is often the factor that transforms the natural hazard into a catastrophe.

**Graph 1: The social causation of catastrophes**



*Source: Wisner et al., 2003: 8.*

for Disaster Reduction (ISDR) it is the probability of harmful consequences, or expected loss (of lives, people injured, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable/capable conditions. Formally, risk is expressed by the equation: Risk = Hazard (climate) \* Vulnerability (Blaikie et al., 1994; Wisner et al., 2004).

The distinction between the “exogenous” and the “endogenous” components of catastrophes comes from two theoretical definitions: the first, based on hazard, is the hazard-based approach: it analyses the “natural” causes of a catastrophe (i.e. a geophysical hazard). The second – more distinctly sociological – is the catastrophe – based approach, which highlights and emphasises the role of human communities and their behaviour during the emergency phase, the management, and the disaster preparedness and prevention (Smith, 2002).

Apart from the hazard, in fact, vulnerability is considered a key condition for a hazard to become a catastrophe. Therefore, if the hazard can be generally difficult to reduce, vulnerability is a social construction. In fact, if the hazard can be only partially influenced by human action, vulnerability is a man-made construction.

### ***Vulnerability, a human construction?***

Vulnerability comes from the Latin verb *vulnerare* that means, “to wound” and the adjective *vulnerabilis*, meaning, “that can be wounded”: so it recalls the fragility of a system and its inclination to suffer damages. The meaning of vulnerability encompasses exposure to hazards, shocks and stress, and it considers, for example, the access to education, entitlement and participation in policy-making process. Vulnerability can be considered a key condition for a risk to become a catastrophe: if the hazard can be difficult to reduce, vulnerability is a social construction and a superstructure of the society.

#### *a. The different definitions of vulnerability*

The following formula is frequently used to express this definition:  $\text{Vulnerability} = \text{Exposure} * \text{Sensitivity} / \text{Adaptive Capacity}$ , where “exposure” is about a system subject to the experience of stressors or hazards; “sensitivity” refers to a system’s responsiveness to the stressors and “adaptive capacity” is related to “*a system’s ability to reduce its exposure and sensitivity as well as the capacity to respond to existing impacts*” (Fünfgeld and McEvoy, 2011: 41). Hence, vulnerability is a key concept in predicting and understanding the existence of differentiated impacts on the various groups in a society.

Vulnerability is a more dynamic concept than poverty, several anthropogenic factors, in fact, contribute to determine the consequences of natural hazards: economic, demographic, social, cultural and psychological features, which are also interconnected between themselves (Tol et al., 1998). In each human community, vulnerability is the key feature that determines the evolution of a disaster into a social catastrophe.

Nevertheless, common to all of these definitions is that vulnerability generally has a human or a “society-centred” perspective. A few of the leading definitions from this field include Blaikie et al. (1994: 9) which defines vulnerability as “*the characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impacts of natural hazard*” and Burton et al. (1978), which discusses vulnerability as a “*result of change placing people at risk*”.

This is why, development and poverty experts, and welfare economists often use the concept of vulnerability a bit differently: most draw extensively from the work of Sen (1976) and his work that connects the fragility of humanity with the concepts of entitlements and government failures: it is therefore important to understand how vulnerability is composed by different dimensions.

#### *b. The social and political determinants of vulnerability*

Vulnerability depends, of course, on the natural environment in which a community is placed. However, this issue is strictly linked with the entitlement and the basic needs access, the decision-making power of the community and – within the community – to the fact that the most poor (not only in term of economic resources) are the most marginalised and excluded. “*Socially created vulnerabilities are mostly ignored, which also explains why social losses are normally absent in after-disaster cost/loss estimation reports*” (Cutter et al, 2003: 243).

Enarson (2004: 2) lined out how it is “*not the physical hazard (linked with natural disasters) but the socially constructed vulnerability the defencelessness to disasters (e.g. low-income women, or indigenous living in mobile homes on flood plains, linked with natural catastrophes) at the heart of the process of designing disasters*” that is linked to a “*planned vulnerability*” (Revet, 2007: 10): for this reason as expressed by IOM in 1992

*“It is not natural disasters alone that generate risk, but rather the state of human development that shapes vulnerability to disasters”.*

According to the capabilities approach framework (Sen, 1992, Sen and Nussbaum, 1993), among the factors that inscribe vulnerability within a community one can notice: living below the poverty line, having a lack of economic/social resources and networks, and having a lack of access to resources. It also means having a shortage in savings, credit, and causality insurances. The lack of capabilities also concerns a shortage of the basic liberties, such as the freedom of movement (depending on functioning caregiving systems – as paid and unpaid caregivers –, depending on public transportation) and the choice of occupation, powers and prerogatives of offices, and positions of responsibility.

Apart from the academic debate, which externalises the difficulty to relate such a complex and multi casual phenomenon to a single definition, we have to underline that the use of all those definitions still remains a prerogative of Global South communities.

Even if it is very unlikely that in Northern Countries we will individuate refugee or migrant communities because of environmental degradation, it is important to focus on the different forms of mobility, displacements, and resettlements that constantly happen also in Global North countries, in order to facilitate the recognition of the phenomenon and proceeding by analogues to better understand the dynamics – maybe more invasive and destructive, but not more important – that can happen in other countries where the institutional framework or the ecological system supply chain is weaker.

### **I.1.c The research hypotheses and their framework**

The main hypothesis deals with the theoretical debate about the definition and the conceptualisation of the phenomenon of environmentally induced displacement. It tries to extend the data, obtained through the observation of the Italian examples and the fieldwork research into a more general frame: *it is possible to recognise a political design to hide the phenomenon of environmentally induced displacement in the Global North*. This hypothesis considers the issue of environmentally induced displacement in a more global way, trying to generalise fieldwork findings.

In order to verify this hypothesis it seems to be necessary to consider other two under-hypotheses first.

- 1.1 *Environmentally induced displacement is considered as a prerogative of Global South:* this first under-hypothesis considers that the environmental degradation-mobility nexus is exaggerated in Global South by media, authorities, and governments.
- 1.2 *There is a political design about the maximisation of the phenomenon in Global South and the minimisation of the same phenomenon in Global North:* this hypothesis emerged after the observation of the Italian case. I want to investigate the application of this concept in different geographical areas.

These hypotheses and their corollaries are necessary to answer to the main question. They also allow to proceed in the research process and in the analysis of the environmentally induced displacement phenomenon in Italy. Moreover, they help in the generalisation from the case of Italy in order to try to deconstruct the mainstream point of view and in order to understand the motivations and the consequences of the minimisation of the phenomenon in the Global North and the maximisation of it in the Global South.

The hypotheses are verified considering different methodologies, specifically explained in the next chapter: “second hand” data and “first hand” observation and findings from the fieldworks are gathered together in order to give a more comprehensive answer to the questions arising from these hypotheses and their corollary.

## **I. 2 A qualitative methodology**

### **Introduction**

After having explored the conceptual underpinnings of this research (environmentally induced displacement, catastrophe and vulnerability), and the lens through which I analyse the question arising from my hypotheses, I can now describe the methodological approach used in this research before moving to the empirical observation part.

A qualitative methodology has been chosen because it has been considered the best approach to cross political science and geographical tools. In fact, it allowed focusing on a multi-method to describe the rich interpersonal, social and cultural contexts of the perception of the phenomenon of environmentally induced displacements in order to understand why it is minimised or maximised depending on the reference context.

According to Denzin and Lincoln, “*qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them [...using a...] variety of empirical materials – case study, personal experience, introspective, life story, interview, observational, historical, interactional and visual texts – that describe routine and problematic moments and meanings in individuals’ lives*” (1994: 2).

Another element that should be taken into account is the fact that since this study concerns living people, it has been necessary to always maintain a high level of ethic concern not only during the fieldwork – where preserving confidentiality is a crucial issue –, but also in the process of inference where it becomes a moral concern when interpreting data (Rademacher-Schulz, 2012). This is because a qualitative research opens to the personal voice of the researcher, as a means of providing details and insights needs to be strongly supported by a theoretical framework (Cresswell, 1994).

In this chapter, I firstly present the choice to adopt an empirical approach; secondly, I justify the choice of the Italian case; thirdly, I present the two cases of Sarno and Cerzeto.

### **I.2.a An empirical approach**

In order to provide an empirical approach to the theoretical debate about the phenomenon, I have decided to encompass the controversies about the labels given to the people that experienced mobility in the aftermath of catastrophes, focusing on the deep reasons which lead to the different conceptualisations, or definitions, given by the different actors which participate in the discourse surrounding of this social and political phenomenon. The justification of this approach, the presentation of the elaboration process and the data are presented in this section.

#### ***The protocol of the research***

Firstly, I needed a deep knowledge about environmentally induced displacement theoretical framework: the bibliographic material used to investigate this issue came from different disciplines such as geography, sociology, political sciences, physical sciences and economics. In order to design the case study it has been necessary to define a protocol for the progress of the study and its trustworthiness and repeatability.

According to the theory (Yin, 1994), in fact, the protocol helps the researcher to focus on the principal objectives and goals of his field investigation (among the two concerned communities, the experts, the institutions and the associations) and to collect “second hand” data (reviewed literature, previous researches, newspaper articles and institutional reports) in order to better organise the empirical example<sup>8</sup>.

Secondly, from the observation of the Italian case, in fact, in order to understand why a different treatment of the same phenomenon is done, data analysis has become an interactive and cyclical process (Miles and Huberman, 1994).

Thirdly, as this process continued, new issues were drawn, questioning the definition of the issue, leading to new themes about human mobility in the aftermath of catastrophes, and emerging new ideas about the politicisation of environmentally related issues. Nevertheless, in order to make inference from a single case a starting point for further research concerning environmentally induced displacement in Global North countries – as in the case of my thesis – it is important that this process is performed

---

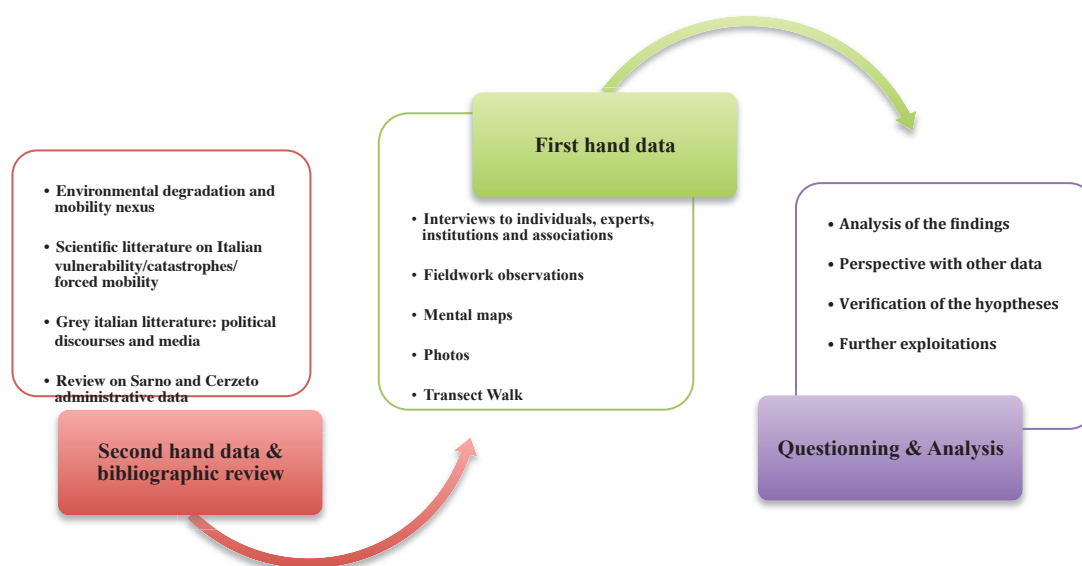
<sup>8</sup>In this sense, I do not just consider the perspective of the actors, but also the point of view of other groups involved in the event and their interaction.



starting from established theory in the field of study, “used as a template with which to compare the empirical results of the case study” (Rowley, 2002: 20).

The different steps of the research process figures in the following **Graph 2** that helps to understand the different steps of the study and have a snapshot over the methodologies adopted in the different phases.

**Graph 2: The phases of the research**



Source: Personal elaboration.

### ***The empirical observation***

The natural setting analysed during the two fieldworks provided “*richness and holism*” (Miles and Huberman, 1984: 10) to the bibliographical and theoretical approach, also revealing complexity and “*providing thick descriptions that are vivid, nested in a real context*” (*ibidem*: 10). In this way, in collecting data for my analysis, I understood that the evidence from fieldwork cast doubts about the main questions of the protocol and about the main topics of the research.

Therefore, case studies are likely to be close to naturalistic observations, but the researcher has to be very careful in the process of generalisation being subject to suggestions. The look to the social interactions (Hacking, 1999), crossed with the analysis of the coverage done by the media (Scheufele, 1999) and by public authorities

(D’Almeida, 2007) – which consider the phenomenon of environmentally induced displacement as static phenomenon – evidences how crucial is to properly design the research, how important is to structure the solidness of the research and its durability and reliability. Moreover, since in our society it is difficult to separate science and politics, geography and international relations (Blok, 2010), it has been necessary to consider not only how the anthropogenic activities affect nature, but also how the conceptualisation of neutral concepts become politicised.

The self-representation of the affected communities – when looking at “second hand” data – helps to understand how the environmentally induced displacement phenomenon narration is constructed, where it seems to stand, and whereas it is recognised or not in the community itself.

### ***The data collection***

Several source of data have been analysed in order to explore the different political discourses, the media coverage and the self-definition about the phenomenon of environmentally induced displacement.

This is why, both for the fieldwork and for the process of inference from the Italian case, I investigated not only the scientific literature, but also the “grey” one: International Organisation studies and reports, documents produced by NGOs and local associations, newspaper articles (Italian and foreign ones), documentaries, movies, photo galleries available generally on Internet and on the dedicated websites, in order to complete the study on the phenomenon itself and its spatial and temporal construction.

Moreover, I tried to provide both a geographical and a political analysis, mobilising a theoretical literature of both discipline, as presented in bibliography. From the study of literature and the observation from the Italian case and the exploratory fieldworks, I was able to start the description and the analysis of the data. From these previous findings, then, I was able to deeply explore the discourses and the debates about the environmentally induced displacement phenomenon to put in perspective the empirical evidence with other studies in different geographical contexts.

### *The empirical investigation tools*

Different tools have been used to collect the “first hand” data.

- 1) The fieldwork observation, through different stays in Sarno and Cerzeto;
- 2) The collection of administrative data and press articles;
- 3) The collection of interviews from the concerned communities, but also from experts, associations and authority representatives;
- 4) Mental maps of the individuals concerned in the displacement/mobility;
- 5) Transect walk with the interviewed;
- 6) Photos about the visited place.

To enhance the “triangulation”<sup>9</sup>, I crossed the results of the exploratory fieldwork with different sources of “second hand” data information (Mantovani and Spagnoli, 2003) such as, observations, interviews, documents, artefacts, recordings and photographs in order to give more ontological authenticity to the object of study (Seale, 1999). This is because, *“A field researcher attempts somehow or other to construct a ‘qualitative exactness’ which rests on some simple principles: the triangulation and empirical research of strategic groups, reiteration, interpretative explication, the construction of describers, the saturation of information, the witness social group and last but not least, the management of suggestive evasive answers”* (Olivier de Sardan, 1995: 71).

The complex articulation of these instruments helped me to point out and deepen the specificities of each case, each history and each community. These tools also helped me to retrace the similarities and the differences of the two analysed examples of environmentally induced mobility. During the fieldwork, in fact, I firstly mobilised a geographical and anthropological approach to situate, localise, describe the fieldwork and conduct interviews in order to better understand the spatial strategies of the given communities. Then, I used a political and sociological approach in order to read the behaviour of the two communities and their adaptive strategies to face the phenomenon. Thirdly, I mobilised a political-economic approach in order to describe

---

<sup>9</sup> *“Triangulation is a method used by qualitative researchers to check and establish validity in their studies by analyzing a research question from multiple perspectives.”* (Guion, Diehl, and McDonald, 2011).

the behaviours of institutions and of the authorities in the management of the catastrophes and a critical discourse analysis to investigate the treatment and the coverage of the subject.

After having analysed the Italian cases, I was indeed able to provide a process of inference considering other case studies, other bibliographic materials and questioning the provided “second hand” data, with my own findings to open to new analyses and further exploitations.

### **I.2.b The choice of Italy**

Italy could represent a good example to study the conceptualisation and the representation of the environmentally induced displacement issue in the Global North.

The evidence from the Italian case, in fact, can be extrapolated as the example of what catastrophes, vulnerability, and the phenomenon of environmentally induced displacement mean in a Global North context. Italy ranks as one of the most developed countries in the world according to different indexes, but is one of the most vulnerable too. It is exposed to different natural hazards, and it is very fragmented and full of cleavages from a demographic, economic, cultural and social point of view (Putnam et al., 1994).

I was motivated to study empirically this geographical context regarding the discourses and the debates surrounding the environmentally induced displacement issue.

This choice is related to my personal experience and my family background but also because of its pertinence in the analysis of environmentally induced displacements, frequency of disasters, natural risk exposure and social vulnerability.

For all the mentioned reasons, Italy is a very interesting case study in order to analyse the complexity of the phenomenon of environmentally induced displacement and its coverage by media and public authorities. Moreover, the accessibility to the data sources, thanks to the fact that I am an Italian native speaker, gave me the possibility to better interact with interviewees and have a deeper knowledge about the general culture and habits of this country, even if I recognise that I am an insider to the Italian context and that this could generate a bias in the analysis of the results<sup>10</sup>.

---

<sup>10</sup> Guiart (2009) analyses how one can have a great ethnological and anthropological experience

### ***Insider or outsider? This is the question***

Since the past, qualitative researchers are debating on the costs and the benefits of belonging to the communities they study. Already in 1972, Merton summarized the opposing views: the “Outsider” doctrine and the “Insider” one. According to the author, the first values to the researcher who is able to be neutral and detached from the observed community. In addition, Simmel claims that outsider researchers are valued for their objectivity, “*which permits the stranger to experience and treat even his close relationships as though from a bird’s-eye view.*” (1950: 405).

Contrarily, the “Insider” doctrine gives to researchers specific instruments useful to understand codes that the outsider will never deeply understand. This position allows the insider to obtain a richer set of data (Dwyer and Buckle 2009) but it also biases the research in the sense that it is difficult to separate one’s own experience from those of the respondent, as noticed by Kanuha (2000).

Many critics could be moved to my position of “insider” considering “*the degree of objectivity and the question of factual validity of an insider perspective*” (Higate and Cameron, 2006: 222) taking into account that my position could have triggered different issues concerning the conduct of research and participant relationships. The critics could also concern the fact that I was “*too familiar with the setting for the unfamiliar and exotic to arouse curiosity*” (Jaffe, 1997: 146) and “*too close, too involved, and lacking detachment*” (O’Reilly, 2009: 111).

As a defence of my position of “insider,” I can only hope that my vision will “*offer more detailed and complex descriptions and interpretations while outsiders created accounts tend to be more broadly generalized or stereotyped*” (*ibidem*: 114). I do not think that being an insider makes me a better or worse researcher: it just makes me a different researcher.

During my fieldwork, I stayed with families who decided to share with me not only their tragedy, but also the narration of the strategies they adopted to cope with it. I respected at ethnographic level the culture and the codes of the place that, as an insider,

---

from the study of his own country because it is possible to deeply understand the dynamics of a given society. He underlines how the researcher has to be careful in the sense that working in a confident environment can make him “blind” in the analysis of the fieldwork.

I already knew. It gave me the possibility to have a deeper relation with the respondents, through the creation of a high degree of confidence.

This is the main reason because of which, I decided not to carry on a large-scale inquiry, but to focus on the specificities of the experiences of few families (22 in total) taking advantage of my privileged point of view. In addition, the fact that I can speak the dialect of the area, allowed me to have more emphatic conversation with people. In fact, according to O' Reilly (2009: 114) *“insiders blend in more, gain more rapport, participate more easily, have more linguistic competence with which to ask more subtle questions on more complex issues, and are better at reading non-verbal communications.”*

Recently, the debate between insider/outsider moved from this dichotomist division to a more nuanced definition: Dwyer and Buckle (2009) have called it “the space between.” This is characterised by a multidimensional space. In both cases – being insider or outsider – the cultural identity of the researcher tends to influence the participants' attitude or answers. The role of the researcher is, indeed, to understand its level of influence, its relation with the respondent both in the empirical research process and during the analysis of the data in order to avoid biased outcomes.

### **I.2.c The choice of the empirical examples**

Undoubtedly, there is the necessity to deeply investigate the utilisation of the concept of environmentally induced displacement in this country (to analyse the behaviour of the displaced themselves, the experts, the authorities, the local associations) through an empirical study. For that reason, the empirical approach uses the two examples of Sarno and Cerzeto to analyse the impact of two hydrogeological events on the two communities' mobility. To illustrate the empirical studies, I use some scientific literature concepts related to human mobility and vulnerability.

The methodology I used is characterized by a qualitative and inductive approach, aiming to triangulate data sources: *“‘What is happening or has happened?’ – or an explanatory question – ‘How or why did something happen?’ As contrasting examples, alternative research methods are more appropriate when addressing two*

*other types of questions: an initiative's effectiveness in producing a particular outcome (experiments and quasi-experiments address this question) and how often something has happened (surveys address this question). However, the other methods are not likely to provide the rich descriptions or the insightful explanations that might arise from doing a case study” (Yin, 2012: 5).*

In order to deeply understand the different kind of conceptualisations concerning the phenomenon of environmentally induced displacement in the Global North and in the Global South, I have decided to provide empirical examples from Italy, where hydrogeological hazards have induced long-lasting displacements in a particular demographic, social, cultural, and economic context.

The political management of, and the responses to this phenomenon, the perception of the affected population and the media representation are useful to acquire a comprehensive knowledge of the definition of the phenomenon in a Global North country. The study of Sarno and Cerzeto communities gives more substance to the research and tests a theoretical framework with an empirical study. In fact, Yin (1994: 13) defines a case study as *“an empirical inquiry that investigates contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.”*

A case study in social science can clearly illustrate a method or key point and can also provide elements to support a thesis. Sarno and Cerzeto (the red spots on **Map 1**, page 47) are both situated in Southern Italy and have been chosen because of different reasons. First of all, they have a theoretical pertinence in relation to the research objectives (the analysis of environmentally induced displacement). Secondly, they are exemplary because of their intrinsic physical and social characteristics.

First, the fact of analysing two case studies in the same national territory is an element of interest because my objective is to show accurately how the phenomenon of environmentally induced displacement becomes a political issue, how it is conceptualised, minimised or overexposed, which I am better able to do by having an in-depth view on the Italian context.

Secondly, the two cases were selected because they have experienced the same “natural” event, but the answer has been completely different. I do not provide a comparison of the two cases, but they are just additional: the differences in term of



coverage, mobility/displacement and treatment that followed them are sufficient to have a snapshot on the conceptualisation of the phenomenon in Italy.

Thirdly, the choice of a landslide rather than another natural hazard, stands because, as I will explain later, it is the most common hazard in Italy and because landslides are more connected to human activity rather than volcano eruptions or earthquakes.

Finally, the 7-years gap between the two catastrophes can be considered a medium-term through which analyse the different perception, the different memorialisation and narrative considering the catastrophes and their related mobility, but also a sufficient time to understand the different political response.

**Map 1: Localisation of the observatory fieldwork sites**



*Source: Personal elaboration from Geographix (2014).*

During the observatory fieldwork, I analysed the demographic, social, economic and political structures and capital of the two communities, before and after the catastrophe,

considering the community's perceptions about risk and vulnerability and the consequent mobility as well as the media and political definition of their displacement.

To carry on my observatory fieldwork I spent 6 months in Southern Italy I collected my primary data thanks to the interviews and the meetings I had with local populations (individuals and families), local and national associations, local and national institutions and academics. To this purpose, I considered the actor-network theory: among the others Haraway (1988) and Pickering (1989). Furthermore, I also obtained secondary data concerning the communities and their geographical, social, economic and political characteristics for the two case studies. All this *corpus* of data is useful to analyse the subject in a descriptive, comparative and inclusive perspective.

The analysis of Sarno and Cerzeto is presented in order to illustrate a research field that seems to be based on very little theoretical knowledge (Siggelkow, 2007), namely the environmentally induced displacement phenomenon in Global North countries. Economics and political science tools have been used in order to analyse the political management and the governance system put in place to organise the local communities' mobility, new resettlements, economic compensations and territorial space in the aftermath of the catastrophe, during the emergency period and in a longer-term perspective.

### ***Fieldwork specificities and difficulties***

These two experiences of fieldwork were for me a first approach to empirical research. I tried to complete my political sciences background with geographical tools, but it has been very stimulating to compare the theories and the theoretical background with the specificities of the fieldwork and to handle interviews, photos and other "first hand" material. Even if I lacked of financial resources I remained 6 months on the field, using my social network in that area. Nevertheless, the observations I have done have not been confirmed through a second fieldwork because of a lack of budget.

Besides the difficulties I focused on the quality of the interviews and on the maximisation of the time because, knowing the fieldwork, I was not subjected to culture shock in the discovering of a new culture (Rapport and Overing, 2007). Their accessibility and the importance they have in my personal history have meant a *surplus*

value in the choice of analysing two different environmentally induced displacements and their management.

In the two cases of Sarno and Cerzeto, meeting people has been very different. In Sarno, the fact that I come from the same region, allowed me to have a more direct access to people. In particular, in Sarno, I was able to share important moments within the families, who invited me for lunch or coffee time. In the Southern Italy culture, sharing coffee and the table are actions that have an enormous symbolism. They presuppose the idea to be welcomed in a “new family” and determine the fact to be part of it. These unwritten codes implied that in every family that I visited, I had to bring something (cakes, cookies, flowers) and I was always invited to spend more time and share about the histories and the experiences.

Contrarily, in the case of Cerzeto, the interaction with the local population has been much more difficult, and building the necessary level of confidence with the respondent took more time. The women, because of traditional values, are rarely present in the public space. Meeting men (mostly in coffees and pizzerias) rarely allowed me to inquiry within the family or to have a direct access to the houses because of gender barriers. Moreover, the fact that the village is predominantly constituted by Italo-Albanians creates linguistic barriers for someone, like me, who does not speak Arbëreshë, the local language, preserved by the Law 482/99<sup>11</sup>. In this case, I avoided stereotypes, trying always to have a fresh approach, without prejudices.

Despite the political sensitivities of the issue and difficulties to obtain permission to visit the old settlement (in the case of Cerzeto) and to consult the bibliographic archival (in the case of the ARCADIS for Sarno), after several failed attempts, I was able to access the old settlement and partially consult the documentary archive.

---

<sup>11</sup> “*Norme in materia delle minoranze linguistiche*”. Law concerning the linguistic minorities

## Conclusion to part I

Only after having developed the research design, defined a research protocol, presented the main hypotheses and the specific adopted methodology, it was possible to investigate the two case studies, casting doubts on theories and other rival explanations, in order to enhance the research in the fieldwork that investigates the nexus between environmental degradation and mobility.

Thus, at the end of the analysis of the data *corpus* (“first hand” and “second hand”), I provide a presentation not merely to provide a “proof” of the main question, but also to open the research to further uses. The empirical methodology is reliable only when executed with due care, mostly in a very young research field, where each case study can be considered as very significant in new theories building to illustrate their pertinence and their utility.

The literature, while not extensive, contains specific guidelines for researchers to follow in carrying out case studies. The researchers through their works have designed protocols for conducting the case study, which enhance the reliability and validity of the investigation from its choice, its data collection, its analysis in accord with the goals and objectives of the study. They proved very useful mostly in the controversial field of the environmental degradation and mobility nexus and in the wider understanding of the conceptualisation of this phenomenon by the different actors – that participate to its creation and reproduction in different geographical contexts – starting from the evidence of the two Italian studies.

To provide an analysis of the discourses and the debate about the definitions and the use of the concept of environmentally induced displacement in Global North I have decided to use an empirical approach. The qualitative methodology allowed me to have a descriptive and exploratory research design and to describe the data on the studied phenomenon.

In addition, the qualitative method has been useful in order to provide insights and to understand the issue of environmentally induced displacement. Looking at the findings from the fieldwork and the theoretical elements, it is possible to understand better the narrative surrounding the phenomenon.

My evidence links environmental degradation and human mobility, but also shows the consequences of the minimisation and the maximisation of environmentally induced

displacement in different geographical areas. I can finally quote Eisenhardt, who states that case studies are “*Particularly well suited to new research areas or research areas for which existing theory seems inadequate. This type of work is highly complementary to incremental theory building from normal science research. The former is useful in early stages of research on a topic or when a fresh perspective is needed, whilst the latter is useful in later stages of knowledge*” (1989: 548-549).



## II. “Natural” disasters in Italy?

*“As soon as the idea of the Deluge had subsided,  
A hare stopped in the clover and swaying flower bells,  
and said a prayer to the rainbow,  
through the spider’s web.”*  
(A. Rimbaud, *Après le déluge*, 1875).

### Introduction

Italian disasters seem to have a predictable chronology. In fact, even if experts and environmental associations often alert the population and the authorities about the risks, after the calamity, rescues are attempted and the destiny and the fate are lamented. After that, authorities can pledge in order to rebuild the devastated towns: often in a second moment, a criminal investigation is opened, with little concern about preventive action for future hazards. Therefore, in order to understand why do Italian natural disasters often become social catastrophes, how political power manages them, how media represent and how population perceive them, I analysed the broader Italian context.

All those elements can be analysed through the lens of the Italian culture, media, and political system, but also in the intrinsic characteristics of the Italian territory, because of its morphological vulnerable structure (Lombardi, 2005; Legambiente, 2011). Moreover, the social cleavages between North and South, but also between rural periphery and urban centres, make this country a very interesting case study in the analysis of environmentally induced displacement in a Global North country (Lewanski and Liberatore, 2002).

This part consists of two different chapters focusing on different aspects of the Italian case.

In the first chapter, I analyse the Italian social and natural vulnerability and its exposure to risk, referring to an essential chronology about the damages that previous Italian calamities have caused. In addition, I analyse the juridical framework concerning disasters and risk prevention.

In the second chapter, I look at the cultural approach to risk and to disasters. Furthermore, I investigate the language used by the media to describe the emergencies and how the local and national authorities behave and react to calamities and their consequences.

The methodology used in this part is mostly funded on a literature review used to illustrate the Italian case. Different studies, coming from different disciplines have been used in order to give substance to this analysis: political science, geographical, geological, sociological, anthropological and economic papers, articles and books have been used to describe the Italian context. Moreover, the analysis of the press is used to describe the media attention over the catastrophes, considering the emergency phase and the long-term impact on populations.



## **II.1 Italian catastrophes: an inappropriate legal framework?**

### **Introduction**

In the aim to link the phenomenon of environmentally induced displacement and the two examples analysed during the exploratory fieldwork and their related discourses, I show, broadly speaking, the environmental degradation and the emergence of catastrophes in Italy (considering their social and environmental consequences).

Therefore, I draw the attention on the environmental and demographic deep transformations that occurred in the last decades, considering the increasing exposure to natural hazards and the incidence of calamities on the territory. This analysis also takes into account the changes in land-use and the management of the natural environment, the level of urbanisation and deforestation, but also pollution and environmental degradation patterns.

Those data are crossed with the structural damages, economic losses and fatal injuries which jeopardise the life of Italian communities, provoke phenomena of mobility in the short, medium and long-term, crack the human relations and induce the authorities to top-down actions of delocalisation and resettlement. This examination is crucial in the process of generalisation that uses the Italian case study in the analysis of the whole Global North context.

Therefore, in the aim of the environmentally induced displacement debate analysis, I now present the general context of the Italian case. First, I present the long history of catastrophes jeopardising the Italian territory, trying to retrace all the elements, which determine its vulnerability. Secondly I discuss about the economic damages and the losses provoked by such catastrophes also considering the preventive measures. In the third chapter, I introduce the analysis of the juridical framework surrounding the management of risk in Italy.

### II.1.a Vulnerability in the Italian context

From the Vesuvius eruption in 79 A.D., the plague in 14<sup>th</sup> century, the Vajont dam in 1963 in Veneto Region, the Seveso disaster in 1976 to the L'Aquila earthquake in 2009, history has always been studded with events that have jeopardized the life of the community and have influenced their life. **Map 2**, page 56, in this sense can be useful to locate all the mentioned catastrophes in the Italian territory.

Every year, catastrophes in Italy cause disasters that result in fatalities, injuries, human displacement and resettlement, loss of productive soil and crops, destruction to houses, properties and infrastructures (Celerino, 2004).

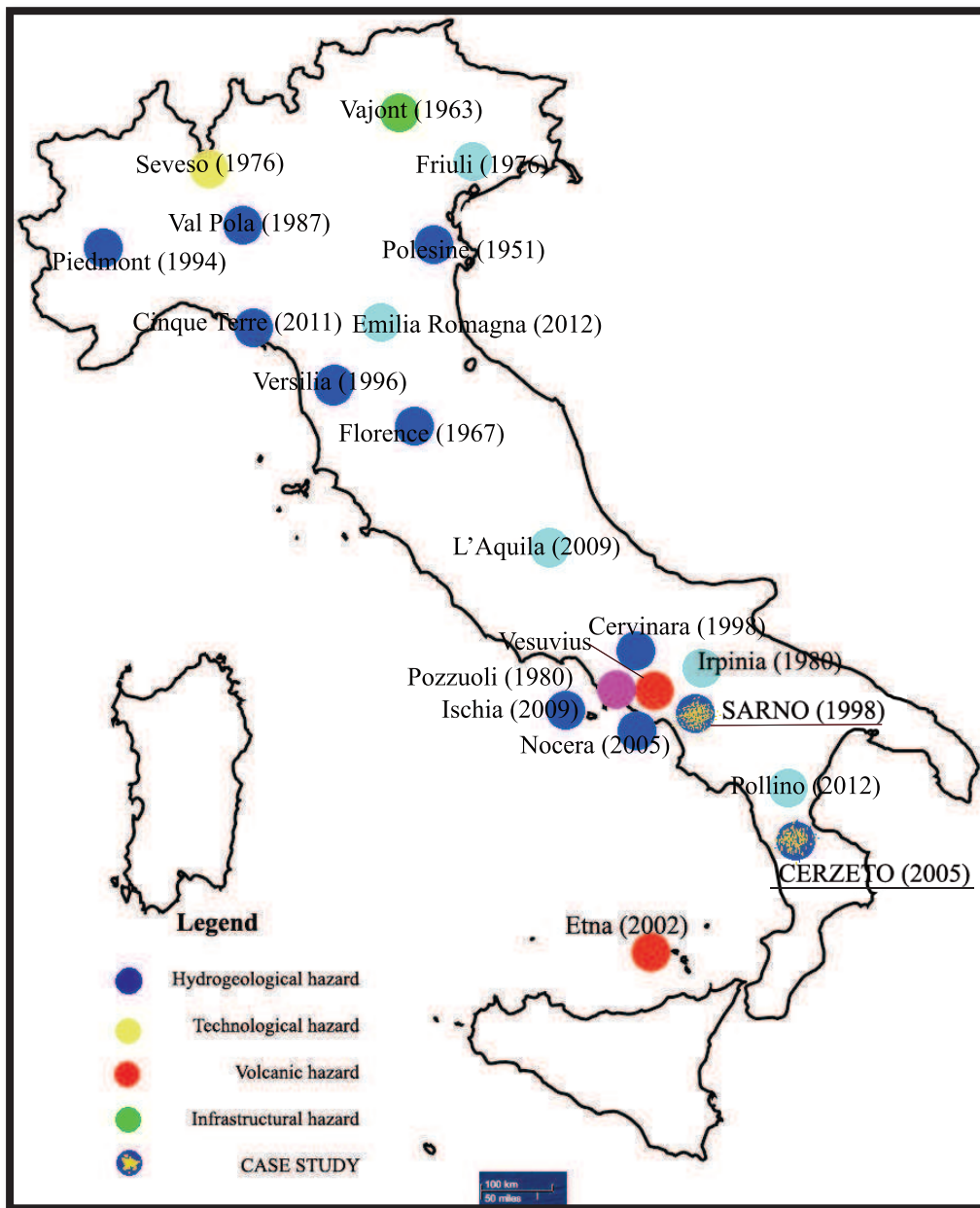
*“Environmental degradation has transformed both the landscape and the quality of life in Italy in many ways. Air pollution in cities and contamination of soil, groundwater and seas – with their impact on ecosystems, human health, and Italy's cultural heritage – are some cases in point”* (Lewanski and Liberatore, 2002: 203). Moreover, it is easy to recognise a different environmental approach on the peninsula, based on centre-periphery and North-South<sup>12</sup> divisions: a mix of rapid economic growth, social development and modernisation negatively affected natural environment, historic and artistic heritage, and resources since 1950s, generating cleavages concerning mostly the distribution of income. The explanations of this dualism have been proposed considering the fact that in the southern regions the population lacks the minimum sense of “civicness” needed for the development of public goods (Banfield 1958; Putnam et al., 1993). The tradition of “city-State” in the centre-north would have pushed towards a stronger perception of public interest, while the history of centralised government in the South was an obstacle.

Furthermore, it is important to notice that agriculture in the Centre-North was based (since the Renaissance onward) on family owned small properties or large capitalist enterprises, while in the South very large properties owned by nobles not involved in the management were predominant (Trigilia, 1999). In the Centre-North, an attitude towards entrepreneurship found a fertile ground, while in the South it did not happen.

---

<sup>12</sup> According to the division done by Arculeo and Marradi (1985) the South includes also Sicily and part of Sardinia.

**Map 2: Italian catastrophes mentioned in this thesis**



*Source: Personal elaboration.*

Territory is a concept that becomes politically relevant according to the interpretation and to the values assigned to it by communities and authorities. It becomes a concept created by people that organise the space according to their needs (Gottman, 1973).

In this sense, the high environmental vulnerability in Italy seems to be increased because of the lack of hydraulic infrastructures and poor investments in maintenance associated with a huge and chaotic urbanisation.

## *The Italian history of mobility*

Italy is one of the most developed countries in the world with the highest risk of landslide (Di Martire et al., 2012). Italy has constantly known migration patterns within the borders that have provoked a great concentration of population in industrialised areas, but also out of the borders to more developed countries, since the 19<sup>th</sup> century (Del Boca and Venturini, 2003).

The roots of Italian mobility can be partially individuated in environmental depletion and catastrophic events. The largest part of Italian mobility can be, in fact, retraced considering the emigration flows, especially from South and North East, which occurred in the period between 1861 (Italian unification) and the 1960s, that concerned almost 25 million Italians who were going to the US and Latin America, but also to France and Switzerland. Since the 1970s, instead, the internal migration became more frequent and from rural southern regions, hundreds of people arrived in the richer and industrialised cities such as Milan or Turin<sup>13</sup> in order to find a better standard of living.

Considering environmental displacements, the **Table 1**, page 58, shows a catalogue of hydrogeological events in Italy even if it is possible to notice how “*Non-instrumental records of natural events, including landslides and floods, are always affected by incompleteness, which is difficult to quantify*” (Salvati et al., 2010: 481).

**Table 1**, allows three preliminary considerations:

1. The number of landslides and flood catastrophes increases with time, even if the intensity and the consequences vary as well, if considering the number of casualties (deaths, missing people and injured people).
2. The numbers of evacuees and homeless people have been multiplied by 64 for landslides and by 28 for floods, for the period 1900-1949 (44,653) and the period 1950-2008 (497,334) if considering the previous periods. According to the authors, “*the total number of homeless and evacuated people caused both by landslides and floods in the year period 671–2008 exceeded 873,000. This is an approximate estimate, because values listed in initial reports may be overestimated, and for many records in the catalogue (28.8%) only qualitative figures are available*” (Salvati et al, 2010: 473).

---

<sup>13</sup> All the statistic data concerning Italian migration can be found at: <http://www.emigrati.it>, a database on internal and international migration.

3. “Even considering the increase in population that has occurred in Italy in the considered period, there is no reason for the distribution of less catastrophic events to be so skewed, except for incompleteness in the catalogue” (*ibidem*, 2010: 468). Inundation, floods, landslides, coastal instability are defined as “hydrogeological phenomena”<sup>14</sup> and they can result in the combination of meteorological and morphological, geological environment: the rapidity of the mud, lahar or debris flow caused by the hazardous phenomena such as seismic or volcanic phenomena, scarp erosions, can provoke damages and losses.

Even if the data presented in the following **Table 1** can be useful in order to understand the evolution of the mobility patterns consequent to hydrogeological hazard in Italy, the presented figures are very dubious considering that it is impossible to have precise statistics for the Middle Ages or the Renaissance, also considering that the unification of this country occurred in 1861.

The data presented in the following **Table 1** are interesting for two reasons. First, because it is possible to notice the importance accorded to the numbers and the statistics in social sciences, even if they are not verifiable and often obtained through non-systematic methodologies. Secondly, it is interesting to notice that this table is the reference used and recommended by National Civil Protection, association (such as Legambiente) and researchers to describe the phenomenon of environmentally induced displacement in Italy. It demonstrates the confusion surrounding the phenomenon and the vagueness of the quoted sources.

**Table 1: Human consequences of hydrogeological events along the history in Italy**

<i>Events</i>	<b>Landslides</b>				<b>Floods</b>			
<i>Period</i>	834-1841	1850-1899	1900-1949	<b>1950-2008</b>	671-1841	1850-1899	1900-1949	<b>1950-2008</b>
<i>Evacuees and homeless</i>	2,729	2,185	11,026	<b>177,376</b>	17,614	119,239	44,653	<b>497,334</b>

*Source: Personal elaboration from Salvati et al. (2010: 468).*

<sup>14</sup> Following Hansen (1984: 523) a complete definition of a landslide event could be “movement of soil or rock controlled by gravity, superficial or deep, with movement from slow to rapid, but not very slow, which involves materials which make up a mass that is a portion of the slope or the slope itself.”

One of the most important sources of hydrogeological risk knowledge is based on the documentation of past events: those are qualitative data, but very significant when analysing global hazardous events. Historic trends, collected in the “Census of the Italian areas hit by floods or landslides,”<sup>15</sup> can be a very useful tool to discover the past and present Italian vulnerability.

Wealth and economic inequalities, social and economic pressures, such as urbanisation, rural emigration, unemployment, and illegal land tenure practices, make Italian territory very vulnerable, and force individuals and families to live in dangerous areas: “*repeated exposure to disasters can lead the poor into a downward spiral of chronic poverty, even though poverty alone is not the only vulnerability factor*” (UNISDR, 2003: 10).

### ***The Italian vulnerability***

The vulnerability in Italy, but most of all, in Southern Italy (EU, 2009<sup>16</sup>), because of its specific features (economic, social, cultural and environments reasons) seems to be increased because of the “*lack of hydraulic infrastructures and poor investments in maintenance associated with a huge and chaotic urbanisation*”<sup>17</sup> (Celerino, 2004: 26-29). Therefore, the catastrophic events linked with hydro-geological phenomena become more triggering, provoking damages to agriculture and crops, but also biologic damages such as sickness linked to the pollution and environmental degradation.

The economic and technological transformations in the agriculture and in the industry sectors in the last two centuries have been two important factors of an enormous economic growth in Italy: this is because “*environmental risks, including chronic and catastrophic forms of ‘natural disasters’, occur as a part of the development process*” (Pelling, 2003: 6). At the same time, this growth has entailed a

---

<sup>15</sup> Available at: [http://avi.gndci.cnr.it/it/progetto/introprogetto\\_it.htm](http://avi.gndci.cnr.it/it/progetto/introprogetto_it.htm), last access January 2014.

<sup>16</sup> EU (2009), “*The economics of climate change adaptation in EU coastal areas*” available at [http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/italy\\_climate\\_change\\_en.pdf](http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/italy_climate_change_en.pdf), last access February 2014.

<sup>17</sup> According to the Istat (2010), 44.6% of the Italians live in areas of high degree of urbanisation, while the 39.3% live in Municipalities that have an average urbanization: only the 16.1% lives in low-level urbanisation areas.

detriment of natural ecosystems. Emission of several air pollutants, deforestation<sup>18</sup> and timber cutting, land reclamation, water-courses misuse, mountain digs and excessive mining, have been considered necessary to complete the process of industrialisation and urbanisation of the Italian peninsula. This reflects the natural “metabolism” of the cities that involve a process where there is a flow of raw materials (from increasingly distant environments) that turn into products and waste in order to satisfy urban needs.

*“Solid refuses are, in fact, in many Italian Municipalities a serious problem, because Italy lacks adequate disposal facilities for urban and industrial refuse, including toxic waste”* (Lewanski and Liberatore, 2002: 207). The use of wood to produce energy, to create an extensive agriculture, or just to enhance building land, is one of the principal elements that increase landslide effects, as for the case of Sarno, where the delicate equilibrium of the slopes have been significantly unsettled because of a mismanagement of the forest (Guadagno et al., 2003).

### ***Changes in agricultural patterns and urbanisation***

After the II World War, the industry becomes the driving economic sectors replacing the agricultural system and the State funding were channelled into this sector. *“In 1951 the active population in the rural areas was the 42.2% of total population where in 1961, was about 29.1%”* (Galeotti, 1970: 120). Considering the complexity of the elements that interplay in the process of environmental degradation, urbanisation is another factor that increases human vulnerability and hydrogeological risks, because it increases impermeable areas, that do not allow the infiltration of water, such as roads; the canalisation of water through hydraulic networks that are not capacious enough; and the construction of infrastructures such as bridges or harbours that reduce the capabilities of watercourses and hydrographical basins.

---

<sup>18</sup> Noé and Rossi-Doria (1977) note that the forestry Italian heritage has been undermined by a misuse of this resource. He analyses that the exploitation of this resource was bigger than the regeneration capabilities: according to him, many experts, in different Italian States, before the Italian unification, already knew this phenomenon.



Urbanisation<sup>19</sup> represents a progressive concentration (Davis, 1965) of the population in urban units. Each day 100 hectares of land in Italy are converted into cemented areas, and in forty years (from 1956 to 2012), the built national territory increased by 166%, and the agricultural areas decreased from 18 to 13 million hectares (Ispra, 2012). Moreover, the inadequacy and the lack of maintenance of hydraulic network infrastructures and the change of land use provoked landslides, such as in the case of the Vajont dam in 1963<sup>20</sup>.

The sprawl urbanisation increases vulnerability and jeopardises the life of human communities in natural ecosystems. In addition, the presence of unauthorised buildings, that reach 60% of total buildings, according to the National Urbanist Institute, increases the vulnerability of determined areas and the hydrogeological risk, such as in the case of the landslides of Cervinara, Nocera and Ischia in Campania. The causes of the changes in political economics derive from the stipulation of the 1957 constitutive European Common Market, the institution of the National Institution for Hydrocarbons<sup>21</sup>, and the Institution for Reconstruction<sup>22</sup>, that gave the possibility to provide energy to factories and infrastructures for urban development.

This phase in the Italian history was named the “*miracolo economico*,” namely the economic miracle (Cederna, 1980), and represented a strong element to foster South-North emigration, but also rural-urban mobility in the same region, becoming a real “exodus” to the cities. From 1951 to 1961, the population in cities raised from 29.1% of the population to 35.3% (Galeotti, 1971: 102). The growing cities were completely unprepared to receive this massive population and the immigrated communities often stabilised in risky areas, in the industrial periphery or in urban agglomeration areas where the ecological system appear jeopardised because of the overexploitation of natural resources (Ronzoni, 2001).

---

<sup>19</sup> Delimiting and defining “urban areas” is very difficult. One could individuate the economy or population density or size as key elements defining this complex system: those elements give to the cities a wider conglomerate of economic, social, political, environmental links and flow of goods, power, information and energy. According to the UN Habitat (1999), even if cities host only 1% of World population, they concentrate more than half of the total population: “*the city is manifestly a complicated thing*” (Harvey, 1973: 22).

<sup>20</sup> On 9 October 1963, a massive landslide fell into the reservoir: it destroyed the villages of Pirago, Rivalta, Faé, Longarone and Villanova, killing more than 2,000 people.

<sup>21</sup> Ente Nazionale Idrocarburi (ENI).

<sup>22</sup> Istituto per la Ricostruzione (IRI).



## ***Environmental degradation and resource depletion***

This urban growth has generally been conducted in a non-planned way, without appropriate regulation and with no preventive consideration of human-natural environment linkages. The ancient irrigation canals have been transformed into landfills or roads, the mountain slopes are used as dumps or as quarries, and the urban centres insist more and more on risky areas, such as loose slopes, or flood plains (as in the Agro Nocerino-Sarnese area – in which Sarno is situated –, in Campania), often occupied by the more economically destitute communities (Celerino, 2004: 32).

For the environmental NGO Legambiente (2011) there are 1,121 municipalities in which the buildings have been constructed in a flood plain, next to river beds, in hydrological risk exposed areas: in 31% of the cases, they are full municipality districts, in 56% industrial areas (which increases technological risks) and in 20% of the cases public infrastructures (school and hospitals). Overall, one can infer that more than 5 million of Italians are exposed to flood or landslide risk.

The increase of hydrogeological hazardous phenomena can be easily related to human activity effects. Unauthorised building, often subject to an amnesty for infringement of local building regulations<sup>23</sup>, illegal mineral and wood extraction<sup>24</sup>, and intensive agriculture linked to massive urbanisation and the building of infrastructures, all definitively contributed to devastate the Italian hydraulic asset, creating more and more geological instability.

As well known, in fact, rainfall and earthquakes can be regarded as the two main triggers for landslides, but external actions that induce an immediate or quasi-immediate response of the slope, can be linked with incorrect land use and urbanisation.

According to the Ministry of the Environment, Territory and Sea report (2006), based on the analysis made by the different national Catchment Areas Authorities (AdB), according to Law n. 267/1998, 9.8% of the national territory (29,517 km<sup>2</sup>) is considered “very high risk”<sup>25</sup> and 70% of Italian cities are considered as

---

<sup>23</sup> Such as the one made in 1985, Law n. 47/85 that permitted the regularisation also for constructions built in vulnerable areas.

<sup>24</sup> As, for example the Borgo di Rivola mine.

<sup>25</sup> According to the Ministry of the Environment, Territory and Sea report, one can distinguish different level of natural risk: “*R1 – moderate risk: social, economic and environmental*

hydrogeological vulnerable (Direzione generale per la difesa del suolo, 2013).

**Map 3**, page 64, describes the areas of high hydrogeological critical state according to three different hydrogeological hazards: floods, landslides and avalanches, presenting a very vulnerable territory largely interested in hazardous phenomena all over the country. As one can notice, the Tyrrhenian Southern portion of the country is the most interested by the phenomenon of floods.

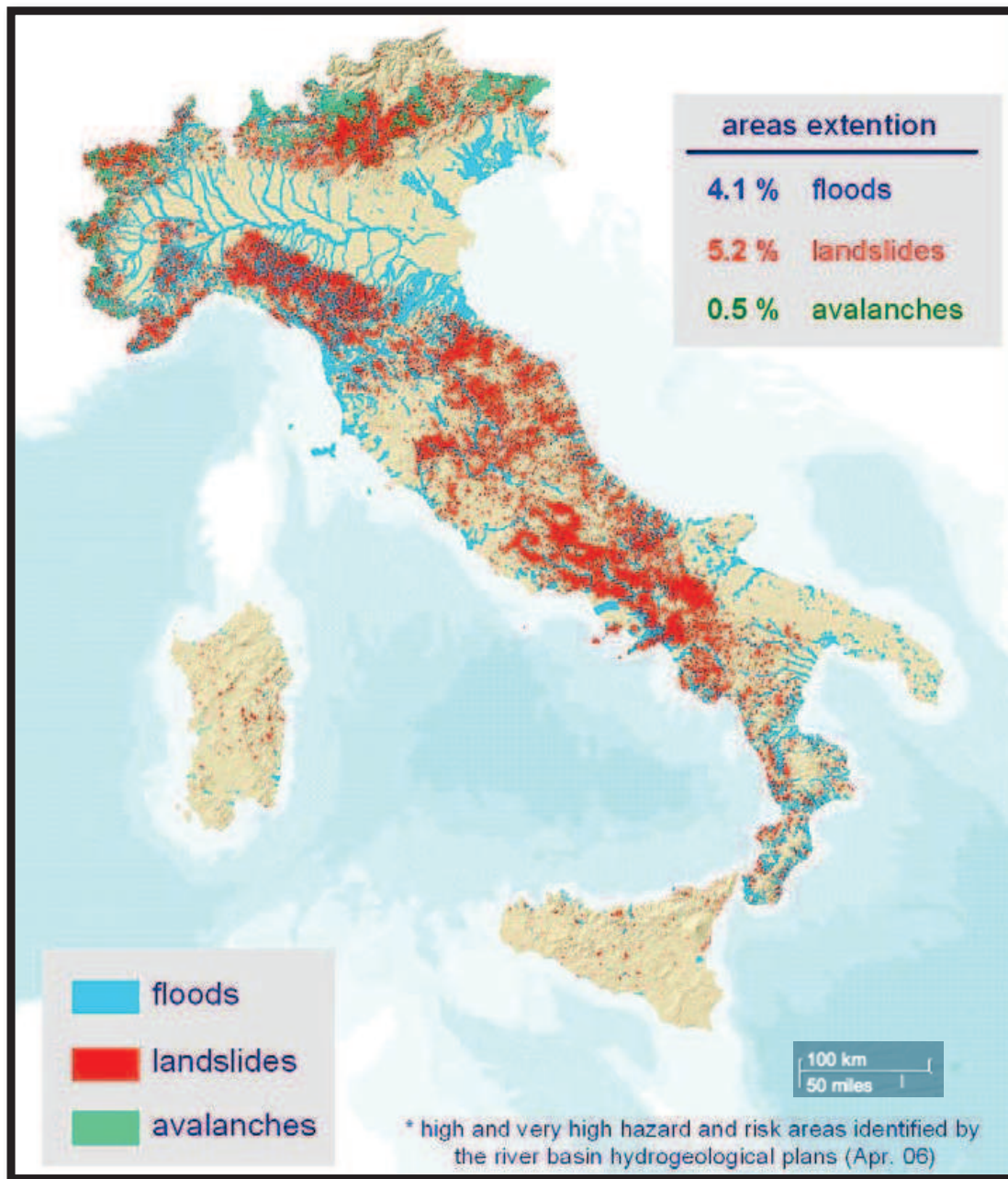
*“Flood risk is the damage expected to people, properties, the environment, infrastructures, industrial activities, considered as the combination of the probability of a flood event (hazard) and of the potential adverse consequences (value x vulnerability) to human health, the environment, the infrastructures and the economic activity associated with a flood event”* (Minambiente, 2006: 5). This map presents strange figures: it seems that the portion of the territory affected by hazardous events (floods, landslides or avalanches) is very limited and underestimated, if we compare the provided percentage and the effective representation.

Data provided by Legambiente (2009) in fact, seem to be more alarming: in 36% of the Italian cities (more than 60,000 inhabitants), there is no ordinary maintenance of watercourses, basins and related infrastructures; moreover, if 82% of total samples have an emergency plan, in 62% of cases there is an early warning system 24/24h, and in 26% of the cities awareness campaigns and drills have been organised. Those percentages are contrary to the international prescriptions, described in the Aarhus convention, adopted in 1998, during the fourth conference “Environment for Europe” and received in Italy with Law n. 108/2001, that expresses a direct link between human rights and the environment, such as information, safety and security, participation in decision-making and access to justice against administrative decisions in the environmental field.

---

*damages are low; R2 – medium risk: probability of minor damages to buildings infrastructures and environment, not compromising human safety, use and economic activities; R3 – high risk: envisaged problems to human safety; damages to buildings and infrastructures compromising their use and provoking hold-up of socio-economic activities and severe damages to the environment; R4 – very high risk: envisaged losses of human lives and severe lesions to persons; severe damages to buildings, infrastructures and the environment and socio-economic activities destruction”* (Minambiente, 2006: 4).

**Map 3: The map of Italian hydrogeological critical state\***



*Source: Minambiente (2006: 5).*

### ***When social and environmental factors cross***

Environmental degradation and inappropriate planning and legislation can exacerbate vulnerability (Pelling, 2003): this is because the creation of urban dwellers creates exclusion and denies the access to basic commodities. Moser et al. (2001) attributed a higher level of vulnerability of the urban “poor”, versus the rural ones, because of a lack

of intra-familiar solidarity and a shortage of “moral economy” (Scott, 1985). Also according to Blaikie et al. (1994) urban households have less possibility to cope against risk and are less resilient to natural disasters; the lack of human capital, enhanced by urban exclusion, could be opposed to the possibility of other asset models that involve labours, housings, possessions, trading, and key resources to mitigate environmental risk.

The higher vulnerability of the Southern part of the country can be historically recognised: the Italian philosopher and historian Croce in 1923 considered the history of the Reign of Naples (including almost all the regions of Southern Italy) as a “non-history.” History, in fact, should be an evolution process; because of calamities, catastrophes and disasters the history of this geographical area cannot be consider an evolution, but a regression. Instead of progressing, Southern Italy history repeats itself, never evolving.

According to Cutter, Mitchell, and Scott (2000), Cova and Church (1997) if on the one hand rural residents may be more vulnerable due to lower incomes and more dependent on locally based resource extraction economies (e.g., farming, fishing), on the other hand high-density areas residents could experience more difficulties in the evacuation of the area. Early urban studies (Lewis, 1966 and Lomnitz, 1977) individuated the importance of social networks as a support mechanism for low-income families also in peripheral settlements.

The “Degree of urbanisation” has been defined by Eurostat in the European Statistics on Income and Living Conditions, Eu-Silc<sup>26</sup>, as relative numbers of people who live in urban areas. The more “urbanised” Regions (where urbanisation reaches more than 60% of the territory) are Campania, Lombardia, Liguria e Lazio, while Sicily and Veneto reach 40%.

According to the Istat (2010), 44.6% of Italians live in areas of high degree of urbanisation, while the 39.3% in Municipalities that have an average urbanisation: only 16.1% lives in low-level urbanisation areas. The “Economic and Social Research Centre for Building and Territory” in 2010 individuated 26,500 unauthorised buildings: from 1995 to 2009, 4 million new buildings have been built, with the use

---

<sup>26</sup> The main criteria are the thinly-populated area (alternative name: rural area): more than 50 % of the population lives in rural grid cells; intermediate density area (alternative name: towns and suburbs): less than 50 % of the population lives in rural grid cells and less than 50 % lives in high-density clusters; densely populated area (alternative names: cities/urban centres/urban areas): at least 50 % lives in high-density clusters.

of 3 billion cubic meters of concrete: a cement flood that involves 500 km of new areas each year (Ispra, 2009).

This is why, to prevent hydrogeological risks, due to sprawl urbanisation and the unplanned building in exposed areas, Articles 4 and 7 of Law n. 47/85, on the urban and building activities, control and sanction the constructions, giving a new framework to protect the territory.

Moreover, recently, the Law Bill by the Ministry Council of 10 September 2012, outlines law for the development of agricultural areas and control of soil consumption, has two principal objectives: to limit the urbanisation on agricultural lands, stimulating the use of the areas already urbanised, creating a quota system among the Regions. The second goal is to promote agricultural activity that contributes to the natural ecosystem prevention, the management of the territory, limiting hydrogeological instability and enhancing a sustainable use of the territory.

In Italy the territorial instability, since the past, has been strictly linked to human economic activities, urbanisation and land use mismanagement: overall in the Southern part of the peninsula, economic, social and environmental vulnerability cross, each other enhancing the fragility of the territory and jeopardising the life of the population occupying these areas (Legambiente, 2011). Since the past, in fact, environmental degradation and sudden hazardous events provoked human displacements and other damages to the concerned population. How many damages the Italian calamity produced during the years? Which have been the principal losses? What happen to homeless and evacuated people? How natural disasters have become social catastrophes? The next paragraph is a useful tool that crosses an historical perspective of the major calamities in Italy with economic data. It provides a complete overview of the costs of a non-preventive action.

### **II.1.b Counting damages, counting losses**

Because of a deep environmental instability that crosses with a very high level of exposure of the communities, every year catastrophes in Italy cause disasters that result in fatalities, injuries, human displacement and resettlement, loss of productive soil and crops, destruction to houses, properties and infrastructures. Those material and

immaterial losses are principally caused by hydrogeological phenomena resulting in the combination of meteorological events and the geologic, morphologic and hydrogeological environments.

After the recent 2012 and 2013 catastrophes (namely the Emilia Romagna and the Pollino earthquakes (see **Map 2**, page 56), it is possible to observe an increasing awareness of the impact of disasters on society in the public discourse: the principal point of the discussion refers to the idea that the value of the loss can be measured by taking into account both direct costs, and primary and secondary indirect costs.

### ***The costs of the catastrophes***

Direct costs are related to loss of land, damages to property and crop, capital and machinery, thus to stocks, and primary indirect costs to business interruption, which means an interruption of the business flow (Parker, Green and Thompson, 1987). In this sense, the hydrological hazard (such as a mudflow provoked by a landslide) can be explored also considering the public economy field of study.

The economic analysis allows to quantify the economic losses caused by the catastrophe, but also to explain the management and the governance of the risk, the mitigation and the adaptation policies, considering their efficiency and their effectiveness. Harms linked to catastrophes can be considered as caused by limited preventive actions of public authorities in the territory that, on the contrary, should manage the catastrophe considering different stages: pre-disasters mitigation, pre-disaster preparedness, disaster response and post-disaster recovery (Clary, 1985). Non-mitigate action, in fact, can increase social development and economic damages consequent to disasters, as demonstrated in the long-term period in areas affected by the hydrological hazardous event (as for the case of Sarno).

Hydrologic damages can be considered as a “*diminution or a deterioration of the physical integrity or the patrimony of an individual*” (Celerino, 2004: 69) caused by a flood or a landslide. Landslides are more responsible for significantly higher economic losses and casualties than is generally recognised: in the case of hydrologic damage, the damage concept cannot be limited to analyse the losses, but it can be linked to the analysis of preventive policies, communities’ preparedness and



mitigation activities promoted by the deciders and on the other hand to the cost to restore and replace former activities and infrastructures (Rose and Lim, 2002).

Moreover, beside the direct and immediate impacts, that include all damages, loss of lives and injuries, plus employment losses due directly to the closure of damaged facilities, one can consider also the non-monetary impacts and intangible losses on households and communities such as increased stress, unemployment, breakdown of informal networks (family and friends), loss of opportunities, underdevelopment, health damage and loss of memorabilia and communitarian sense can be far more significant than the direct material damage to homes and their content, even if the last are economically high.

In order to concretise the evidence already treated in this paragraph, evaluative economic data, obtained thanks to governmental reports and economics researches, are now provided. So, how much non-mitigate actions cost to society? What, instead, could be done in order to prevent these losses?

### *An on-going perspective*

The health harm caused by floods and landslides in Italy reaches 104.5 million euro per year (Salvati, Bianchi, Rossi and Guzzetti, 2010), where, concerning the evaluation of structural or infrastructural damages, ANCI/CRESME (2012) estimates an average year loss of 1.2 billion € per year. Data concerning the damages to human health are based on the average number of fatalities per year (70 victims) for landslides, more than 20 for floods) and the average number of injured per year (34 and 25 units)<sup>27</sup>. These figures can be a good example in the consideration of the importance of the preventive measures in the limitation of the economic impacts of catastrophes.

Other sources present different data for the same issue. These controversial figures show how difficult can be the determination of the data concerning economic damages and losses.

---

<sup>27</sup> Some economists (Casucci and Liberatore, 2012) consider that a human life estimation (according to VOSL – Value of statistical life) is worth 1.5 million euros and that an injury period of 2 months (according to DALY – Disability adjusted life year) is worth almost 5,800 euros.

The following **Table 2** translated from a paper of Casucci and Liberatore (2011) synthetically describes the average annual value of the costs associated with Italian natural disasters since 1950. According to the authors, the “damages” to people are death and injuries, while the material damages are the damages to public and private material goods (buildings, infrastructures...). The damages to people caused by landslides are 3 times more severe than the ones caused by flood.

Even if I could argue that this difference can be inferred because a more important number of landslides rather than floods, my intuition cannot be proven because of a lack of available data. Again, the sources of these data are not specified and the figures remain very dubious. Nevertheless, a part the verifiability of the data, the table easily shows how Italian hydrogeological hazards deeply affect the economic activities of this country and how a real preventive action could be necessary in order to prevent such expenditure. As underlined by Legambiente (2011), the National expenditure to face only the main hydrogeological catastrophes, from October 2009 to February 2011, has been of 574,394,400.00 euros.

**Table 2: A synthetic table on hydrogeological hazard damages and losses in Italy**

Description			Average annual value (millions of euro)
Level of expenditure	Hydrogeological hazard	Damages to people (landslides)	104.5
		Damages to people (flood)	31.0
		Material damages (landslides and floods)	1,200.0
	<b>TOTAL (million euro)</b>		<b>1335.5</b>

*Source: Casucci and Liberatore (2011)*

The two examples from Italy, considered in my thesis can be taken as an example of how a “natural” calamity can turn into a catastrophe, if we consider the health and economic damages provoked by it: Sarno landslides costed more than 380 million euros, while the Cerzeto calamity almost 100 million euros (Protezione Civile Nazionale, 2010) as it will be further presented in part III.



### *A lack of adequate measures?*

The Italian “passive defence” is famous: only after the catastrophe, the concerned areas are “secured” and often, from a basic cost-benefit analysis<sup>28</sup>, the lack of preventive measures is higher than the cost of the preventive measures themselves. From this point of view it is possible to analyse the data related to the National expenditure of The Ministry of the environment, the territory and the sea (Protezione Civile Nazionale, 2010) notes that in order to secure the National territory 43 billion euros would be needed.

From 1956 to 2000 the Ministry of Public Works, spent for the hydraulic asset more than 16.6 billion euros, (370 million per year), whereas the Regional expenditure from 1972 to 2000 was approximately 31.6 billion euros, (1 billion euros per year). From 1956 to 2000, around 48.2 billion euros were spent for the hydraulic asset; the average expenditure is bigger than 1 billion euros per year (Legambiente, 2011).

In the same sense, to give more concreteness to the economic frame it is interesting to analyse other sources. From 1944 to 2012 61.5 billion euros have been spent to face hydrogeological instability: nevertheless, in 10 years the competitive tenders for the accommodation and prevention of hydrogeological instability represent only 2% of the overall public infrastructure market (ANCI/CRESME, 2012), demonstrating how the expenditure post-calamity is higher than the preventive one.

Which are the elements that enhance vulnerability in the Italian territory? Which kind of juridical framework shapes the approach to the catastrophes?

It seems that the increment of catastrophes and related damages does not correspond to a substantial evolution of the normative *corpus*. This lack of adequacy enhances the vagueness of the institutional answer before and after catastrophes. Public opinion, media and normative guidelines are more and more sensitive to environmental and aftermath catastrophes mobility, but there are still few practical interventions in this sense, and laws or guidelines are not applied, increasing harms, losses, and causing an enhanced mobility during and after the emergencies.

This unplanned mobility causes injuries and creates more evacuees and displaced that could be prevented in managing and governing the risk in a more preventive and sustainable

---

<sup>28</sup> The cost-benefit analysis tries to reduce an investment project or a policy to a comparison of the money value of costs and money value of benefits (Barbier et al., 2000: 55).

way. This requires holistic and systematic integration of ecological, socioeconomic risk factors in the local and national management.

These fieldworks can be some examples of human mobility caused by landslides, provoked by a natural disaster, whose effects have been multiplied by human activities, turning the disaster itself into a social catastrophe. Moreover, the mismanagement of the evacuation, the economic implication of the event have been fatal not only in the production of deaths and injured, but also in the origination of displaced communities and environmental migrations. At the end of this overview on the economic damages provoked by hydrogeological calamities in Italy and considering its high level of exposure to risk, it is interesting to study the legal framework set up to face other hazardous events, their consequent mobility and other material and immaterial losses.

In order to understand the juridical framework in which environmentally induced displaced move in Italy and in order to give an overview on the evolution of this juridical frame, a chronological analysis of the normative dimension of the environmental risk management in Italy is going to be conveyed, through a personal juridical research.

### **II.1.c The legal framework**

In order to better understand the Italian context and to be able to deeply consider the phenomenon of environmentally induced displacement in this country as an example for Global North, I start to decline the legal framework concerning the subject. The evolution of the legal framework follows the principal disaster with a specific intervention. It rarely gives a global answer to the Italian environmental vulnerability as for the case of L'Aquila, where, in the aftermath of the seism, only a specific decree (n. 39/2009) and not a general law concerning the management of earthquakes was produced.

Therefore, it is now interesting to understand the specificities of this juridical frame. First, I analyse the evolution of the normative corpus concerning the management of the displacement consequent to environmental degradation and catastrophes. Secondly, I present the actors of this management: the local, regional and national authorities, National Civil Protection and the volunteers. Finally, I describe which has been the evolution of the normative corpus in relation to the most important catastrophes occurred in Italy, focusing on the hydrogeological hazard.

## *Managing the displacement in Italy*

Displacement to anticipate or to face the catastrophe has been a proactive and reactive measure that since the early '900 was applied or suggested in some cases. One example is title IV of The Royal Decree 445 of 9 of July of 1908 for Basilicata and Calabria “Consolidation of landslides and delocalisation of settlements in new areas concerning the displacements of human settlements at hydrogeological risk.”

This law individuated for several Municipalities new areas to be used in substitution of the previous areas occupied by the ancient settlements (Art. 62-77): this delocalisation was organised giving to each family 100 square meters of soil in a new area and the expropriation value was given after an expert commission estimation. Later, Article 20 of the Law n. 311 of 13 of April 1911 modified by Law 179/1915 states “*The King Government, with the agreement of the State Council and the Public Work Major Council, has the faculty to substitute partially or totally structural infrastructures, with human settlement delocalisation, or by contrary, to substitute displacement with structural infrastructures.*”<sup>29</sup>”

In this sense, one can mention the delocalisation of several municipalities. After the Italian Kingdom period (until 1946), the displacements and resettlements have been abandoned as common practice. Nowadays, even if in some Regional Law the displacement is mentioned as a positive action to face environmental risk, as in the case of Emilia Romagna (Art. 29 Regional Council n. 1338/93) and Campania (art. 11 bis of the Law n. 19/09) Regions, only 56 Municipalities in fact started displacement actions to face environmental degradation of houses or factories.

Today, the community mobility is controlled by the Mixed Operational Centres (COM) and the Rescue Coordination Centre (CCS), which coordinate the local operation in emergency assistance, the medical, social and economic support, and the strategy of census, and then, delocalisation of the population. It is composed by the responsible of the organisation working on the concerned territory.

To face the emergency, the municipalities have to provide a catalogue of the possible areas/places (hotels, schools, stadiums, churches, parking or camping lots), already individuated in pre-emergency territorial mapping, where to localise the communities and

---

<sup>29</sup> “*Il Governo Reale, con il sostegno del Consiglio di Stato e il Consiglio Superiore dei Lavori Pubblici, ha facoltà di sostituire parzialmente o integralmente le infrastrutture, tra cui gli abitati o di sostituire la delocalizzazione con nuove infrastrutture*”.

the possible donors for foods and other primary goods and services (drugs, shelters, blankets or clothing). According to those directives, the usual users of the emergency areas have to receive the displaced families, individuals and communities; failure to offer assistance could be a penal crime.

These emergency interventions concern the realisation of temporary shelters, medical centres, and first-assistance services. It is fundamental that, as underlined in the National Council Directive n. 104/99, the individuated area can be multi-purpose when considering the emergency logistics assessment, planning and management<sup>30</sup>.

So the evacuated civil population will be collocated in areas already individuated before the calamity, and it should be located in easily and accessible areas, such as tent cities in football stadiums. All the identified location has to be in keeping with the Sanitary Local Authority<sup>31</sup> (ASL) directives, in order to prevent diseases and give a minimum standard of safety, security, and comfort.

Nevertheless, often the population interested by a calamity event has to stop in to the Reception areas for longer periods, waiting for other possible solutions:

1. Possible “Return in allocations<sup>32</sup>”, after the analysis of Fire Department <sup>33</sup>;
2. Renting and/or allocation of other houses. This option considers also the possibility that displaced people could be finding an autonomous solution, “autonomous settlement”<sup>34</sup>: I decided not to use the terminology “self-resettlement,” translating the Italian terminology of “autonomo,” that insists of the complete refusal of the institutional proposed responses.

For the emergency settlement, it is necessary to consider the principle of multi-proposal to conjugate the community needs, the emergency coordination with the post-traumatic and future risks management according with the directives of the Technical

---

<sup>30</sup> Different kinds of Emergency assistance shelters are possible. First, one can find “*aree di ammassamento*,” PC and COM headquarters that receive and stock materials and volunteers; than the “*area di attesa*,” meeting points, to conduct a census over the population. The last type is the “*aree di accoglienza*,” reception areas, to support the living-condition needs.

Considering the reception areas, the PC guidelines consider different kind of shelters, according to the duration of the community mobility (emergency evacuation, temporary displacement, medium and long-term resettlement): the use of tent cities, school and churches for the people in queue of shelter, for example, is not the best solution, but it represents a quick response to the emergency evacuation.

<sup>31</sup> “Azienda Sanitaria Locale”.

<sup>32</sup> “*Rientro nelle proprie abitazioni*” programme.

<sup>33</sup> “*Vigili del Fuoco*”.

<sup>34</sup> “*Autonoma sistemazione*”: as experimented during the earthquakes in Umbria and in Marche Regions in 1997.

Group of PC and the National Group for the Defence from Hydrogeological Catastrophes<sup>35</sup>.

When the individuated area is a public place (the Municipality is the owner), the Municipal Council makes a deliberation to the PC; whereas, when the area is private, the Prefect has to make a requisition ordinance, until the requirement ceases, to the Municipality administration, according to Art. 7 of the Law of 20<sup>th</sup> of March 1865, n. 2248, all. E, and according to the Decree of the Prime Minister through which the state of emergency has been declared.

The ordinances are adopted with extreme timeliness according to Art. 71 of Law of June 1865, n. 2359 and have to consider the fact that the emergency shelter will be shaped on the dimension of the affected area and should be located not too far (2 km) from the mentioned area, considering secondary structures apart from houses that could concur to the infrastructural standards, a social, psychological and medical assistance.

The long-term resettlements should be, instead, designed considering economic and social activities of the displaced communities and a territorial planning in view of a future urbanisation (such as in the case of L'Aquila after the earthquake of 2009).

The civil protection guidelines concerning mobility of the affected communities (even if they consider very important the participation of expert during the preventive, the emergency and the post-traumatic phase), do not seem to be very sensitive to the “Environmental Guidelines” of UNHCR or Agenda 21 UN proposal for sustainable development of 1992 that claim the support for a life-sustaining reintegration of displaced persons, and the basic criteria for sustainable use and management of natural resources.

### ***The actors of the risk management***

In Italy, different authorities are designed to manage the catastrophes: their activities and their objectives are analysed in order to provide an analysis as deep as possible on

---

<sup>35</sup> Different displacement solutions are foreseen by PC: temporary displacement can be organized in emergency camp, even if prefabricate buildings and hotels are preferred as emergency settlements, because of their comfort. Therefore, it is necessary to establish a continuum between territorial planning and emergency planning to conjugate the population needs also during or in the aftermaths of a catastrophe (such as in the case of Cerzeto in 2005).

the different form of prevention, emergency recovery and resettlement actions. This frame will be particularly important in the analysis of the two cases proposed in the empirical part of the dissertation.

*a. The local, regional and national authorities*

When a catastrophe occurs, a juridical act is needed to declare the state of emergency, signed by the Ministerial Council, under the proposal of the President of the Ministerial Council, as described in Art. 5, c.1, of Law n. 225/92: this declaration allows the operational institution and the territorial institutions to operate *extra-ordinem* (the utilisation of human and material resources) to manage the environmental and the civil emergency.

The Municipality institution has a crucial role during the catastrophe: the Mayor, according to Laws n. 225/92 and n. 265/99 has the power to coordinate the emergency, the assistance services and the voluntary activities; moreover the Municipality has to manage the prevision and risk prevention programmes, according to Decree n. 112/98 and Regional Laws 44/00 and 7/03.

According to Law n. 225/92, the Department has a precise duty to manage the coordination during the preventive phase and to implement the Department Prevision Programme and Risk Prevention Programme, such as the activities of the PC Regional Committee, in order to collect data of the institution working on its territory (Regional Laws n. 5/01 and 07/03). Moreover, the Prefecture, during the emergencies, assumes the role of the Government, according to Decree 300/99.

The Regions have a role of regional control of civil protection in order to optimise the intervention of the other institutions. With Law n. 225/92, the Regions have to programme and to participate in the civil protection activities: they have to design and implement the Regional Provisional Programme of Risk Prevention and to participate in the PC activities. Besides, the Decree 112/98 has incremented the Regional power concerning preventive activities (monitoring and mapping of regional risks) with the ARPA.

Accordingly, Regional Law 19/2000 has described Regional intervention and activities in international territories, in case of calamities, warfare, epidemics and diseases in the framework of international cooperation and solidarity and as of Regional

Law 1/2001, the Regional PC has to participate in the activities for the assistance in other Regions. Different sort of activities concern the Regions, such as the organisation and the assistance of the displaced and the political refugees<sup>36</sup>; the Region is also responsible for financial contributions to associations that operate in the organisation and the assistance of the displaced, the refugees and the victims and for contributions in material resources to face the emergency.

#### *b. The National Civil Protection*

The Italian National Civil Protection Department (*Protezione Civile*, from now on PC) was instituted in 1992, with Law n. 225/92, in order to preserve the integrity of life, goods, settlements and the environment from the damages and the danger provoked by natural disasters, catastrophes, and other calamity events. Two different competences are given to this service: prevention and emergency planning.

Until 1992, the only legal Italian instrument to face emergencies was Law n. 996/70, which organises the stock of resources for future emergencies, in which the Prefect was given all the competences in organisation and coordination of the rescue. Later, the 1976 Friuli and the 1980 Irpinia earthquakes underlined how a new organisation in civil protection was needed. The Constitution divides land management responsibilities between the State and the Regions. Art. 9 of the Constitution states that the Italian Republic protects the landscape, the artistic, and the historical heritage of the nation.

According to Art. 44, the law imposes obligations and restraints on public and private property to reach a rational land utilisation system. Related to the new Art. 117, created in 2001, “Great Transport and Navigation networks” and the “Enhancements of Environmental and Artistic Heritage” are concurrent legislation subject matters between the State and the Regions. The State exercises concurrent legislation authority according to the restraints deriving from EU regulations and directives in “Environmental Ecosystems and Artistic Heritage Protection” the “Government of the Territory” and “Civil Protection.”

The PC is divided in different Regional Civil Protection Departments and, together with the Regional Agency for the Environmental Protection (ARPA), Regions, Provinces, Cities, and autonomous institutions; it coordinates environmental monitoring,

---

<sup>36</sup> The PC works with “traditional” political refugees (according to the Geneva Convention).



hydraulic-forestry organisation, land reclamation and hydraulic maintenance, and the assistance when a disaster has already happened.

The PC is composed of nine offices and forty-two services: the Head of Department is helped by a Juridical Adviser, two Head-Substitutes (one for the technical area, and one for the administrative area), a Press Service, the Secretary, The Communication Service, and the Operative Centre<sup>37</sup>, which are very relevant in the local recovery plans. In recent years, the engagement of the Civil Protection rapidly has grown because of the occurrence of other disastrous events (figuring in **Map 2** page 56), such as the Val Pola rock avalanche (1986), the Piedmont flood (1994), the Sarno debris flows (1998), the Versilia flood and landslides (1998), the Stromboli eruption and tsunami (2002), as well as seasonal summer forest fires etc.

The economic resources of PC are provided by the Economic Ministry in a particular fund named Civil Protection according to Art. 2 of Decree, n. 428/82, converted in the Law. n. 547/82; moreover the Ministry for the coordination of the PC can enhance this fund for special events. For the year 2012 the PC had 1,670,392,269 € to manage catastrophes and “big events.” Those resources come from the Balance Law of 12 November 2011, n. 183 and n. 184. Until 2008 the PC had also a Regional Fund (138,000,000 €) destined to the Regions to manage regional catastrophes, to enhance the PC regional infrastructures, to organise voluntary training, to implement the concerned communities assistance (tents-caravans), and to promote the operations of the mobile centre.

The PC’s action refers to the “Augustus Method”<sup>38</sup>, a standardised emergency management system, through which it is underlined as a fundamental importance for civil protection to be a well-organised “emergency intervention machine”, to reduce the consequences of catastrophes and to manage the intervention plans. The importance of the “Augustus Method” is that it formulates guidelines to be respected to implement the preparedness and the early warning systems.

The “emergency plans” consist in the continuous updating of emergency procedures according to the different institutions data (SIT and radar networks) and a regular communication between all levels of the institutional and NGO system, at a national and local level. The structure of an emergency plan identifies the territorial environmental

---

<sup>37</sup> The last modification to the PC organization is the Decree of 31<sup>st</sup> July 2008 and the PC General Secretary Decree of 12 December 2008.

<sup>38</sup> So called because the emperor Augustus Caesar said, “The more complex a problem is, the simpler should be its solution.”



structure, the territorial association and institutional structure and designs the intervention operational model. A part from the protection of communities, other important PC objective are the management of the productive and economic system in the affected area, the reorganisation of road condition, of transportation services and of communication networks but also the preservation of historical and cultural sites.

According to those guidelines (Galanti, 2008), the measures to protect the population and the concerned communities are finalised to the communication and the evacuation of the population from the risk area, and the delocalisation in emergency areas (*“aree di accoglienza”*) both as preventive and post-traumatic measures. The main attention during those operations has to be given to the most vulnerable or not autonomous people (elderly, disabled, children). The analysis of the institutions involved in an emergency is necessary to better understand what happened to the communities of Sarno and Cerzeto, the analysed case studies. This reveals the inadequacy of the Italian legislative *corpus* considering risk management, because also during these two events, the lack of juridical framework increased the negative consequences on the human mobility.

### *c. The volunteers*

The volunteers are, as well, a significant pillar in the civil protection (art. 18 of the Law. 225/92) in preventive activities and in post-traumatic services; voluntary associations are registered in a Regional register (Regional Law n. 38/94); other operational task forces are the Police, the Fireman, the Army, the Carabinieri, the Traffic Corps, the Finance Police, the Municipal Police, the Alpines and the Forest Corps. Moreover, the Local Medical District and the Italian Red Cross give medical and care population assistance during emergencies.

### ***Hydrogeological hazard: an historical perspective***

In Italy, the definition of hydrogeological risk and vulnerability is based on the Decree of 29/09/1998, “Emergency measures to prevent the hydrological risk for the areas hit by landslides in Campania region”<sup>39</sup> converted into Law n. 267/1998.

---

<sup>39</sup> “*Misure urgenti per la prevenzione del rischio idrogeologico ed a favore delle zone colpite da*

I define the juridical framework in Italy, considering flood events<sup>40</sup> in order to provide an analysis on the measures that are taken before, during and after a calamity event. Then, I provide an overview on Italian urbanisation and rural emigration as a vulnerability factor and, lately, I cross conceptually the level of risk and vulnerability, with the elements referred to the cost of flood damages in Italy, in terms of lives and economic data.

The roots of the inadequacy of the juridical *corpus* to face the recurrent catastrophes that hit the Italian peninsula can be retraced in a historical perspective, considering at the same time also the communication of the risk, its perception and the specific cultural Italian attitude.

The “hydrogeological instability” -as defined by Art. 54, of Decree n. 152/06- is “*the condition which characterises areas where the anthropic or natural phenomena, related to the dynamic of the water bodies, the soils or the slopes, determine territorial risk*”<sup>41</sup>. The national legislation about hydrogeological instability, before the Polesine flood in 1951<sup>42</sup>, was limited to the Royal Decree of 1904, Act on hydraulic works, the Law Serpieri of 1923 about the “Clarification and Reform on the legislation on woods and mountain terrain”<sup>43</sup>, and the 1933 “Legislation on land reclamation”<sup>44</sup> Act, which defined the first hydrogeological and hydraulic constraints considering the environment and its instability.

After the Polesine disaster, in 1952 the Ministry of the Public Work, Agriculture and Forests established a plan to preserve the watercourses on the national territory according to Law n. 184/52, followed by the realisation of the river Po’s Magistrate to realise hydraulic structures to contain inundation and landslides, in ordinary and emergency periods.

---

*disastri franosi nella regione Campania”.*

<sup>40</sup> I have decided to consider the landslides rather than other environmental hazards, because I strongly believe that for this kind of disaster it is possible to individuate anthropic causes. This is important considering the penal responsibility in the catastrophe but it also shows how environmental mobility and environmental vulnerability are phenomena socially constructed.

<sup>41</sup> “*v) dissesto idrogeologico: la condizione che caratterizza aree ove processi naturali o antropici, relativi alla dinamica dei corpi idrici, del suolo o dei versanti, determinano condizioni di rischio sul territorio*”.

<sup>42</sup> It is an area in the Northern-east of Italy (100-km long and 18-km wide): two thirds of Polesine was flooded in 1951, compelling 150,000 people to evacuate the entire area (VV.AA., 1994).

<sup>43</sup> “*Chiarifica e Riforma sulla legislazione sui boschi e terreni montagnosi.*”

<sup>44</sup> “*Legislazione in materia di bonifica.*”

Later, in 1967, after Florence's flood<sup>45</sup>, with Law n. 362/67 the "Commissione de Marchi" was constituted, followed by the "Commissione Giannini" in 1977<sup>46</sup>, to elaborate a plan to define the competent institutions for each catchment area extending those competences to the Magistrates, to the Public Work Agency – the institution that manage public works – and to the Regions. Only in 1985, those competences will be transferred to the Ministry of Environment and then to the National Civil Protection in 1992.

In July 1976, the reactor explosion of the Italian chemical factory ICMESA of Meda, near Milan, provoked a dioxin toxic nub with short and long-term consequences on human health. Considering the importance of the event, it was not up to the Italian, but the European legislator to regulate the future similar hazardous events. Therefore, in Italy, the "Seveso Directive"<sup>47</sup> (82/501/CEE48), modified by Dir. 96/82/CE and the Dir. 105/2003/CE, involves the possibility to define guidelines for the planning, the management and the control of the anthropic-induced risk areas.

### ***The hydrogeological risk management***

The Italian legislation continued to take punctual interventions instead of generally regulate the risk. On the one hand, this legislation provides the identification of the risk areas, the emergency planning, the identification of the involved institutions, and the conception of an emergency plan (internal and external). It is based on the principals of communication and coordination between the local and national actors, policy-makers, and stakeholders to promote risk mapping, territorial organisation, and community emergency awareness.

On the other hand, the management of the water bodies, according to their morphology and their characteristics is based on Law n. 183/1989<sup>49</sup>, as modified and

---

<sup>45</sup> In 1966, the Arno river flooded and this disaster hit economically, socially and culturally Florence: it killed many people and destroyed millions of artistic masterpieces.

<sup>46</sup> Those commissions are parliamentary groups that focus their studies on a particular fieldwork.

<sup>47</sup> Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances, to improve the safety of sites in which there are dangerous substances.

<sup>48</sup> Adopted by the Decree 175/1988.

<sup>49</sup> "The Law 183/1989 on soil and water conservation was issued at the end of the 1980s. It represented the end of a long process which started after the flooding of Florence, involved the

integrated, on the “functional and organisational soil defence reorganisation”, to promote the planning and the management (Art. 1, c. 3) of the hydrographical basin through coordination between the Regions and the National and Local Civil Protection.

In Art. 11 of the same text of Law, the other actors that could be involved in the management of prevention and emergency plans are described, where in Art. 17 of the mentioned Law, the Autorità di Bacino (Catchment Areas Authorities, from now on AdB) are invested of the power of environmental territorial defence. The legislative evolution as presented, shows how the prevention and risk management policies lack, and how complicate it is to create a unique legislation to prevent environmental depletion and to manage catastrophic events.

Later, with Law n. 493/95, it has been possible to manage the territory through the “Sub-plan for hydrogeological asset” (PAI), such as a precise map of the territory of each AdB and corresponds to the cognitive, normative, and technical instrument to plan and programme the action and the legislation that involve the basins. Those PAI presume a complex knowledge in term of environment, social and economic impact of each possible intervention, according to a presumed priority scale. According to the legislator they have to contain *“the indication of the areas considered as special bounds and prescriptions according to the hydrogeological conditions, the soil conservation, the environmental preservation and the prevention of anthropic activities”*<sup>50</sup> (Art. 17 of Law n. 183/89).

To the definition of the PAI, concur the Territorial Information System, (SIT); they have fifteen-year validity, but every five years are checked in order to control the legislative, management, economic, and cultural objectives.

After the Sarno landslide, in 1998, was written Law n. 180/98 (converted in Law 267/98), called “Urgent measures for the prevention of Hydrogeological risk in favour of

---

technical-scientific work of the De Marchi Commission for flood defence and soil conservation problems and was inspired by the final report of the Conferenza Nazionale delle Acque for the problems of water resource use, pollution control and institutional reform” (Rossi and Ancarani; 2002, 22).

<sup>50</sup> *“Il piano di bacino ha valore di piano territoriale di settore ed è lo strumento conoscitivo, normativo e tecnico-operativo mediante il quale sono pianificate e programmate le azioni e le norme d'uso finalizzate alla conservazione, alla difesa e alla valorizzazione del suolo e la corretta utilizzazione della acque, sulla base delle caratteristiche fisiche ed ambientali del territorio interessato.”*

areas affected by landslides disasters in the Campania Region<sup>51</sup>” to accelerate the procedures described by Law n. 183/1989 on the water regime regulation and to respond more efficiently to hydrological emergencies. Lately, Law 77/09 created the 1<sup>st</sup> National Commission on the Hydric Resources, a National Commission to guarantee the efficiency of the hydric service infrastructures and the defence of the national hydric resources [...] and to coordinate the monitoring, the verification, and the implementation of the hydric services infrastructures<sup>32</sup>.

### ***An ad hoc normative framework?***

In all the mentioned laws, no attention is given the concerned displaced population and each time they are called in different ways, used as synonyms: homeless, evacuated, or victims. The various appellations of the concerned communities are another element that underlines the lack of a unique political perspective in the management of catastrophes and of their consequences on populations.

A synthetic table (**Table 3**, page 84) can be useful in order to describe the difficulties of the Italian legal system and to understand how the legal frame, which evolves according to the different calamities the country faces, actually only, consists in an *ad hoc* answer not so useful for the future preventive and mitigate actions.

Therefore, different events have led to different elements of legislation. Moreover, a consistent number of public and private actors are concerned in the management of catastrophes and it is often difficult to coordinate their action also because the single (often

---

<sup>51</sup> “Misure urgenti per la prevenzione dal Rischio Idrogeologico a favore delle aree colpite da disastro nella Regione Campania”.

<sup>32</sup> “Per garantire l'efficienza degli impianti per la gestione dei servizi idrici e la salvaguardia delle risorse idriche nel territorio nazionale, ai fini della prevenzione e del controllo degli effetti di eventi sismici, entro quarantacinque giorni dalla data di entrata in vigore della legge di conversione del presente decreto, il Ministro dell'ambiente e della tutela del territorio e del mare avvia il Programma nazionale per il coordinamento delle iniziative di monitoraggio, verifica e consolidamento degli impianti per la gestione dei servizi idrici. La denominazione ‘Commissione nazionale per la vigilanza sulle risorse idriche’ sostituisce, ad ogni effetto, la denominazione ‘Comitato per la vigilanza sull'uso delle risorse idriche’, ovunque presente.”. This Law, in coordination with the Decree 49/10, in actualization of the 2007/60/CE Directive, manages the flood risk evaluation and management activities, giving to the AdB the control of the preliminary evaluation of the potential risks, through the analysis of historical data, the expeditionary analysis and on the long-term studies (climate change scenario projection).

economic) interests cross<sup>52</sup>. The articulate juridical frame that does not fit into the complexity of the environmental risks, seems to be a sort of fishery net, through which only the smartest can escape: environment and catastrophes, in fact, for someone can be a business, a way to profit.

It is emblematic to conclude with an event of the Italian history that can be an example of how economic interests often impose on the legal frame and how it is difficult to manage disasters and which are the perils of a lack of an adequate preventive legislation. One year after the L'Aquila earthquake (2009), where more than 300 people were killed, the Italian newspaper "La Repubblica" reported a telephone conversation between two businesspersons, Francesco Maria De Vito Piscicelli, and Pierfrancesco Gagliardi: this anecdote should to be contextualised in the political scandal surrounding this catastrophe. They were talking about the profit opportunities thanks to the rebuilding after the earthquake. Francesco Maria De Vito Piscicelli said he was laughing in his bed when he heard the news about the earthquake: *"Stay on this earthquake thing, so we have to start at full throttle: there is not an earthquake every day."* *"I know (laughing), God forbid, poor people."* *"That is right."* *"This morning I was laughing in bed at 3.30 am."*

In conclusion, it is possible to infer that in the Italian case, the normative approach concerning catastrophes and its related mobility is only based on the response to the emergencies and nothing is done to prevent the environmental degradation and its implications on human communities. This attitude, in fact, tries to confine the problems to the post-catastrophe recovery and denies any other implications relative to the general risk. The causes of this approach can be retraced by considering the Italian attitude towards natural catastrophes.

---

<sup>52</sup> *"Balducci e i suoi amici, la cricca degli appalti. Ville, escort, assunzioni e auto di lusso"*, "La Repubblica" 11/02/2012 available at: [http://www.repubblica.it/cronaca/2010/02/11/news/il\\_grande\\_regno\\_dell\\_emergenza\\_il\\_persona\\_ggio-2254417](http://www.repubblica.it/cronaca/2010/02/11/news/il_grande_regno_dell_emergenza_il_persona_ggio-2254417), last access January 2014.

**Table 3: A synthetic description of the Italian legal frame shaped on catastrophes**

Law number	Relation to an event	Objective
184/52	Polesine flood in 1951	Preservation of watercourses
362/67	Florence flood in 1966	Establishment of Catchment areas
82/501/CEE (Decree 175/88)	Seveso chemical accident in 1967	Prevention and management of anthropic induced disasters
225/92	1967 Friuli and 1980 Irpinia earthquakes	Institution of National Civil Protection Dept.
267/98	Campania landslides in 1998 (Sarno)	Water regime regulation and definition of hydrogeological risk

*Source: Personal elaboration.*

\*\*\*

The massive presence of social catastrophes in Italy can be related to a high level of environmental vulnerability, a high level of exposure to risk but also to a lack of legal framework about environmental conservation and preservation, mostly in the Southern part of the Country.

The environmental vulnerability, ascertained from a scientific point of view crosses with a huge territorial mismanagement that does not find any limits in the weak juridical frame. Moreover, the differences between the North and the South<sup>53</sup>, depending on environmental, historical, cultural, economic and social differences, shape the general approach to risk management, to the emergencies and the rescues and to the post-calamity asset. These give to the country an unclear and a varying frame depending on the concerned historical period, the legislature, but also depending on the geographical area.

---

<sup>53</sup> Obviously, as the Italian philosopher, anthropologist and historian De Martino (1982: 2) notices, the idea of Southern Italy “*is not merely a geographical designation, but social and political*”.



The juridical frame, full of deeds, laws and decrees looks like a nebulous *corpus* in which it is very easy to get lost. It seems that this *corpus* has been built gradually according to the different emergency that the country had to face.

From the analysis of the legal framework it can be inferred that the Italian approach to the natural hazard seems to be defeatist and not particularly solid in the consideration of future events. From this first intuition, it is now interesting to analyse which are the cultural elements that characterise the Italian approach to disasters.

From the answer of this question it will be further possible to analyse if the catastrophes are differently approached in the Global North than in to the South, which is the main question of the thesis.

## II.2 How nature shapes culture and language

### **Introduction**

*“And you, ugly and dark cloud: why did you come? [...] Get away from here where the cock doesn’t sing”<sup>54</sup>* (De Martino, 1982: 55).

*“Floods, landslides, hydrogeological instability: the numbers that Italy has to change”<sup>55</sup>* (L’Espresso, 2014).

*“The Superior Council of Judiciary has declared the state of emergency. Letta talks about a national tragedy”<sup>56</sup>* (Parlamentonews, 2013).

What do these three sentences have in common? What do they refer to?

I have reported an excerpt from a local traditional song against the damages of a flood, the title of a newspaper article concerning the damages provoked by a flood in Italy and the commentary of the action of the national authorities in the aftermath of a flood, in order to show how complex the observation of a same phenomenon from different point of view can be. I decided to analyse the grey literature because I strongly believe that media, NGOs and local association discourses can reveal the general perception of a given society: its feelings, its fears and its responses to natural disasters. Academic articles, concerning the general Italian cultural approach to the risk, the catastrophes and its evolution, support this analysis.

Moreover, the analysis of these different perceptions shows how previous disasters have shaped the collective imaginary and the actions to be done to face the future ones. This imaginary has soaked the affected populations and also the description given by the media and the political actions put in place by the authorities. In fact, even if a

---

<sup>54</sup> *“E tu nuvola brutta oscura ce sei venuta a fare? [...] Vattene da quele parti oscure dove non canta gallo...”* This is a monotonous tune singed by Southern Italy peasants, in order to avoid the arrival of the flood.

<sup>55</sup> *“Frane, alluvioni, dissesto idrogeologico. I numeri che l’Italia deve cambiare”*, available at: <http://espresso.repubblica.it/attualita/2013/11/19/news/frane-alluvioni-dissesto-idrogeologico-i-numeri-che-l-italia-deve-cambiare-1.141761>, last access January 2014.

<sup>56</sup> The Italian first minister talks about the flood that invested Sardinia in 2013, provoking 2,700 homeless.

*“Il ciclone fa strage,”* available at: <http://parlamentonews.com/2013/11/20/alluvione-in-sardegna-17-morti-letta-e-tragedia-nazionale-priorita-dispersi-e-sfollati-cdm-decide-stato-demergenza/>, last access January 2014.

wider diffusion of the availability of the information has provoked a perspective change in the consideration of men action on territory and the environment, cultural previous structures limit the risk and the preventive actions. Even if people are less prone to consider as inevitable the serious social and economic consequences of climatic events, the notion of hazard, risk and vulnerability are not still interiorised by the Italian communities exposed to risk (Lombardi, 2005). The elements that link the population perceptions, the media and the authorities' catastrophes behaviours, are deeply anchored to the "mentality" and to the "historical culture" of a given society (Noto, 2009), in this case, the Italian one.

Therefore, in this chapter I generally try to investigate how Italian communities, media and authorities face the catastrophes, considering their attitude, their coverage, behaviour, language and treatment. I singled out different elements of analysis: How has the incidence of catastrophes shaped the Italian common vision? How media and authorities generally depict the catastrophes? What measures are taken to prevent environmental degradation and catastrophes? Whom does the population consider "responsible" from the natural disaster? Can we find a common "environmental culture"?

This analysis takes into account the collective imaginary, the language of the media considering the emergencies and the national and local authority's attitudes toward the affected population. In order to complete the description of the "Italian culture of the disasters," different sources have been used: anthropological and ethnographical analyses, historical and philosophic studies crossed with political and economic ones, considering also recent studies coming from the communication sociology field. Furthermore, newspaper and report have been useful in order to reconceptualise the media point of view and the authority treatment of the catastrophes.

I take as examples L'Aquila (2009), the Emilia-Romagna seism (2012), the most recent earthquakes in the Italian history, and the waste crisis in Naples (2008-2009), which had an international echo. With these examples, I figure out the relationship between language, culture, power, representation, political management, expectation and narrative surrounding the catastrophes and their consequences on the short, medium and long-term.

The results of this analysis are very useful in order to have a complete overview of the general Italian attitude *vis-à-vis* the catastrophes, useful to better frame in a cultural,

social and political frame, the two examples of the thesis, through the lens of the environmentally induced displacement framework.

First, I present the elements that characterise the Italian approach to the natural hazard and the catastrophic event, considering the fatalism considering the future events, and the blaming process in the aftermath of the catastrophes. Moreover, I present the environmental misculture that characterises this country and the roots of this specific approach to the environmental issue.

Secondly, I focus on the language of the media about the emergency considering the importance of the media in the Italian panorama and showing empirical example of the media representation (the waste crisis in Naples, the Emilia Romagna and the L'Aquila earthquakes).

Thirdly, I focus on the institutional approach to the catastrophes in the emergency phase, their discourses and the narrative the surround their presence in the place hit by the catastrophes.

## **II.2.a A collective imaginary anchored in fatalism**

Every 5<sup>th</sup> February in Catania, a Sicilian city, the memorial of St. Agatha is celebrated with a pyrotechnic show that symbolizes the lava. In fact, in 253 A.D., the stilling of an eruption of the Etna volcano was attributed to her intercession; that's why, people continued to pray St. Agatha for protection against the eruptions (Consoli, 1973).

Similarly, on September 19<sup>th</sup>, every year, the city of Naples, through a huge procession, commemorates the martyrdom of St. Januaries: the coagulated blood of the Saint, kept in a reliquary, after intense prayers, typically liquefies: it has been venerated since 14<sup>th</sup> century. Then, the archbishop holds up the vial and tilts it again to demonstrate that liquefaction has taken place: if the liquefaction does not take place, an eruption of Mount Vesuvius or other catastrophic event is, indeed, announced (Battista Alfano and Amitrano, 1950).

Moreover, St. Roch, commemorated on 16<sup>th</sup> August, is invoked in the Northern East part of Italy against natural disasters and catastrophes: nowadays he is still venerated by the farmers that are used to ask for the protection of the harvest from calamities (Bru, 2006). These three examples show how the cult of the saints in Italy is often strictly connected with the removal of a catastrophe: faith beliefs and scientific opinions mix

shaping a society in which the general culture regarding the perception of the catastrophes and of the risks that is deeply anchored to the fatalism. It is not by chance that during the L'Aquila earthquake, many depositions concern the salvific role of the prayer, as is it possible to see in the following **Figure 1**. In this article, a student in Pescara – a small town near to L'Aquila – recounts how he was saved thanks to his invocations.

**Figure 1: “I prayed God and I got saved”**



Source: “Il Centro”, 07/04/2009.

### *The fatalism*

The Italian cultural fatalism can be connected with different religious and customary traditions: it is not by chance that the word “culture” comes from Latin and means “cultivate,” and then the meaning has been enlarged and associated to the “cult” of the divinities. The Latin tradition of fate (that, in turn, comes from the Hellenistic culture) has been subsisted by the concept of Divine Providence by the Christian interpretation. Men cannot do anything to change their present and future conditions: they can only pray to God, or, in the Catholic version, they can only ask to the saints to obtain an intercession (Ruiu, 2012).

In this sense, the disasters are the evidence of the punishment for human negative actions and for this reason only miracles can stop natural hazards. Moreover, in the Catholic tradition, catastrophes are associated to the Apocalypse, but the term “apocalypse,” in the Gospel, means “revelation”. This definition implies a positive consequence of the Apocalypse, the destruction of the Earth: the end of the World will

lead back the humankind to God (Asor Rosa, 2012). Even if nowadays the causal relation between human sins and catastrophes can be considered as out-dated because education and cultural development have weakened the link between transmitted culture and beliefs (D'Orlando et al., 2001), in the Italian culture fatalism still remains deep.

Accordingly, the philosopher Croce (1942) argued that the traditions linked to the Christianity have characterised the Italian culture so much that even atheists in Italy could be considered as Christians. Therefore, the syncretic association of catholic and pagan traditions makes the Italian culture often incline to consider the events as “acted by someone else” (De Martino, 1982). There are no endogenous responsibilities or preventive actions, if something could happen, it will happen. In this sense, the fatalism can be considered as a loss of control referring to a person's belief about what causes the good or bad results in his or her life, either in general or in a specific area (Rotter, 1966).

### *A blaming attitude*

It seems that Italy is subjected to a dual destiny, divided between her devils and her guardians: on the one hand natural disasters and catastrophes, and, on the other, the protector patron saints and the miracles. Correspondingly with this analysis, namely with the fact the responsibility of a disaster is someone else's fault, it is possible to consider the Italian juridical attitudes in the aftermath of the L'Aquila earthquake. In autumn 2012, six Italian scientists and one governmental official were found guilty of manslaughter “*for underestimating the risk of a deadly 2009 earthquake, and responsible for the resulting toll of more than 300 dead and over 1,000 injured*”<sup>57</sup> (The Guardian, 2012)<sup>58</sup>.

Speaking about L'Aquila, the idea to hold scientists responsible for public policy actions derives from the attitude that always tries to find a whipping boy for each event: so, the scientists which have few possibilities to predict earthquakes are considered guilty of the economic and physical damages to people, their resettlement and to the material goods: a sort of Galileo's inquisition, against science. Already Beck, in the early '80s, already commented the attitude of the contemporary society

---

<sup>57</sup> “L'Aquila quake scientists: creating scapegoats will cost even more lives”, available at <http://www.theguardian.com/science/2012/oct/23/laquila-quake-scientists-scapegoats>, last access January 2014.

<sup>58</sup> Sentence Number 380/2012.

to consider the risks strictly linked to the role of the science, and his theory seems to be more and more effective at the beginning of the 21<sup>st</sup> century. For the sociologists, science is considered as the main cause of risk, becomes the manner through which the risks are announced, but also the solution to the problems (Beck, 1986).

After 1700 Enlightenment – argues the sociologist Beck – the contemporary World ties to relegate the science in a marginal position: it has been dethroned, because the “monopoly” on truth is challenged thanks to the mass media and the information everyone can have regarding a same event. In this sense, science becomes more and more necessary, but less and less sufficient to formulate the truth because the social and natural sciences, based on rationality, are not able to adequately react to the contemporary risks. For this reason, there is a sort a casual deny of the risk (Beck, 1986), and it is very easy to consider the scientists responsible rather than the private and public action for risks of different kinds.

If Oltedal et al. (2004) evidence how cumulative risks have significant implication from the social and theoretical point of view, because they bring to a new complexity (Habermas, 1978), and it is evident how the risk is a cognitive category that can modify in time and in space as a collective attribute. Considering the case of Italy, in fact, it seems that there is little concern about the risks and little sense of private responsibility (Legambiente, 2010).

### ***A “catastrophic” misculture?***

As anthropologists and philosophers have shown, in fact, the catastrophes imply the interruption of the daily structure of a given society (Beck, 1995). Apart from the technical point of view, the catastrophe is a cultural phenomenon (Douglas, 1996). Ewald arrives to say that “*nothing is a risk in itself: there is no risk in reality*” (1999: 199).

The notion of culture is extremely difficult to define because of it is a multi-faceted object, that links the beliefs, the opinions, the social rules and characteristic attitudes (Alexander, 2012).

Specifically, the researcher Hofstede defines “culture” as “*the collective programming of the mind which distinguishes the members of one group or category of people from another*” (1991: 5). Relating to the catastrophes, the cultural elements, in fact, determine the anthropic and physical consequences of the event, considering



both the disruption of the material goods, but also the disintegration of social cohesion (Ragone, 2012).

Talking about collective imaginary means to consider at the same time the common language and the scientific language of a given society, integrating the memory, the imagination and the reconfiguration of the experiences, the ideas, the myths, the rituals<sup>59</sup>, and the symbols<sup>60</sup>. A culture of risk, for Italy, should mean the integration in the common imaginary of the dangers and of the possibility that a hazard could be produced with negative consequences on the community, even environmentally induced displacements. Moreover, it implies the common understanding that a single action can be responsible for a collective damage. In the same sense, a research made by some sociologists in Italy<sup>61</sup>, concerning the risk perception and the territory, shows how the perception about the risk of catastrophes in a given place is given by a cultural factor and how that is independent from previous experiences.

Therefore, it is strictly connected with the level of information made by experts or authorities about the risks (Beretta, 2005). This is why, according to Beck (1986), the horizon is not any longer ignorance but knowledge itself, the possibility to control natural environment. According to the mentioned research<sup>62</sup> (Beretta, 2005), people claim a more practical demonstration in order to understand how to cope with catastrophes (52.2%), more informative campaigns (45.2%) and more exercitations (33.7%). The results of this research shows how 65% and 34% consider as “necessary” or “extremely important” to be informed about hydrogeological risks. In fact, only the communication of the risk can be useful to determine a consistent awareness of the risks and their preventions.

The US scientists Kelmetti, commenting the facts of L’Aquila, said, *“The real problem is helping people understand how risk works, you can’t expect that scientists can come in and tell people an earthquake will happen here on October 28<sup>th</sup>, 2013.*

---

<sup>59</sup> Rook considers ritual as “a type of expressive, symbolic activity constructed of multiple behaviours that occur in a fixed, episodic sequence, and that tend to be repeated over time. Ritual behaviour is dramatically scripted and acted out and is performed with formality, seriousness, and inner intensity” (1985: 252).

<sup>60</sup> Geertz defines symbols as “a broad category of processes and objects that carry a meaning that is unique to a particular group of people” (1973: 79).

<sup>61</sup> This research lasted from 2003 to 2004 in order to diffuse a better knowledge of the environmental risk. The EU under the project “Rinamed, Interregg IIIB, SpazioMedOcc,” has financed it: 642 individuals have been interviewed.

<sup>62</sup> More answers were possible.

*Instead, they must understand that there is an increased probability of earthquakes or eruptions in certain areas — and that they must take responsibility for understanding the risks of where they live.”* (Huffington post, 2012)<sup>63</sup>.

Moreover, 90% of interviewed people consider that the institutional prevention of environmental hazards, as “very inadequate,” even if 38% of the sample considers that the organisation in recovery and post-traumatic management is “quite adequate” (Beretta, 2005). Broadly speaking it means that in the Italian “mentality” the institution are not considered as possible problem-solvers and when a catastrophe occurs a rhetoric blaming process is built with no concerns about the real responsibilities of the various authorities.

### ***The environmentally-friendly attitude***

Apart from little culture of risk, and the lack of clear communication of the risk, I can find two other significant key issues, useful to complete the analysis of the Italian cultural attitude toward catastrophes and risk: the importance of the sustainability and the respect of the public common goods. First, it is important to notice how, only recently – in spring 2011, the country has voted against the privatisation of the public water service started with Law n. 36/1994.

Secondly, the little culture of the public common goods is reflected also in a poor cognition and application at the local and national level of sustainable development features. During the World Economic Forum<sup>64</sup> held in Davos in 2011, a new index as a measure of overall progress towards environmental sustainability has been presented. Utilizing a proximity-to-target methodology, focused on a core set of environmental outcomes linked to policy goals, it measures the inclination of a given country to respect and apply the sustainable development principles: Italy is at rank 46, considering 146 countries<sup>65</sup>.

---

<sup>63</sup> “Earthquake Scientists Jailed Over ‘Inexact’ Statements Preceding 2009 L’Aquila Quake,” available at: [http://www.huffingtonpost.com/2012/10/22/earthquake-scientists-jail-conviction-italy\\_n\\_2002848.html](http://www.huffingtonpost.com/2012/10/22/earthquake-scientists-jail-conviction-italy_n_2002848.html), last access January 2014.

<sup>64</sup> An independent international organization that gathers together business, political, academic and other leaders of society. It is often criticised by activists and media because of its capitalistic imprinting. <http://www.weforum.org/>, last access January 2014.

<sup>65</sup> Environmental Sustainability Index, available at:

From the given examples about the general idea that only praying it is possible to avoid catastrophes and that the calamities occur as a punishment, a great sentiment of impotence (Virilio, 2008) characterises the Italian behaviour regarding risk, displacement and natural hazard.

### ***The privatisation of fear***

That Italian attitude seems to perfectly fit in the Bauman theories (2008) about the “privatisation” of fear: considering the risks, and specifically, the natural hazards, it is impossible to define a collective action and for this reason, it is impossible to individuate collective prevention behaviour.

This attitude, indeed, generates conflicts between citizens and dehumanizes the relation with nature because of a general sentiment of disenchantment, cynicism, opportunism and rancour (Ragone, 2012). This collective imaginary, that contributes to deprive of responsibility the citizens’ behaviour. Prevention and mitigation actions are very limited because they are considered as useless: nowadays, in Italy, the end of the Humanism and the end of rationality mean “*the awareness of acting with wickedness, and the feeling of powerlessness*” (Abruzzese, 2012).

In order to get a step further in the analysis, it seems that, for the Italian common sense, nobody can minimise the risk and that the scientific truth is just an opinion. When a catastrophe occurs, instead of doing an analysis of the lack of preventive public and private actions, a culprit is blamed and accused.

The anthropologists of disasters (among the others Douglas, 1996) studied in a cosmological way the symbolic orientation of primitive cultures and traditions and this studie can be associated with the analysis about the traditional knowledge and the myth (e.g. Morin, 2008). As mentioned by Ragone, “*the anthropology seems to consider the media as a disturb, a hypertrophy of information that can cause problems, rather than the place of the symbolic representation [of a given society]*” (2005: 16).

Analysing the collective imaginary means to focus on the cultural approaches of a given society. This analysis is a useful tool to better understand the social and cultural dynamics that a catastrophe can trigger and the consequences it can have in the short, medium and long-term. In order to conclude the analysis of the collective imaginary in

Italy, it is necessary to focus on the media and their treatment of emergencies. *“Relations of definitions include the rules, institutions and capacities that structure the identification and assessment of risks; they are the legal, epistemological and cultural matrix in which risk politics is conducted”* (Beck, 1997: abstract).

This analysis is necessary to better understand the objectification of the abstract world, namely, the link between the collective imaginary and the common language and the narrative *topos* about disasters, displaced people and risk, considering that the media have a fundamental role in the process of modernisation (Cottle, 1998).

One can ask how does this culture shape the language related to catastrophes in Italy?

## **II.2.b The language of media about emergencies**

*“Freedoms of speech and the press are constitutionally guaranteed. There are many newspapers and news magazines, most with regional bases. Newspapers are primarily run by political parties or owned by large media groups. When Berlusconi was prime minister, he controlled up to 90 % of the country’s broadcast media through state-owned outlets and his own private media holdings”* (Freedom House, 2013)<sup>66</sup>.

This analysis has been done by the Freedom House, an independent organization dedicated to the expansion of freedom. Since it, it is possible to understand the importance that the media have in the political and social Italian panorama.

### ***The importance of media in the Italian panorama***

It is not by chance that this Italian situation has been often described as a “media dictatorship”: this wide control of media, which aims to influence the behaviour and the opinion of the audience and the readers, distribute more or less rational and more or less true information, which contributes, to deny risks. This is because the ideas disseminated between the people act as material forces, which orient their actions (Marx, 1843).

At the same time, considering the perception that people have regarding the ability of the media to provide objective information about disasters, it is possible to notice

---

<sup>66</sup> “Italy”, available at: <http://www.freedomhouse.org/report/freedom-world/2013/italy#.UuemD-DX8y5>, last access January 2014.

how interviewed people consider the newspapers and the televisions as “few”/“at all” objective (Tacchi, 2005). The media clarity, namely the ability to communicate, but also the accessibility of the information, is sometimes negated: according to Agustoni (2005), this lack of transparency is due to the need, generally in the Italian context, to develop discretionary power margins for the policymakers: this element could contribute to the lack of credibility that Italians have towards media. Therefore, the lack of transparency, mixed with a centralisation of the communication power, reveals one of the crucial elements of the Italian culture.

From this assumption, it seems very interesting to analyse how Italian media treat catastrophes, and utilise them as a litmus test of the Italian society. Italian media often present the recurrent catastrophes, which provoke damages to people and goods, as exceptional calamities. In the media agenda, the “fear,” in fact, has an important element: seen as energy, mythology and fascination considering local and global scale, it helps to reach high audience levels. The showed, produced and reproduced themes are the fear about the end: the destiny of the ecosystem, the end of the civilisation, the collapse of the species and the downfall of the local communities represent deep cultural dynamics according to which, one seems completely powerless towards the modern risks and is allowed to privatise ones fear<sup>67</sup>.

This is why, the continuous imagination about the future risks represents the semantic and the narrative that is typical in the Italian society: “*this modern society at the same time auto-legitimise and auto-reproduce [...] generating insecurity*” and discomfort (Ragone, 2005: 13).

### ***Empirical examples of the media “spectacularisation”***

To analyse the issue of the media representation of the catastrophes and their consequences on human communities it is interesting to address the cases of the Aquila and the Emilia-Romagna earthquakes, as well as the crisis of wastes in Naples, in order to collect information about the use of catastrophes by media and have an overview of the way media treat on the calamities, on the risk prevention, and on the concerned

---

<sup>67</sup> In this sense, “*Television is thought to position us as individuated viewers, consuming standardized, increasingly globalized, programming while nonetheless opening up new vistas for private contemplation*” (Cottle, 1998: 5).

people. The choice of these cases has been done according to the relevance they had also in international public debate.

*a. The crisis of waste in Naples: a submerged city (2008-2010)*

An example of this attitude can be done considering the treatment of the crisis of waste in Naples during 2008-2009<sup>68</sup>. The idea is that the emergency of a city “submerged” by waste has been the reason to describe the structural problems that afflict the city of Naples because of a consistent mismanagement and wrong political choices mixed with private and public economic interests.

As it is possible to notice from the **Figure 2**, page 99, the local daily “Il Mattino” described Naples as being “*Naples again submerged under rubbish: 140 tonnes in the street: emergency for the hot season.*” “La Repubblica” (a centre-left general-interest national daily) considers the city as “*Once again submerged in an emergency situation.*” Even other newspapers, such as “L’Unità” and “L’Internazionale.” “L’Unità” and “L’Internazionale,” linked with the old Communist Party, no longer present in the Italian Parliament, title “*Naples submerged by rubbish. Berlusconi is accused*” and “*Naples submerged by rubbish. Popular anger explodes.*” “La Stampa” (a daily linked to the centre-right), had the same approach to the subject “*Naples submerged by rubbish. An argument between Berlusconi and De Magistris [the Mayor of Naples]*”.

This same approach, used by different dailies, from different political orientations, shows this question is not “political”, but that it has deeper roots. The media try to solicit the readers’ conscience to divert the attention from the causes to the effects, and to create a culture of the “emergency.” This culture of the emergency, in this sense, allows a normative approach ad hoc – specific for the post-catastrophe recovery, rather than global measures to prevent the catastrophes and their impacts.

The analysis of the media, which exaggerated the Neapolitan crisis, can be done considering the fact that the city, being the most anthropic place, represents in the modernity imaginary, the “symbol of the end” (Davis, 1998). According to

---

<sup>68</sup> The Neapolitan crisis was caused by the lack of waste collection between 2008 and 2009: it has provoked health diseases and other damages to the citizens.

Tagliapietra (2010), this is because the end of the city means the end of the *polis* as public space but also the end of *politics* as the space of confrontation<sup>69</sup>. It seems that the environmental catastrophes and the effects on populations are “*imagineered*” [in this sense] “*they are a mix between imagination and engineering. Imagineering designates a hegemonic practice of production of a particular perspective of the disasters considering the social order*” (Voss, 2012: 158).

Thus, all these elements can be seen through the lens of ecological journalism and consider the environment as a cultural good that needs increased media coverage in order to reach more audience (Lowe and Morrison, 1984). Accordingly, the spectacle of the catastrophe becomes a collective party, where the catastrophe is represented and maximised in order to ecstatically exorcise the fear.

During an emergency and in the post-traumatic phase, as it is easily deductible, the media have a crucial role: several authors (among the others Scanlon and Alldred, 1982; Lombardi, 1993) have underlined the importance of the communication filtered by the press, the radio, the web and the TV and the fact that all these actors contribute to shape the collective imaginary thanks to images and words, in a sort of “*interpretative map of the reality*” (Fonio, 2005: 119).

---

<sup>69</sup> It is interesting to notice how Babele, Babylonia, Sodom and Gomorrah are the places of the evil, the places of the sins, where the disasters represent the wrath of God against men (Boni, 2012).



Figure 2: The press and the waste crisis in Naples



Source: Personal elaboration from newspaper available on the web.

Thus, it is interesting to notice how the media contribute to the culture of fatalism. The Italian media, in fact, seem not to analyse the reality in an objective way, but they contribute to the mystification of the emergency, an end in itself.

#### *b. The Emilia Romagna earthquake (2012): between propaganda and polemics*

In analysing a press article it is also interesting to notice how the images take importance to appeal the reader: regarding catastrophes, Fonio (2005) has made a

taxonomy of the different sort of photography, which generally accompanies a press article: the following **Figure 3**, that corresponds an article of the “Il Sole 24 Ore” about the earthquake in Emilia-Romagna in 2012, that can be used as an emblematic example to show its categorisation.

First of all, Fonio individuates the photos of the “places” hit by the disaster (letter A in **Figure 3**); secondly, she shows how in the newspaper it is possible to find photography of people at work such as firemen or agents in charge of the rescues (letter B in **Figure 3**); thirdly, the author individuates the photography of the homeless, the victims and the displaced, according to the given definition (letter C in **Figure 3**). Thus, the words and the images are used in order to respond to a triple function: the first one is the answer to the community need of information about the facts; the second is the orientation of the perception of the given community; the third one is the collection of the depositions of the ones concerned by the catastrophes, which give more concreteness to the narration.

**Figure 3: The use of photography in press in the description of a catastrophe**



Source: Personal elaboration from “Il Sole 24 ore”, 30/05/2012.

The mass media become a key place in the social construction both considering the propaganda and the social contestation and criticism, and this element is very important considering the result obtained in the fieldwork, considering the main issue of the thesis, concerning the environmentally induced displacement phenomenon in a Global North country.

*c. The L'Aquila earthquake (2009): the media and the representation of the death*

It can be interesting to analyse the case of the media coverage of L'Aquila earthquake in 2009 by media, in order to show how media, principally the newspapers, treated that catastrophe in the short, medium and long-term<sup>70</sup>.

The narration of this earthquake can be done through the narration offered by the media, because *“only considering this perspective we can observe all its dimensions, in which we celebrate the death of the modernity: the spectacularisation of the catastrophe and its pop-politicisation”* (Boni, 2012: 175). Therefore, considering only the emergency I have individuated and collected several articles, presented in this section, concerning five different issues:

1. The political propaganda;
2. The research of the guilty parties and the scandal;
3. The urban dimension and the dead city;
4. Solidarity and charity;
5. The victims, the homeless, and the evacuees.

Considering the first frame “The political propaganda,” it is possible to notice how media underline the presence of the State and how they represent the manifestation of political power: the Prime Minister seems to be the person who will solve the crisis and who will console the hit population (**Figure 4**, page 102).

---

<sup>70</sup> The research is based on the consideration of the coverage of the catastrophe occurred on 6<sup>th</sup> April 2009 by the principal Italian newspapers the day after the seism (07/04/2012) from different points of view. The individuated analytical frame is inspired by Boni (2012) and by Scheufele (1999) previous researches.

“Il Secolo d’Italia”, and “Il Tempo”, two conservative newspapers, underline the immediate physical presence of the State, underlining how Mr Berlusconi<sup>71</sup> is encouraging the offended people “*The State is here: nobody will be abandoned*”. “Il Riformista” follows the idea that Berlusconi has been immediately present, but it notices how natural disasters can be a test for leaderships, because they can reinforce or disrupt power. “Il Corriere della Sera” analyses the presence of the Prime Minister and his willing to allocate funds for people in order to build new houses. “La Stampa” underlines how, not only the Prime Minister, but also other exponents of political forces are demonstrating their solidarity and are going to the disaster places in order to support the victims. The more critical “Europa,” instead, underlines how the Italian State can provide first aid, but it does not know how to prevent catastrophes.

**Figure 4: “The State is here”**



*Source: “Il Tempo”, 07/04/2009.*

In the light of the second issue, namely “The research of the guilty parties and the scandal,” it is possible to individuate different attitudes in the aftermath of the earthquake, which have different causes:

- The lack of anti-seismic buildings (“La Repubblica”);
- The presence of illegal constructions which are contrary to the urban planning roles (“Il Sole 24 Ore”); (**Figure 5**, page 103);
- A ruling class only interested in economical purposes (“Il Manifesto”, “La Repubblica”);
- Scientists not able to predict a disaster (“Il Giornale”).

---

<sup>71</sup> M. Silvio Berlusconi, at that time, 2009, Prime Minister.



The research of the guilty parties and the research of the responsibility are accompanied by a characteristic of the media discourse: the scandal.

In this sense, it is possible to assist to a rhetorical blaming process (Douglas, 1992), in which the behaviours of politicians, of businesspersons, and of scientists are stigmatised by the collective ethical and for this reason are generally considered culprits.

**Figure 5: “Deaths, pain and forgotten laws”**



Source: “Il Sole 24 Ore” 07/04/2009.

Taking into account the third issue “The urban dimension and the dead city<sup>72</sup>,” it is possible to retrace the different lines of investigation. The ruins, the devastated buildings are opposed to the evacuee camps and the idea of a ghost town is opposed to the imagined new town. In this dichotomy between past and future, the old and the new is possible to recognise the meaning of the “Apocalypse” as “revelation,” I have mentioned in the previous paragraph: one can notice, in this sense, a transition between the death and the life (Erbani, 2010). This is why “Il Sole 24 Ore” titles its article: “L’Aquila collapses,” “La Repubblica” comments that L’Aquila is a “cracked city” and “Il Corriere della Sera” underlines and shows the urban and architectonic dimension of the disasters not only in the City, but also in the entire Abruzzo Region (**Figure 6**, page 104).

Bearing in mind the fourth issue, named “Solidarity and charity,” it is necessary to reconsider one of the principal results of the previous paragraph. It is crucial to notice

<sup>72</sup> Davis M., (2002), *Dead cities and other tales*, 2002.

how the Christian sentiment of solidarity and charity can be considered as one of the most significant values in Italian attitude.

Figure 6: “Ruins and death in Abruzzo”



Source: “Il Corriere della Sera” 07/04/2009.

When a catastrophe occurs, everyone is called to help. Everyone has to demonstrate his generosity, solidarity, pity and compassion. Everyone has to participate, in order to help the “less fortunate” people according to a Catholic fraternity value. During the hours that have followed the earthquake, different manifestations of solidarity have taken place among the population in order to guarantee the rescues or in order to collect financial help to succour the victims.

“Il Messaggero” underlines this issue. The daily, in fact, stresses the importance of the national collection of material goods and economic funds for the hit communities (Figure 7, page 105).

Figure 7: “We are all with you”



Source: “Il Messaggero”, 07/04/2009.

“Il Gazzettino” titles its article “*The earth quakes and the men get brothers*”: it underlines the universal solidarity and praises the concrete help among the communities with the participation of each member to the collective wellbeing. In the same sense, “Il Sole 24 Ore” comments that “*From a tragedy a new national cohesion can born*,” underlining how all the political forces have to cooperate in order to help people to overcome their losses.

All these examples show the big importance that is accorded to the feeling of solidarity that seems to be a sort of positive consequence of the calamity, according to catholic values. However, often the tragedies have negative impacts on social cohesion and can severely damage the communitarian feelings.

The last issue I analysed in order to have a deeper knowledge about media and catastrophes, concerns the “The victims, the homeless and the evacuees.” The epic dimension of the victims and of their tragic story seems to be an important subject in the Italian newspapers. People have no responsibilities: a sort of fate decided their bad destiny and they are powerless in front of the tragedy (Marianelli, 1993). In the third part of the thesis, I reused this idea, as presented in the Italian case, to show how the phenomenon of the environmentally induced displacement is described for Global South countries.



In Italy the environmentally induced displaced, as they are presented by media, are not defined like that: the labels “victims” (“La Repubblica”), “evacuees” (“Il Messaggero”, “L’Unità”), “homeless” (“Il Giornale”) are much more present to describe the people involved in the catastrophe and that have to move in the aftermath of the event in the short, medium and long-term.

Moreover, as far as L’Aquila earthquake is concerned, in the emergency phase, most of the news focuses on the dead people in order to describe in a direct and sensationalistic way the huge consequences of the catastrophe. As shown before, the disaster is described as a “hecatomb” by “L’Informazione,” as “a Calvary” by “L’Unità” (that symbolically associates to the article an image showing a monument of Jesus between the ruins in the following Figure 8).

**Figure 8: “Abruzzo Calvary”**

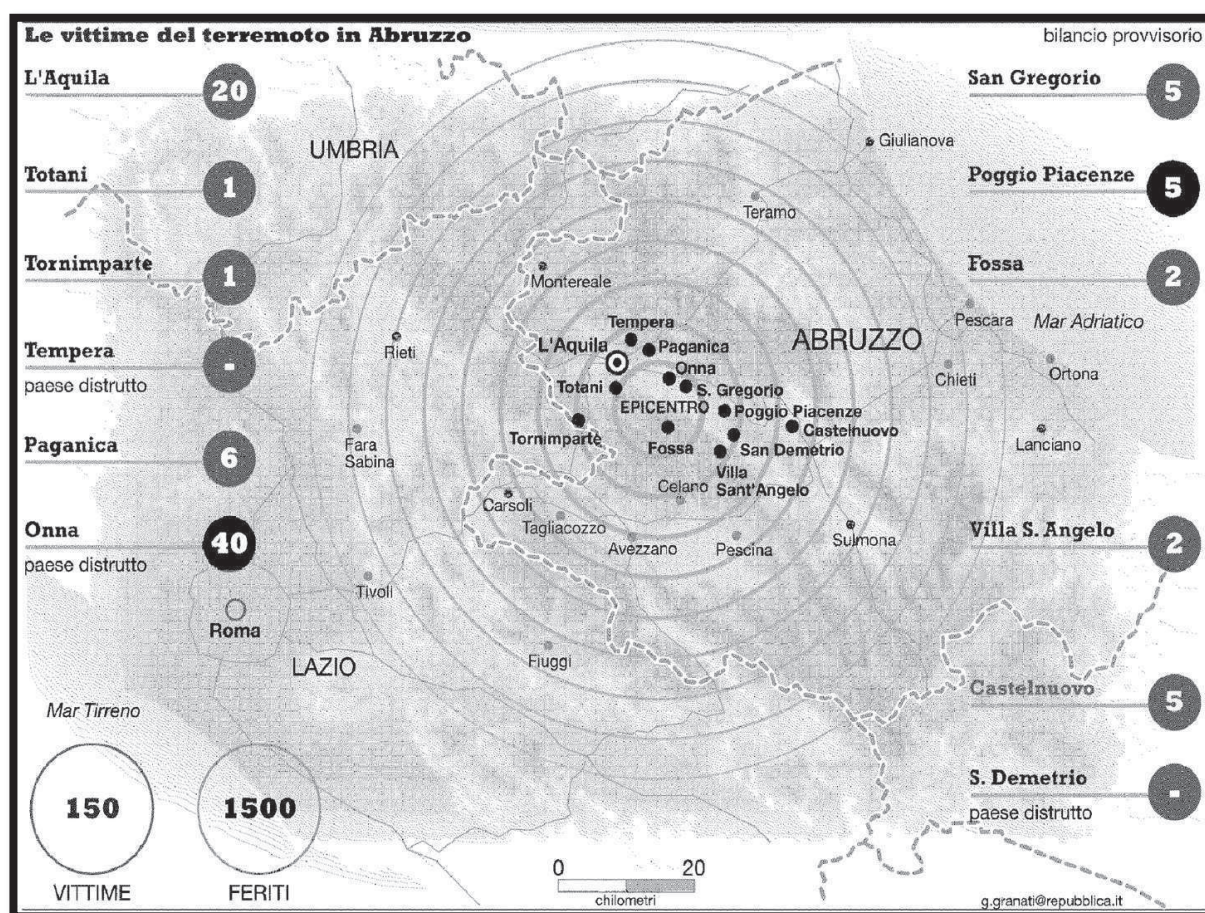


*Source: “L’Unità”, 07/04/2009.*

“La Repubblica” describes the number of dead people and the distressed, through an info-graphical map (following **Figure 9**). It presents the number of victims on a geological map, where the epicentre of the earthquake and the different towns hit figure. On the top of the map the writing “bilancio provvisorio,” meaning “temporary appraisal” means that other victims are expected in the following hours.

It is interesting to notice the graphical superposition of the natural event (the earthquake) with the victims. This simplistic vision according to which to the epicentre corresponds a bigger number of victims and to the farther hit places an inferior number, completely denies all the theory about the exposition to risk and to vulnerability.

**Figure 9: The victims of the earthquake**



Source: “La Repubblica”, 07/04/2009.

Thus, as for the previous images, also the photos, which go with the articles, are at the same time very impressive and show the bodies aligned and covered by sheets (**Figure 10**, page 108): this attitude used in the representation of the catastrophe by media is a

useful example to understand how they contribute to give a biased representation of the disasters, appealing to the compassion sentiments of the readers.

**Figure 10: The bodies**



*Source: "L'Informazione", 07/04/2009.*

These are some examples of how Italian newspapers portray natural disasters, to summarise when a catastrophe occurs, Italian media always try to describe the immediate consequences and to individuate the guilty party.

This symbolic reproduction of the catastrophe, of the divine punishment and of the man's faults becomes a show that describes, in a dramatic way the impact of the calamity, between the ruins and the victims, between the evacuees and the rubbish. Therefore, the media, at the same times produce and reproduce the collective imaginary and the values of a given society.

### ***The semantic of the catastrophes***

For the Italian media, it is possible to individuate specific semantics of the fear: death, victims, disaster, calamity, evacuees, ruins, diseases, tragedy, emergency, crisis, are the most used words in the description of the catastrophes. Nobody talks about social or environmental vulnerability or risk exposure; it is rarely possible to find journalistic sources referring to a deeper analysis of the multi-causality of the risk and of the environmental hazards: everything stays on the surface, floating between culpability feelings and powerlessness. This general approach implies that



no preventive actions are taken for future events and that the long-term consequences are not avoided on the short-term.

After having investigated the general treatment of the Italian media – specifically newspapers – about environmental catastrophes, considering L’Aquila and the Emilia-Romagna earthquakes, and the waste crisis in Naples, it is now possible to focus on the relation between local and national authorities and the catastrophes. How do they behave? How do they show their concern to the distressed population? Do they preside in the place hit by the catastrophe? What language is used to describe people concerned by the catastrophe? What kind of compensation do they propose?

Official reports and government document excerpts, crossed with newspaper articles and other researches are used to describe the attitude toward the catastrophes. The case of L’Aquila earthquake, used, among the others, to analyse the media coverage of a catastrophe is, indeed, analysed and commented in order to give more concreteness to the answer I try to give to the afore mentioned questions.

Moreover, the examples from the case of Naples and of the Emilia-Romagna show how media construct an epic image of the catastrophic events and which kind of political implication it has. This choice is determined by the need to analyse an event that could reveal all the complexity of the Italian system also to non-Italians: its international reputation can, in fact, facilitate the comprehension of all the features, which characterize this country.

The specificities of this country can be referred to a high politicisation of the media debate and of the representation of environmental catastrophes in a very biased way in the aim of electoral purposes. The analysis done allow us to have a general overview on the case of Italy, moreover, it will help the reader in the understanding of the two case studies of the thesis, Sarno and Cerzeto through the lens on the environmentally induced displacement framework.

### **II.2.c National authorities and catastrophes**

The risks that modern society has to face to are often deprived of a juridical frame or a specific political organisation: these multifaceted and crosscutting risks, in fact, often

stumble on the rigidity of the nation-state, the lobbies and the economic interests (Beck, 1982).

### ***The management in the aftermath of the event***

Generally, neither the local nor the national authorities are able to operatively face the catastrophes: the bureaucratic machine is often very heavy and it is very difficult to efficiently react to the calamity: the authority has to control, to authorise, to survey and to manage<sup>73</sup>. This is why the management of the catastrophes is always conducted as an emergency, even in countries where, as Italy, natural disasters become more and more frequent and the necessities and the expertise of the local populations are rarely taken into account when the strategies of territorial protection and natural disaster prevention activities are planned (Cucca, 2005).

It is also necessary to consider that, according to some scholars (among the others Augustoni, 2005), Italians generally do not trust politicians and politics because of a complex historical politic scenario that completely biased the relation of the civil society with the power. From the one hand, the people who had a “political socialisation” during the ‘70s, biased by the role of the parties, feel betrayed from the attitude of local and national politicians; on the other, the generations who did not receive that kind of political education are completely disappointed about the behaviour of the politicians and they generally consider them as “*unclear, incompetent and not-believable*” (Augustoni, 2005: 70).

### ***The attitude of Italian authorities facing catastrophes***

Through this interpretative frame, it is possible to analyse the behaviour of Italian authorities, facing the L’Aquila earthquake in 2009, considering their attitude, the way through which they managed the recovery and the relations with the local population. The media, as seen, have represented L’Aquila earthquake as a show (where, of course, the

---

<sup>73</sup> The perception of the communities about the national and local authorities, the difficulties in the organisations of the rescues and the management of post-traumatic stress have been showed by Tacchi (2005). The author underlines how people generally “do not appreciate” the management of the risk and the post-traumatic phase.

audience is always in the clear): the theatricality of the politics has as stage the ruins of the city. After having declared the state of emergency<sup>74</sup>, the politicians walking through the ruins are the metaphor of the “*good-politics and the patriotic feeling: proud of their identity and virtuous in the management of the ‘res publica’*” (Felice, 2010: 11), this is because, in the name of the piety, and for different purposes, the national feeling can be revived, following the Latin ideology “*ex malo, bonum*”, from the bad, the good. It is in fact interesting to notice how, after having spent three days in the hit area overseeing the relief effort and comforting the homeless, the approval rating of Mr Berlusconi jumped forward four percentage points, according to a poll of the daily “La Repubblica”<sup>75</sup>.

This element should be, in fact, seen through the lens of the scandals and of the chronicle events that affected the Italian government during 2008-2009 and the consequent loss of popularity. Moreover, in the case of L’Aquila, the politicisation is done in a sort of show, performed by the Prime Minister, as a constitutive act of his leadership. The “Head” helps the people, uses his hands to dig in the ruins: all these actions “close to the people”, indirectly allow the government to take top-down decisions, because of its popularity; so the Prime Minister becomes at the same time site-manager, engineer, gardener, architect, an action man, a modern super-hero (**Photo 1**, page 112).

The representation of the calamity through epic images is very recurrent. This issue seems to be fundamental in the analysis of the negation of the phenomenon of environmentally induced displacement in Italy. In fact, the personification of the management of the catastrophe provokes the fact that the media, instead of focusing on the people involved in the event, show the person, which represents the safeness for them in a sort of a modern saint patron.

In parallel, during the emergency phase the government was not only present through its formal helping of the population: in order to reaffirm the authority his juridical, executive, coercive and administrative power a “*huge numbers of vehicles and vast stockpiles of materials were rapidly assembled and applied to the problems of cordoning off the areas*

---

<sup>74</sup> Decree of the Prime Minister of 06.04.2009. “*Dichiarazione dello stato di emergenza in ordine agli eccezionali eventi sismici che hanno interessato la provincia di L’Aquila ed altri comuni della regione Abruzzo il giorno 6 aprile 2009*”, available at: [http://www.protezionecivile.gov.it/resources/cms/documents/dpcm\\_06\\_04\\_2009\\_aquila.pdf](http://www.protezionecivile.gov.it/resources/cms/documents/dpcm_06_04_2009_aquila.pdf), last access January 2014. Some scholars have showed how the utilisation of the “state of emergency” hides an abuse of power from the government (among the others Angiolini, 1986; Camus, 1965).

<sup>75</sup> “*Gli scandali di Berlusconi alla prova del G8*”. “La Repubblica” 29/06/2009.

*of destruction, buttressing precarious buildings, feeding and housing displaced populations and coordinating the flow of relief goods and personnel” (Alexander, 2012: 9).*

**Photo 1: Berlusconi between the ruins**



*Source: “L’express” 09/04/2009<sup>76</sup>.*

### ***The state of emergency***

This is why, in the case of L’Aquila the government needed the “state of emergency”<sup>77</sup> as a permanent state, in order to reaffirm its presence and so testify its power.

In the medium term, the symbolism of giving homeless new houses cannot be underestimated: foreign media highlighted Berlusconi’s “*characteristically tactless remark that the homeless should think of themselves as being on a ‘camping weekend’*,”

---

<sup>76</sup> Available at: [http://www.lexpress.fr/actualite/monde/europe/en-italie-le-tremblement-de-terre-a-certainement-fait-300-morts\\_752773.html](http://www.lexpress.fr/actualite/monde/europe/en-italie-le-tremblement-de-terre-a-certainement-fait-300-morts_752773.html), last access January 2014.

<sup>77</sup> As foreseen by the Art. 4 of the Italian Constitution: “*The government can suspend or some functions of its executive, legislative or judiciary during this period of time*”.



*his slip was barely reported in Italy itself*” (The Guardian, 2009)<sup>78</sup>.

The costs of the transitional shelter, framed under the “C.A.S.E. project”<sup>79</sup>, worked out at €3,750 per square metre, an average of €280,607 per family unit (Calvi and Spaziante, 2009) as much as a comparable apartment in a major city. Moreover, nothing has been done to improve the access to public structures and “*much money was spent on intensively buttressing the ruined buildings in the town centres, which remained cordoned off against public access. However, the government could not afford to remove the estimated 4-5 million tonnes of rubble from these sites. The CASE units did not live up to their designation as ‘eco-compatible’. Although they have solar panels for water heating, lack of services and public transportation has induced a massive dependency on the private car*” (Alexander, 2012: 9).

In the long-term, the rehousing, (namely the forced environmentally induced displacement) was done without any consideration to the problem of conserving social cohesion in the assignment of housing units. On the contrary, nothing has been done for transportation and services, leaving the population devoid of shops, bars, bus services, schools, and medical centres. Between its real and imagined tragedies, the Aquila news take become relevant also at an international level in order to affirm globally the credibility of the country and to gain popularity in order to maintain its power base.

It is not by chance that the Prime Minister Mr Berlusconi decided to host in the city the 35<sup>th</sup> G8 summit on July 8–10, 2009. The politician, in fact, was convinced that receiving the others “big” in this environment would have represented a message of hope to the population. “*This choice transformed a tragedy into a summit show among the ruins*” (Felice, 2010: 12).

### ***The political show***

The daily “La Repubblica” titles: “*The Big Ones among L’Aquila ruins. Obama applauds the Italian leadership*”<sup>80</sup> (Figure 11, page 114). Local people received very

---

<sup>78</sup> “Silvio Berlusconi wants G8 to be in earthquake-stricken city of L’Aquila”, available at: <http://www.theguardian.com/world/2009/apr/24/silvio-berlusconi-g8-laquila>, last access January 2014.

<sup>79</sup> “Complessi Antisismici Sostenibili ed Ecocompatibili”, Anti-Seismic and Eco-friendly housing: is a plan thought to give new houses to the people who had their houses damaged or destroyed during the earthquake in 6<sup>th</sup> April 2009.

<sup>80</sup> *Ibidem*.

little from the summit: only redolent symbolic moments showed to the World by the constant presence of the TVs, which aimed to generate a sort of “*post-modern global solidarity*” (Alexander, 2014: 11). L’Aquila becomes at the same time a “global place” (Felice, 2010) and a “non-existent place” (Augé: 1992): the capital of the fear stands over there, and it is ready to be transformed into a political and commercial profit (Priulla, 2005). This is the reason why the nature and its power are politicised (Marinelli, 1993).

Figure 11: Obama and Berlusconi among the ruins



Source: “La Repubblica”, 09/07/2009.

The power needs the media to be reproduced and to reaffirm its authority: this is why the Italian government during the analysed emergency acted showing its proximity and its solidarity with the concerned population, visiting the hit places and showing them to the World as a hunting trophy to be commiserated.

Nevertheless, this proximity seems only to be acted for the media. Apart from the moment consequent to the catastrophes, the authorities are extremely distant from the local communities. This element not only reveals the importance of the media in the political propaganda, but it also shows how powers can benefit from the catastrophes for electoral purposes, for example.

### *The language of the authorities*

Accordingly, the government considers the hit population as “victims” at most as “homeless”<sup>81</sup> and they propose them a compensation that reaffirms the political power: the government saves the “victims” and builds “new houses.” The agency of the hit population, such as its level of choice, is continuously denied and the dependency from an external authority is asserted. It is interesting to notice how, also for such theatricalised dramatic event, the concept of “environmentally induced displacement” is never mentioned and, on the contrary, it is minimised because the government will take care of them. The authorities talk about homeless; never mentioning the forced mobility experimented by people. They talk about reconstruction only for business, not considering the material and immaterial losses of the communities.

It is possible to retrace the common trajectory of the Italian authorities facing catastrophes: there is the maximisation of the emergency, strictly considering the event, because of popularity concerns, but apart from formal promises, nothing is put in place for the long-term displaced management and nothing is done to prevent further possible disasters. Nobody can do anything, nobody could have done anything, even the politicians seem to be fatalistic, they can only “help” or “save” the population hoping that the catastrophe will never happen again.

\*\*\*

In this chapter, I analysed what are the main features of the Italian collective imaginary toward risk management.

First, I pointed out how the Italian attitude in the consideration of natural hazard and catastrophes is very fatalistic. If the causes of this approach can be referred to religious beliefs but also to the post-modern privatisation of the fear, the consequences of this

---

<sup>81</sup> As called in the C.A.S.E. project, available at, [http://www.protezionecivile.gov.it/cms/view.php?dir\\_pk=395&cms\\_pk=15861](http://www.protezionecivile.gov.it/cms/view.php?dir_pk=395&cms_pk=15861), last access January 2014.

specific “mentality” generate a biased perception about the responsibilities of a given events and reinforce the research of a scapegoat in the aftermath of a specific event.

Secondly, I investigate how this specific culture shapes the language and the narrative about the catastrophic events. Because of the importance of media in the Italian public opinion, I provided empirical example to analyse the narrative surrounding the emergency phases of three catastrophes: from this analysis it has been possible to observe an exaggerate semantic in the description of the events often related to religious metaphors and associated to shocking images concerning the described event. The fatalism and the blaming process are reinforced and reproduced in the media and, indeed, in the collective imaginary.

Thirdly, I pointed out the attitude of the Italian authorities in the aftermath of an event. It is interesting to notice how the presence of the authorities in a place hit by a catastrophe is presented as a show. The politicians act as they were personally touched by the event: they dig between the ruins or they comfort the community. Nevertheless, their action, their presence is often present as “salvific.”

The reproduction of the stereotype of the “saviour” helping the “vulnerable” can be easily inscribed in a religious frame opposing God and the observant, which faith is reinforced during the crisis. Metaphorically, the faith is replaced by votes, allowing the power to further top-down actions.

## Conclusion to part II

This second part of the thesis has been essential to frame the observatory fieldwork findings that I will present in the next part.

Since the past, the link between geographical influx, society constitution and its juridical framework has been addressed: from Aristotle (5<sup>th</sup> century B.C.), passing through to Montesquieu (1748) Bloch (1967), to Febvre (1980), physical causes have been recognised as the determinants of the moral consequences on the communities and their way of life, even in contemporary societies. In fact, even if the geographical environment confines always less the men, the men confine it always more (Braudel, 1965). Talking about cultural and behavioural attitudes is very complicated because this analysis should take into account different elements, which are not often easy to extrapolate from their context, in particular when talking about risk management and catastrophes. The Italian case, in this sense, is a very pertinent example.

First, I have pointed out how since the past this country has known destructive catastrophes, which have shaped the collective imaginary of the society and have provoked the emergence of a fatalistic sentiment. This feeling, linked to religious beliefs and traditional popular convictions, explains the specific characteristic of the Italian strategies to cope with the environmental crisis and emergencies, which is completely deprived of a homogeneous normative corpus. This attitude could also explain the few investments done in order to prevent the disasters: only after the event, the authorities arrive on the concerned place, which becomes the stage for future promises. The lack of normative *corpus* seems to perfectly correspond to an inorganic strategy to cope with the catastrophes because of a fatalistic sentiment. Faith and cultural elements cross shaping the Italian attitude in a very fatalistic way, when considering risk prevention and catastrophes management.

Secondly, I pointed out how in this country, cultural, social, environmental and economic elements cross and produce a specific attitude considering the risk management and the treatment of environmentally induced displacement, that reveals the complexity of this country but also its vulnerability, often denied by the media and by the authorities, which, on the contrary, often uses the catastrophes as propaganda. The acts of God which punish the man in a post-modern way are the *leitmotif* through which the catastrophes in Italy are presented by the media: the population is victimised and only the

presence of a strong government becomes the way to escape the tragedy: the case of the wastes in Naples, such as the case of the two analysed earthquakes (Emilia-Romagna and L'Aquila ones) usefully show this link between media and power and all the phases which concur to the construction of the national narrative about natural disasters. The central issue, underlined by the media and the authorities is always the powerlessness of men toward natural power. The blaming process is done against scientist and with any concern about the preventive or mitigate action that civil society and authorities could have done in order to prevent the tragedy.

One can observe that at both a normative and a media level, there is no recognition about the phenomenon of environmentally induced displacement in Italy. The examples from the fieldwork in Sarno and Cerzeto are essential to have a deeper insight on this misrecognition in Italy, taken as example for the Global North.

### III. An empirical approach: observations from Sarno and Cerzeto

*“Well the landslide  
will bring you down, down”.*  
(Fleetwood Mac: 1975).

#### Introduction

Through the evaluation of the Italian context I observed a fatalistic attitude crossed with a lack of specific normative framework toward the catastrophes and their consequent mobility. Considering the main research question, Why the environmentally induced displacement phenomenon is not generally recognised in the Global North, even if it does exist in this area of the world?, I decided to provide a more analytic insight at local scale through the study of the cases of Sarno and Cerzeto, both affected by a landslide. The objective was to analyse the different discourses, definitions, treatments, debates and representations of the catastrophes and their consequent mobility.

The choice of these two empirical examples derives from the desire to analyse the specific issue of environmentally induced displacement and its interpretations in the public and private discourses on the medium and long-term, in two different physical and political contexts: the landslide in Sarno, a town near Naples, occurred in 1998, while the landslide in Cerzeto occurred in 2005. This time-difference becomes also relevant in the analysis of the different patterns of memorialisation of a catastrophic event, and of its consequent mobility.

Thus, in order to examine all the facets of the discourse of the environmentally induced displacement phenomenon, I analyse the position of all actors who participate to its definition, namely the displaced themselves, the authorities, the experts, the local associations and also the media (press and television). The two examples of Sarno and Cerzeto allow me to take a step further in the understanding of the main question of the thesis, concerning the evaluation of the construction, the representation of, and the narrative about, the phenomenon of environmentally induced displacement in Global North countries.

This part firstly analyses the fieldwork research process, presenting the sample and also the methodologies adopted to conduct the observations in the two cases. Secondly, it studies the context of the catastrophic events that occurred in 1998 and in



2005 in Sarno and in Cerzeto<sup>82</sup>, and provides an observation of the different kinds of mobility produced by the catastrophes and the strategies adopted by the affected populations. I consider the consequent forms of mobility in the aftermath of the two landslides, through a spatial analysis (in order to understand the trajectories of such mobility) and a temporal one (in order to understand the individuals' movement in the short, medium and long-term).

Thirdly, I analyse the different forms of discourse, memorialisation and elaboration, considering the media treatment and the public and private form of definition of, and debates and narratives about, the catastrophes and their consequent mobility.

The conclusive chapter of this part is devoted to the exposition of the data and of the observation from the two analysed cases. The analysis is performed through various theoretical tools, permitting to emphasise the different aspects of findings, and covers, in particular the social and the economic consequences of the two catastrophes.

The data and the findings of both illustrative fieldworks are useful in order to answer the main problematic question related to the minimisation in the public debate of the phenomenon of environmentally induced displacements in the Global North.

---

<sup>82</sup> It is important to notice that the names Cerzeto and Cavallerizzo are indifferently used to design the district that has been displaced. The new settlement, located in the plain called Pianette (namely "little plain") is indeed called both "new Cerzeto" and "new Cavallerizzo."

### **III.1 The steps of the research process**

#### **Introduction**

In order to have a comprehensive approach to the definition, use and narrative surrounding the phenomenon of environmentally induced displacement in Italy, I decided to provide two examples. Through empirical observations, I analysed the impact of two hydrogeological events on the two communities' mobility and the narrative surrounding the two events in the short, medium and long-term.

To interpret the empirical studies, I use some scientific literature concepts related to human mobility and vulnerability. The methodology I used is characterized by a qualitative and inductive approach, aiming to triangulate data sources: “*‘What is happening or has happened?’ – or an explanatory question – ‘How or why did something happen?’*. As contrasting examples, alternative research methods are more appropriate when addressing two other types of questions: an initiative's effectiveness in producing a particular outcome (experiments and quasi-experiments address this question) and how often something has happened (surveys address this question). However, the other methods are not likely to provide the rich descriptions or the insightful explanations that might arise from doing a case study” (Yin, 2012: 5).

In this chapter, I firstly analyse the different data source used to perform the analysis of Sarno and Cerzeto and then I focus on the presentation of the sample used to collect primary “first hand” information, namely individuals, experts, associations and institutions met during the fieldwork.

#### **III.1.a “First” and “second hand” data**

The first step for the preparation of the observatory fieldwork has been the review of “second-hand” data, lasted almost 2 months between June and July 2012. Archives and libraries, of the national and local institutions and associations that participated in the recovery after the landslides, and of the Universities in which researchers produced

scientific works about the issue, have been consulted in order to acquire a comprehensive *corpus* of quantitative and qualitative data (as detailed in **Table 4**, page 123).

Geographic, demographic, economic, natural and cultural variables have been taken into account to have a detailed contextualisation of the landslide and its impacts on communities' mobility. Furthermore, the study of press articles and TV news channel concerning the two catastrophes has been necessary in order to conceptualise the definitions given to the people involved into the catastrophe, and the narrative about the events. Children drawings from one exposition in Sarno have been also collected to analyse the impact over the representation of the catastrophe in the aftermath of the event. Once the analysis of the "second hand" data completed, the second step concerned the fieldwork and lasted three months for Sarno (from August to October 2012) and two months for Cerezeto (November and December 2012). The *corpus* of "first hand data" was collected through 65 qualitative interviews to affected people, experts, associations, and authorities.

During the fieldwork, I decided not to use general surveys because it was essential to analyse the individual perceptions of the catastrophe and its related mobility in order to understand the different definitions of, and narratives about, the phenomenon in different contexts. Rather than trying to increase the number of interviewees, I multiplied the evaluative approaches: the analysis of people's discourses, their drawings and mental mapping, my photos, notes and recording in both Sarno and Cerezeto, but also in Naples, Benevento, Cosenza and Rome. All these observations do not have the presumption to be statistically representative. They only provide a deeper insight about the catastrophes and their impacts on human mobility, as well as their conceptualisation in the two cases. Associations, experts and institutional representatives, have been chosen according to their relevance in the prevention activities or in the post-recovery response.

**Table 4: “Second hand” data used in the research according to their nature, the providing institution and location**

Data	Kind of institution	Location	Name
Historical economical and demographical	Municipal Archive	Naples	Municipal Archive
		Naples	Royal Bourbon Archive
		Cosenza	Municipal Archive
		Sarno	Municipal Archive
		Cerzeto	Municipal Archive
	Regional Archive	Naples	Regional Archive of Campania Region
		Cosenza	Regional Archive of Calabria Region
	Institute of Statistics	Website	National Institute of Statistics (ISTAT)
Media Archive	National Library	Naples	National Library
		Website	Ministry of the Interior
		Website	RAIteche
	International	Website	Youtube
Environmental patterns and landslide dynamics (causes and effects)	Governmental Institution	Naples	Campania Regional Agency for Soil Defence (ARCADIS)
		Rome	National Civil Protection (PC)
		Naples	Autorità di Bacino Destra Sele”(ADBDS)
	Foundation	Rome	Fondazione per lo Sviluppo Sostenibile (FSS)
	Association	Naples	Legambiente Campania
		Naples	Legambiente Napoli
		Cosenza	Legambiente Calabria
		Naples	Green Peace Campania
		Sarno	Rinascere
		Cerzeto	Cavallerizzo Vive
General literature on natural sciences, sociology, psychology, political science, urbanism, architecture, and media communication	University	Benevento	University of Sannio
		Naples	L’Orientale University
		Cosenza	University of Studies of Calabria
		Naples	Federico II University
		Salerno	Università di Fisciano
Exhibition Drawings	Association	Sarno	Rinascere

Source: Personal elaboration.

### III.1.b The sample of the interviewees

The 65 qualitative semi-structured interviews were performed in order to allow for the production of a personal account (Bertaux, 1980). Thus, apart from different standard questions, prepared to guarantee the comparability among the two case studies and the research dependency and transferability, the witnesses of the different interviewees have been necessary to construct a deeper evaluation of the studied phenomenon (Denzin and Lincoln, 1994) in an inductive process (Silverman, 2002).

This reflects the necessity to frame the social and cultural identity of the interviewees and analyse their reactions in the face of the catastrophe, their perception of risk, vulnerability and management of the catastrophe and their resilience capability.

An overview of the sample (divided in Experts/Academics, Associations/NGOs, Individual and Authorities) is provided in the following **Table 5**. As one can notice the number of interviewees in Sarno exceeds the number of interviewees in Cerzeto for the category “experts”, “associations” and “authorities”: this is because in the first case the catastrophe caused physical losses, thus involved more actors in the recovery phase and had a bigger echo in scientific production in various fields (psychology, sociology, and natural sciences).

**Table 5: The interviews**

<i>65 interviews</i>	<b>Individuals</b>	<b>Experts</b>	<b>Associations</b>	<b>Authorities</b>	<b>Total</b>
<b>Sarno</b>	<i>11</i>	<i>7</i>	<i>11</i>	<i>10</i>	<b>39</b>
<b>Cerzeto</b>	<i>11</i>	<i>4</i>	<i>4</i>	<i>7</i>	<b>26</b>

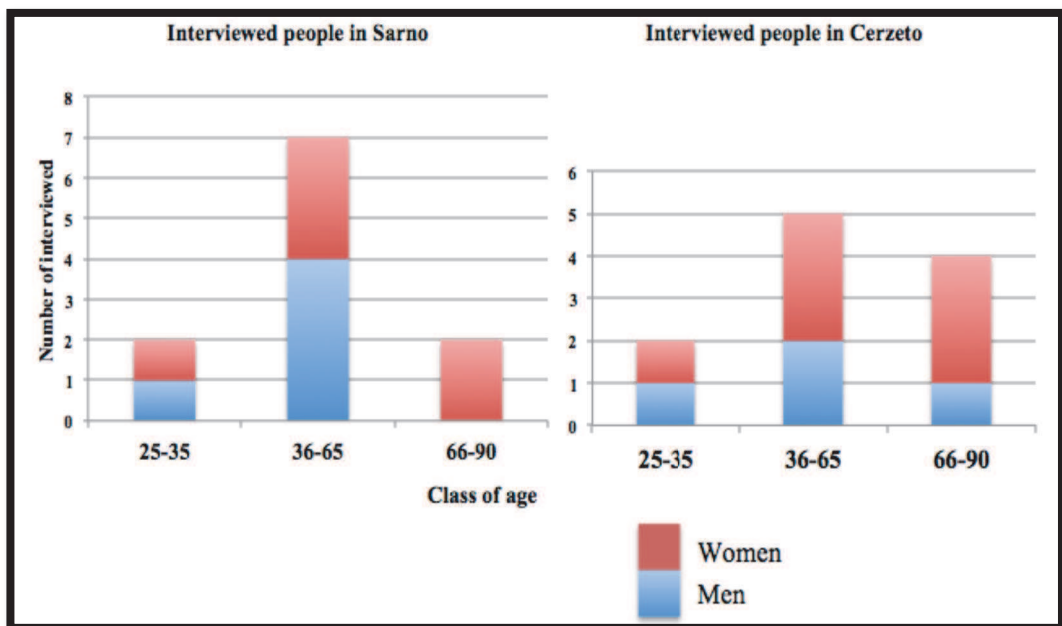
*Source: Personal elaboration.*

## *The categories of interviewees*

### *a. Individuals*

The first category analysed are the “Individuals”. I consider in this table only the people with whom I could conduct semi-structured interviews and experiment the different research methodologies, even if, during the fieldwork, I had frequent exchanges with other people, in particular other members of the interviewees’ families. Because of the recurrence of some names (such as Anna, Maria, Salvatore), the real names of the people are presented with just a letter, assigned in alphabetic order and according to the chronology of the research. The individual interviews cover general background information (8) and specific questions (32), for a total of 40 topics, as showed in **Annex I**, page 386. At the end of the interview, I asked to draw a freehand representation of the catastrophe (Nigro, Galli and Poderico, 1989): the drawing can be interpreted and framed in a human geography perspective. The sample of the interviewees included 13 women and 9 men (following **Table 6**).

**Table 6: Sarno and Cerezeto’s sample by sex and age**



*Source: Personal elaboration.*

The predominance of women, in particular in the case of Sarno, depends on the specificities of the two fieldwork sites: it is due to cultural habits in Cerzeto and to the fact that the biggest part of the landslide survivors, in Sarno, was women. The most representative category is the adults (36 to 65 years old). In the case of Cerzeto, a big presence of the elderly can be related to the fact that it is a rural village and the young generations generally have moved abroad for work. In the case of Sarno, the fact that the catastrophe occurred 14 years before the fieldwork could justify the lack of very young people in the sample.

*b. Associations*

Within the “associations” category, I group all the people I met who work (or worked) or volunteer (or volunteered) in local or regional associations, during or in the aftermath of the events (15 people in total). The division between “local” and “regional” is important to understand the different linkage between the institution and the territory, in the following **Table 7**.

**Table 7: Sarno and Cerzeto’s associations sample**

Association	Sarno		Cierzeto	
<b>Local Associations</b>	<i>Interviewees</i>		<i>Interviewees</i>	
	6	Legambiente Napoli	3	Associazione Cavallerizzo vive
	1	Comitati Riuniti per Sarno		
	3	Rinascere		
<b>Regional Associations/NGOs</b>	1	Legambiente Campania	1	Legambiente Calabria
<b>Total</b>	<b>11</b>		<b>4</b>	

*Source: Personal elaboration.*

Legambiente is an Italian environmentalist association founded in 1980. Through its presence on the territory at national, regional (for example in the case of Campania and Calabria Regions) and local level (in the case of the Province of Naples), it organizes



environmental monitoring campaigns and environmental education campaigns, and publishes an annual report on environmental crimes related to the activities of criminal organizations. Its mobilisation in the aftermath of the Sarno and Cerzeto landslides has been very important in order to sensitise the local and national public about the environmental degradation issue and to prevent further catastrophes.

The Sarno local association “Comitati Riuniti per Sarno” (United Committees for Sarno) was created to fight speculation in the landslide-affected area: it focused on the planning of the reconstruction and of the resettlement through a dialogue with the local and regional institutions concerned in the requalification of the area, and became a recognized mediator between institutions and population throughout the whole process. The Sarno local association “*Rinascere*” (“Be born again”) was created in June 1998, a month after the landslide. Its mission is to ensure the people affected by the catastrophe have access to adequate legal protection, through the sharing of experiences related to the event and its aftermath. In addition, according to the president (A.M.), the association “*aims to be representative for collective actions and bottom-up initiatives, such as memorials and a weekly review*”, “*Linea Rossa*” (“Red Line”) part of the project “*5 Maggio, la memoria, il futuro*” (“5<sup>th</sup> of May, the memory, the future”).

In the aftermath of the event, the association, with the NGO “Save the Children”, organised an initiative for the psychological recovery of the children involved in the landslide. The exposition of their drawings, called “5<sup>th</sup> of May”, collects all the graphical representations of the children participating in this project. In addition to the mental map I asked the interviewees to draw, I use these “second-hand” drawings to highlight the feeling of the shock experienced by the affected individuals, and to have a direct representation of the event, and consequent losses and mobility.

The Cerzeto local association “Cavallerizzo vive – Kajverici Rron” (“Cavallerizzo lives”) was established in the aftermath of the decision to resettle the community, in order to protect and promote the civil rights of the resettled and protest against the abandonment of the old village. It is interesting to notice it was named both in Italian and Arbëreshë (the language of an ethnic and linguistic Albanian minority living in southern Italy).

*c. Experts*

I define as “experts” or “academics” the 11 people met in universities or in research centres involved directly or indirectly in studies related to the catastrophes (following **Table 8**).

**Table 8: Sarno and Cerketo’s experts sample**

<b>Experts/Academics</b>	<b>Sarno</b>		<b>Cerketo</b>	
<i>Discipline</i>	<i>Interviewees</i>	<i>Affiliation</i>	<i>Interviewees</i>	<i>Affiliation</i>
<i>Geography</i>	2	University of Fisciano	0	
<i>Economy</i>	1	Independent researcher	0	
<i>Geology</i>	1	University of Sannio	2	Università degli Studi della Calabria
<i>Sociology</i>	1	University Federico II	0	
<i>Philosophy</i>	2	University of Fisciano	0	
<i>Architecture</i>	0		1	Independent
<i>Engineering</i>	0		1	Independent
<b>Total</b>	<b>7</b>		<b>4</b>	

*Source: Personal elaboration.*

In the Department of Geography (Professor Aversano and Professor Cascini) and of Philosophy (Professor Garruti and Professor Truda) of the University of Salerno, as well as in the department of Sociology of the University of Naples (Professor Orientale Caputo), I had the opportunity to collect data and information about the spatial relations between the people in Sarno and their hazard-prone geographic context. The contacts with the economist (the researcher Dr. D’Alisa) and the geologist (Professor Guadagno) gave me the opportunity to reflect about the quantitative dimension of the catastrophes in terms of hazards and economic impacts on the affected community. Professor Ietto and Professor Iovine from the University of Cosenza gave me all the information about the geological patterns of the resettlement in Cerketo, while architect Pizzo and engineer Basta guided me through all the structural elements of the reconstruction processes.

#### *d. Authorities*

The label “Authorities” has been applied to all the governmental institutions working on the territory at local, regional and national levels, which have been implicated in the preventive and post-catastrophe management of the territory and of the affected population, as showed in **Table 9**, page 129.

At local level, the Watershed Authority (AdB) offered me the possibility to historically analyse the physical features of the area affected by the Sarno landslide and its long-term consequences on the local landscape. The meeting with three Council Members in the case of Cerezeto offered me an interesting perspective about the resettlement and management of the catastrophe.

At regional level, the Campania Regional Agency for Soil Defence (ARCADIS) data helped me in the reconstruction of the events of the Sarno landslide. The Civil Protection Agency for the Campania Region gave me the opportunity to interview three volunteers who worked in the post-catastrophe recovery.

At national level, the meeting with four representatives of the National Civil Protection gave me interesting insights in the macro-level motivations of the resettlement and the reasons to allow spontaneous mobility in the two cases.

**Table 9: Sarno and Cerezeto’s authorities sample**

<b>Authorities</b>	<b>Sarno</b>		<b>Cerezeto</b>	
<b>Local Authorities</b>	<i>Interviewees</i>	<i>Name</i>	<i>Interviewees</i>	<i>Name</i>
	1	AdB	3	Council Members
<b>Regional Authorities</b>	3	Civil Protection Campania	0	
	2	ARCADIS		
<b>National Authorities</b>	4	Protezione Civile Nazionale	4	Protezione Civile Nazionale
<b>Total</b>	<b>10</b>		<b>7</b>	

*Source: Personal elaboration.*

### *The methods and the data collected according to the category*

Experts, associations and authorities were contacted according to their relevance in the recovery, preventive, management action in the two contexts of Sarno and Cerzeto. The interviews and the data collection were realised in three ways: in person, via phone or e-mails.

Concerning the institutions/experts/associations questionnaire, the same specific questions have been asked (16), after some general inquiry about the kind and status of the institution to which the interviewees belong to (4), as showed in **Annex II**, page 387.

Firstly, the collected information from the associations mostly concerns the interaction between the two communities and the environment before and after the catastrophes; they also concern the claiming against the political actions or compensations in the aftermath of the landslides displacements induced.

Secondly, through the interviews with the experts I was able to better contextualise the two catastrophes and examine their impacts from the economic, and social point of view. The different perspectives and approaches adopted by experts in different disciplines have made the interviews extremely enriching. The scientific work they produced on the catastrophe allowed the integration of the interviews with other elements of analysis.

Thirdly, I met different authorities in order to understand the political preventive and ex-post responses to the landslides and their induced displacements. The institutions' point of view has been extremely interesting mostly to understand the political issues behind the implication/non-implication, action/non-action of the State in the aftermath of the landslides.

Finally, I decided to focus on the experience of few people (11 for each exploratory fieldwork) and experiment with them different tools of research (as summarized in the **Table 10**, page 132). I have chosen these people because they personally experienced the catastrophe and would have a deeper insight about the related mobility. The people to be interviewed have mostly been chosen thanks to the help of the local associations “Cavallerizzo Vive<sup>83</sup>” in Cerzeto and “Rinascere” in Sarno; other people have been directly met in the field.

---

<sup>83</sup> Referred to the other name of Cerzeto.

Firstly, I used non-structured interviews that lasted almost two hours and assumed a lengthy conversational model to analyse the people's construction of reality, and reconstruction of the memory and the past.

Secondly, I performed some direct observations within their families during their daily life to understand their behaviours and their perceptions about the physical environment after the catastrophe. According to Mulhall (2002: 307), in fact, the observation “*provides insight into interactions between [...] groups; illustrates the whole picture; captures context/process; informs about the influence of the physical environment.*”

Thirdly, I used the transect-walk, where the interviewee actors walking with me showed the importance of their space and pointed the main places in their mental map: “*A Transect is used to explore the spatial dimensions of people's realities. It provides a cross-sectional representation [...] zones and their comparison against certain parameters including topography, land type, land usage, ownership, access, soil type, soil fertility, vegetation, crops, problems, opportunities and solutions*” (Kumar, 2002: 100).

Finally, I decided to ask them to draw the consequences of the catastrophes on their mobility in order to understand in which way people memorialise the catastrophe. This methodology has been adopted in order to deeply understand the self-representation of the people affected by the catastrophe and its mobility respectively 7 and 14 year after the event. The objective of this approach is to understand how people memorialise an event egging on the intimate and personal memories (Abric, 1994) and how these memories are influenced by the collective social representations (Doise, 1985).

After having presented the sample and the main features of the empirical fieldwork research process I can now approach the analysis of the two chosen cases, Sarno and Cerzeto, their context, the landslides and the mobility they produced.

**Table 10: Phases of the interaction with the “Individuals”**

Phase	Collected data	Time	Tool	Target
I	<i>Construction of reality; Reconstruction of the memory and the past.</i>	2 hours	Non-structured interviews	The interviewee and their families
II	<i>Interaction within the families after the event.</i>	From 5 hours to 3 days	Direct observation	The interview families
III	<i>Spatial dimensions of people's realities.</i>	From 2 to 3 hours	Transect walk	The interviewee
IV	<i>Perception of the catastrophe and mobility.</i>	15 minutes	Drawings	The interviewee

*Source: Personal elaboration.*

## **III.2 The two landslides and their consequent mobility**

### **Introduction**

In order to have a deeper understanding of the phenomenon of environmentally induced displacement in a Global North country and its related discourses and perceptions, it is now interesting to recognise the presence of environmentally induced displaced communities in Italy, the causes of their mobility and the strategies adopted to face the landslides on the short, medium and long-term.

After having presented the context and the catastrophe, I investigate about the forms of mobility triggered by the landslides. This analysis allows a deeper knowledge about the environmentally induced displacement phenomenon in Italy, considering the case of Sarno and the case of Cerzeto.

### **III.2.a The backgrounds and the catastrophic events**

#### ***The contexts***

The contexts in which the two landslides in 1998 and in 2005 occurred are presented in this chapter. This study is done considering similar elements of analysis in order to have a comparative dimension of the two illustrative fieldworks.

#### ***a. In Sarno***

The Sarno landslide in 1998 (the red spot in **Map 4**, page 134) has to be considered in the light of the previous experiences of hydrogeological hazard in Campania Region, where catastrophic flow slides and debris flows in pyroclastic soils are usual.

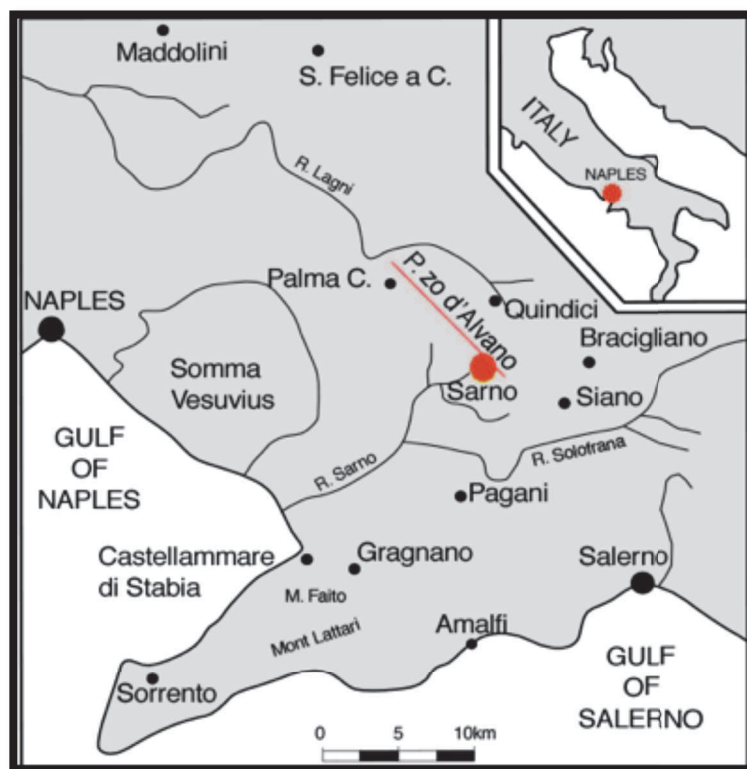
Sarno is located in a part of Western Southern Italy that has a typical Mediterranean climate, characterised by hot and dry summers and warm and wet winters and 30-60



mm of precipitation in a single day are not atypical (Del Prete, Guadagno and Hawkins, 1998: 117).

With the end of the agricultural system that was very flourishing in the past, the town has been affected by unemployment, most of all for young, disabled and women. The most part of the local work activities are submerged or black low-skilled works, low-paid and low-protected (Assessorato al Lavoro, 2009). The average income *per capita* is about 61% of the Italian average and for this reason, Sarno, with all Campania Region, is part, until 2013 of the Convergence Objectives of the EU (D'Alisa, 2010) also because of a low level of research and development of local firms. The criminal and the micro-criminal activity in the area are very relevant and, for years, these lands have been at the core of the illegal waste and toxic waste traffic economy (Legambiente, 1998).

**Map 4: Location map of Sarno, affected by the May 1998 event**



*Source: Del Prete, Guadagno and Hawkins (1998: 114).*

The urban expansion is in part illegal<sup>84</sup> and several times the Municipal Council has been undone because of criminal<sup>85</sup> infiltrations. Its extension is of 39.95 km<sup>2</sup> and it has 31,449 inhabitants (Comune di Sarno website, 2012).

Being an area prevalently dominated by emigration flows towards big Italian Southern and Northern cities (Naples, Rome, Milan, and Turin), towards USA and Argentina, the Agro-Nocerino-Sarnese from the '80s started to be an area of destination of immigration where a significative number of Cape Verdeans, Filipinos and Sri-Lankan women started to occupy a slice of the care and domestic sector. In 1989 are registered 3,000-4,000 presences of immigrants in the area (Istat, 2010), most of all being African (Morocco, Tunisia, Algeria and Senegal) alone young men who dedicated to agriculture, food processing, and building sectors.

During the '90s the immigration trends register a huge flow from Oriental Europe (Ukrainians, Rumanians – among them nomadic community of Romani and Sinti – and Polishes). Nowadays the immigrated population is about 3.5% of the total with a prevalence of Moroccans and Ukrainians (according to 2010 Comuni-italiani.it data), employed in the seasonal food processing, agricultural and building sectors. In the area there is an irregular immigration by 27% over the total and the activities that concern immigrant communities are not qualified and unskilled (Orientale-Caputo, 2007).

At the end of the '90s, the immigrant presence was more illegal and sporadic in the area. This is why, unfortunately, during the catastrophe their number and the problems they faced remained completely invisible and during my fieldwork I was not able to collect data about their presence and about the damages they suffered.

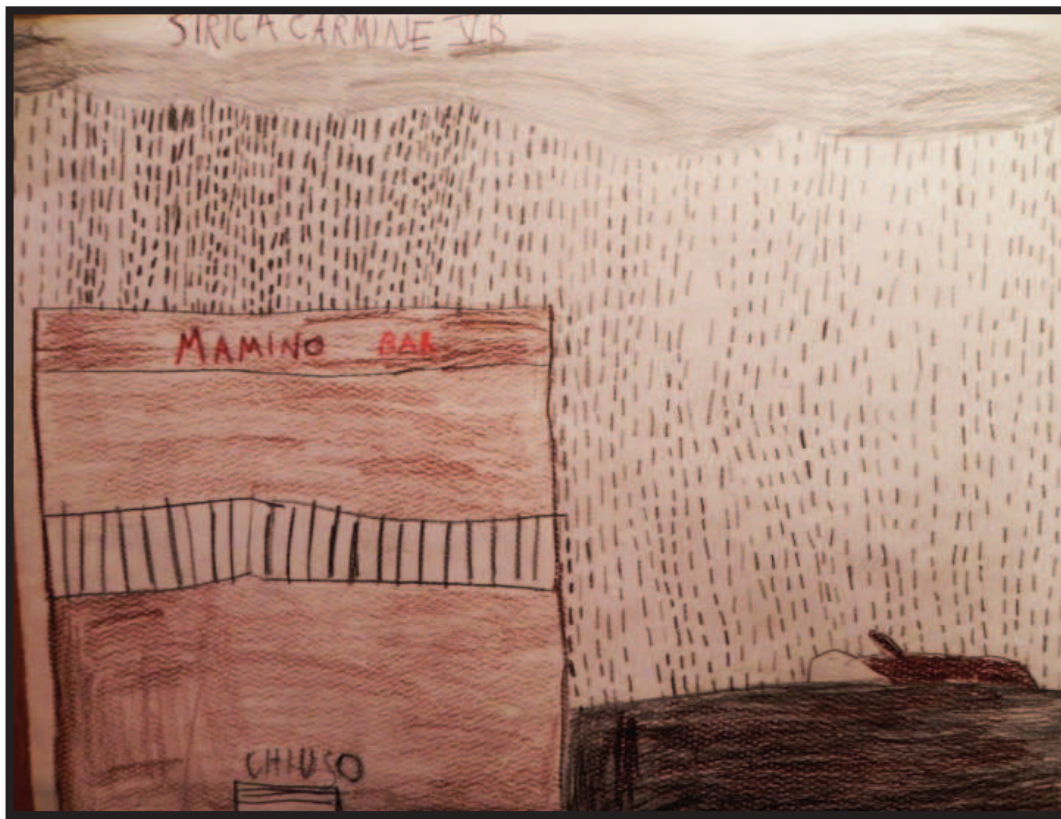
The urban expansion has mostly been centred towards the base of the Pizzo D'Alvano Mountain, without any conscience about the risk; curiously, the toponym "Alvano" has Indo-European roots and means "get moving" (D'Alisa, 2010) a warning for the catastrophic event, which happened in 1998 caused by a prolonged rain causing damages to people and goods. In **Drawing 1**, page 136 the causality rain-death is glowing and the bar "*chiuso*," "closed" is a good representation of the economic long-term consequences.

---

<sup>84</sup> 20% of the buildings in Campania Region are illegal (Legambiente, 1998).

<sup>85</sup> Camorra is not a single criminal organization, but a collection of groups, which fight each other for the control of criminal activities in Naples area. Also in Sarno's reconstruction in the aftermath of the catastrophe, the Camorra has played an important role as demonstrated by Tribunal sentences.

**Drawing 1: The rain**



*Personal photo from the “5<sup>th</sup> of May” exhibition.*

*b. In Cerzeto*

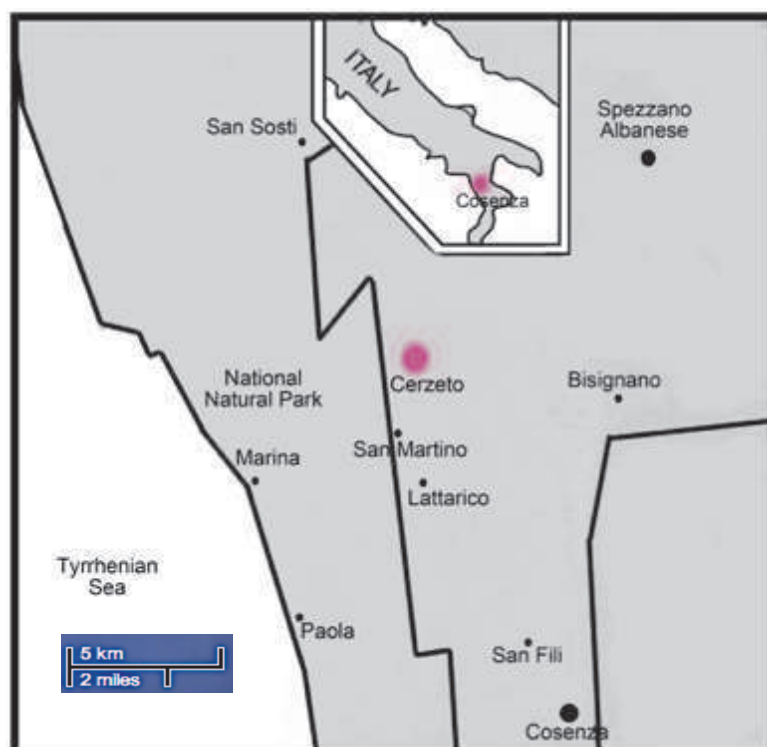
The rural Municipality of Cerzeto<sup>86</sup> (the pink spot in **Map 5**, page 137) is located on the territory of the Cosenza Province, in Calabria Region. Calabria is one of the most vulnerable Regions of the Italian peninsula. Actually, according to the data published by the Environmental Ministry, the National Civil Protection and Legambiente (2010) all the Calabria municipalities (in the number of 409) are considered exposed to hydrogeological risk for both flood and landslides.

This huge environmental hazard vulnerability found its roots not only in geomorphological territorial structure, but also in local territorial unsustainable use and in land-use mismanagement (CAMIlab, 2008: 8).

---

<sup>86</sup> The appellation “Cierzeto,” the name of the municipality, is often confused with the name of the district more damaged during the landslide “Cavallerizzo.” I will generally use the first name, but the media, the interviewed people use indifferently both names.

**Map 5: Geo-localisation of Cerzeto, affected by the March 2005 event**



*Source: Personal elaboration.*

In this sense, it is interesting to notice the name of the main hit road during the Cerzeto landslide: “Via degli Emigrati,” namely Emigrates’ Road, built between 1970 and 1980 with the emigrate remittances, showed in the following **Photo 2**.

**Photo 2: The Emigrates’ Road after the landslide**



*Source: Personal photo (Cierzeto, 2012).*

The floods and the landslides that systematically jeopardise the Calabria territory are huge obstacles to the territorial development and deeply affect the social security and the quality of life in the area<sup>87</sup>. The town coexisted with hydrogeological natural hazard (given by the San Fili – Cerzeto – San Marco Geologic Fault, on which Cerzeto is built) and meteorological extreme events (severe rainfalls and snows). It became more and more vulnerable to landslides catastrophes because of a higher pressure of the new buildings on the fault. Since 1635, landslides are recoded in the area with limited damages to the urban settlement, but from the '70s, the incidences of hazardous events become very relevant (Ietto, 1979; Guerricchio, 1998 and Ietto, 2010).

The incidence of poverty is about 26.2% according to Istat, where in northern regions it reaches 4.9% and the level of high-education is very low (Istat website, 2012). This is why the Region is part of the “Calabria Regional Operational Programme,” programme under the European Convergence Objective, co-funded by the European Regional Development Fund. This programme focuses on the improvement the quality of and accessibility to education and training in remote areas in Calabria, but also to life quality through the development of internal and external accessibility of the region.

The old settlement of Cerzeto, which name came from Latin meaning “forest oak” was funded, as other Municipalities in the area, by Albanian migrants, namely the Arbëreshë, flying in 1478 from the Ottomans who were conquering in the Balkans and following the death of the Albanian national hero, the Kruja Prince George Kastrioti Skanderberg. The loyal followers of George (belonging to the League of Lezhë, constituted in 1444) were welcomed by the Kingdom of Naples with which there were strong relations: in 1272, Charles of Anjou accepted the title “King of Albania” and later, Philip I of Taranto was called “Regni Albaniae Dominus” (Giura, 2010). In 1461, George Kastrioti Skanderberg helped Ferdinand I to repress the riots started by the Barons in the Kingdom of Naples.

This is why this Municipality still conserves a deep Albanian culture, customs, art, gastronomy and a deep traditional religion – the Eastern Rite Greek-Byzantine, even if the population is administratively Italian. The welcome road sign (see **Photo 3**, page 139) shows a woman dressed in the traditional dress, the old church of Cerzeto, traditional food (cheese – *Udhose* or *Gjizë* – and sausages – *Likëngë*) and an old milling machine

---

<sup>87</sup> In the Bourbon Royal Archive in Naples, it is possible to find all the Naples Kingdom hydrogeological maps: one can see that during the centuries, landslides phenomena have developed always in the same areas.



stilly jealousy preserved. The bread (*bukë*), in fact, is prepared with local flour and has a round shape. It is cooked in antique firewood ovens called *Tandoori*.

It is interesting to notice the double-language (Albanian-Italian) but also the presence of all the elements that distinguish the Arbëreshë culture from the Italian one. The woman dressed with the typical dress constituted by the Xhipuni – the pink skirt – and the Keza in her hair, but also the presence of the orthodox church, are the symbol of an identity claim also because there is no official political, administrative or cultural structure which represents the Arbëresh community. Only through the representation of these cultural symbols, one can notice a sort of idealisation of their culture and the romantic attachment with their “nation,” called *Arbëria* (the name of the Principality of Arbanon in Albania).

It is finally possible to see, in the road sign, the old settlement, imerged in the oak forest with the typical houses. The urbanisation of the town was characterised by the typical structure of *gjitonje*, a typical habitat-unit, namely little squares to which flow the little roads of the village and in which all the life of the people that live in the ward is centred. There is an old Arbëreshë proverb that says “*gjitonje më se gjiri*,” meaning, “You are closer to your neighbours than to your relatives.”

**Photo 3: The Municipality welcome road sign**



*Source: Personal photo (Certzeto, 2012).*

Sarno and Cerzeto seem to present similar pattern of economic and social vulnerability. Unemployment, criminal activities and territorial mismanagement are present in both contexts. The presence of vulnerable groups (illegal immigrants for Sarno and the Albanian minority in Cerzeto) makes the two cases very similar. Nevertheless, the urban context and the rural one, the numbers of affected people and the different survival strategies, on the one hand makes impossible the comparison between the two examples and on the other hand gives more value to the sum of the two cases to provide empirical evidence. This is because the causes and the impacts of the two landslides occurred in a 7-year delay had different implications, different consequences and a different political approach, as showed in the next sections.

### ***The landslides***

#### *a. In Sarno*

On May the 5<sup>th</sup>, 1998 more than 100 slides, classified as debris avalanches and debris flows (Hungar et al., 2001) came down from Pizzo d'Alvano mountain between 2.00 p.m. and 12.00 p.m. of the same date, due to heavy and prolonged rainfall during the previous hours cutting in half the town of Sarno (Dipartimento della Protezione Civile website, 2012), as shown in **Photo 4**, page 141.

Many slides developed into debris flows hitting the urban areas of five small towns at the toe of the Pizzo d'Alvano Mountain: Sarno, Siano, Quindici and Bracigliano. I decided to analyse the case of Sarno because it was the more pertinent in my analysis if considering environmentally induced displacement in term of affected population.



**Photo 4: Area of impact of the mudflow in Sarno on May the 5<sup>th</sup> 1998**



*Source: Protezione Civile, in Brondi and Salvatori (2003: 7).*

The **Drawing 2**, page 142 describes in detail the landslide dynamics. The rain, the mountains, the people seeking help in the houses “*Aiuto, Aiuto*”, the people swamping in the mud represent all the elements of this landslide that turned in a catastrophe provoking victims and displaced.

**Drawing 2: The landslide**

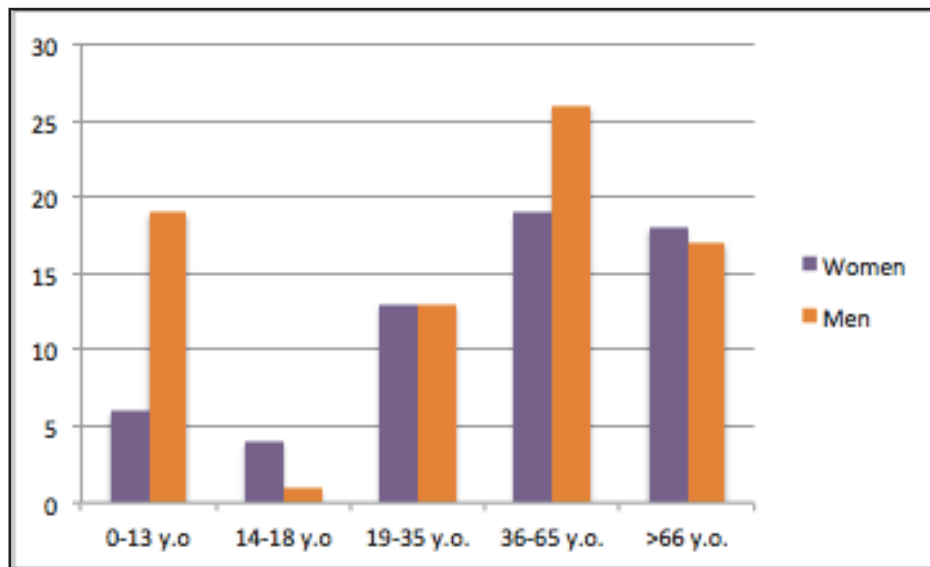


*Personal photo from the "5<sup>th</sup> of May" exhibition.*

During the landslide, 137 people died and 115 were injured. 25 people were under 13 y.o., 5 between 14 and 18 y.o., 26 between 19-35 y.o., 46 between 36-65 y.o., and 35 were more than 66 y.o. (Caritas Diocesana, 1999), as summarized in **Graph 3**, page 143.

76 of them were men and 61 women: the social and psychological implication provoked by the loss of members of families and the economic consequences caused by this loss is later discussed in order to better understand the deep connections between memories and space. In this sum, the nomads are not considered, because their numbers do not figured in the administrative registers of the city.

**Graph 3: Number of victims in Sarno by age and sex**

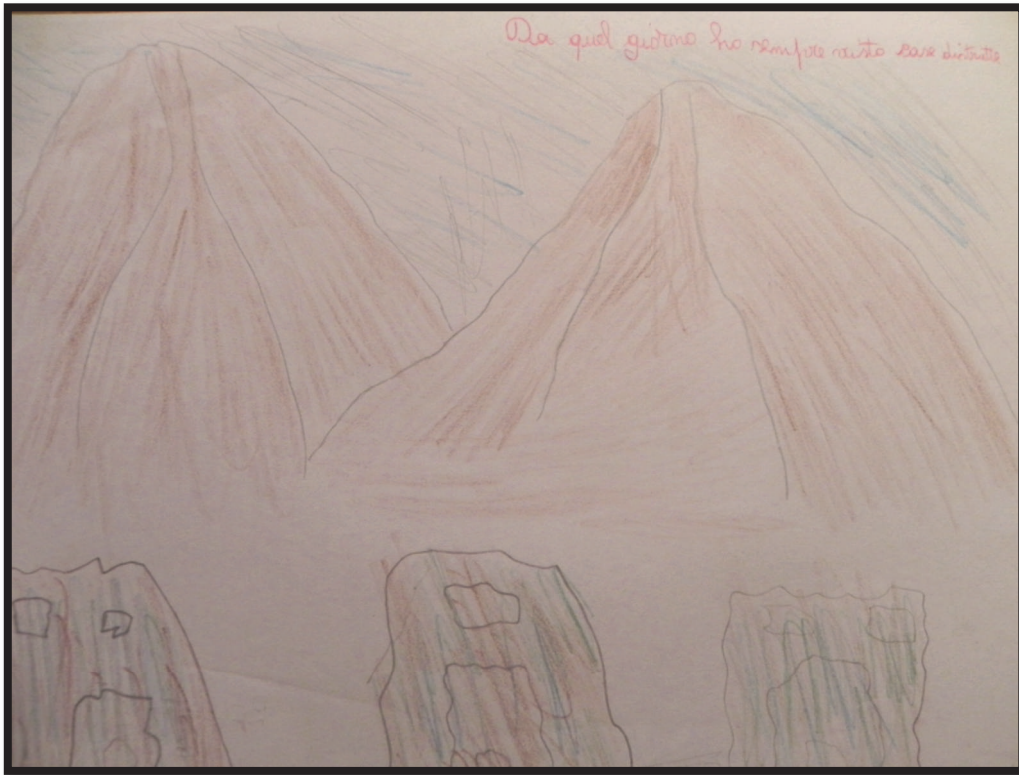


*Source: Personal elaboration from data of Caritas Diocesana (1999).*

Over 600 houses were destroyed or highly damaged, leaving more than 1,210 people homeless and provoking 33 million € of damages (D’Alisa, 2010) to public and private buildings and infrastructures. *“According to the PCN data in Sarno 126 buildings were completely destroyed, 195 were inaccessible, 66 partially inaccessible and 54 accessible in the most affected area and the economic losses have been of 19.2 million € for buildings and 6.4 million € for the productive sector”* (Catalano, 2000: 9).

These figures do not include the economic implications related to the event such as the difficulties to find or restart the work because of the loss of relatives or friends (bread-winners), problems caused by body injuries, loss and damages to the house, and loss of work: *“[on a sample of 248 people], 48% of persons had economic difficulties, 29% problems at work (temporary or definitive loss), and 32% families difficulties such as quarrels”* (in Brondi and Salvatori; 2003: 15). On the children **Drawing 3**, page 144 that shows the mountains and three ruined houses- one can read, *“Since that day I have always seen destroyed houses”*, clearly showing the long-term impact of the landslide.

### Drawing 3: The ruins



*Personal photo from the “5<sup>th</sup> of May” exhibition.*

#### *b. In Cerzeto*

In the morning of March, 7<sup>th</sup>, 2005, after a period of prolonged rainfall (645 mm in 90 days, about 72% of the mean annual precipitation), part of Cerzeto town was severely damaged by a vast complex landslide (700 m long), that belonged to a wider slope movements (PC website, 2005), that provoked the collapse of part of the district of Cavallerizzo (that counts about 590 habitants, but were there are only 310 residents because of emigration; see **Photo 5**, page 145).

The event has been interpreted as an episode of a long deformation recorded in the area since the past. Several buildings (more than 30) were damaged principally on the Emigrants’ Road and the Provincial Highway n. 19, that links Cerzeto to the Highway A3 (from Salerno to Reggio Calabria) were completely destroyed, such as the aqueduct Abatemarco connected to Cosenza, and almost 310 persons forced to be evacuated in nearby district and villages. “*The evacuation has been an example for*



*all the other evacuations in the future: a perfect mixt between communication and efficiency”, as one of the representative of the PC claims.*

The monitoring system controlled by the University of Florence Research Centre, since 1998, the Protezione Civile Nazionale and the Protezione Civile of Calabria, has permitted an early warning and, since the 1<sup>st</sup> of May, the population has been alerted to avoid any fatal injury.

For this reason not only the population living in the more undamaged area, but all the Cavallerizzo district inhabitants were evacuated after the declaration of the Presidenza del Consiglio dei Ministri, of the State of Emergency n. 3427 of April 29<sup>th</sup>, 2005, *“First interventions to face the damages caused by the hydrogeological and landslide events happened in Cerzeto Municipality territory”* (still active in 2013) and the Head of the National Civil Protection is mentioned Special Commissioner in the area and the one that has the responsibility to individuate a new site for the new settlement.

**Photo 5: The Cerzeto landslide in the Cavallerizzo district**



*Source: PC website (2005).*

Despite the case of Sarno, the early-warning system in Cerzeto avoided the human losses consequent to the landslide. For the first case, in fact it is possible to consider the damages provoked by the landslide, while, for the second there are no data concerning the real entity of the material losses.

As I will show, the fact that no people have been injured in Cerzeto is one of the most instrumentalised factors in the political implication of the landslide –from the rescues to the long-term response by media and institutional discourse. By contrary, the great numbers of victims in Sarno, will completely shape the discourse about the landslide and its consequent mobility.

### ***The rescues***

#### *a. In Sarno*

During the catastrophe, as pointed out by a 2003 report of the European Commission on “Lessons learnt from landslides disasters in Europe” (EC, 2003), any emergency plan to face the catastrophes was applied and that inhibited any interventions or preliminary step to rescue the population (even if Sarno had a Civil Protection intervention emergency plan since 1992). Nevertheless, in the hours that followed the catastrophe, to face the emergency a Coordination Centre, Centro Operativo Misto (COM), constituted by Firemen, volunteers from Campania and other Regions, Army, Police forces, Forest corps, Italian Red Cross, Italian Caritas and Italian National Roads Division (ANAS), started to put in place different actions to rescue the population organised by the Mayor, as one can notice from **Table 11**, page 147.

Analysing the table it is possible to observe that if in the first days that followed the catastrophe less than 3,000 man where involved in the rescues (with only 192 means, namely excavators and other tools to dig in the mud), 17 days after the numbers had increased enormously, showing a slowness in the rescues, as testified by one of the interviewed representative of the PC “*The rescues in Sarno were slow in the first day, but then, with the involvement of the Civil Protection and the volunteers they became very productive*”.

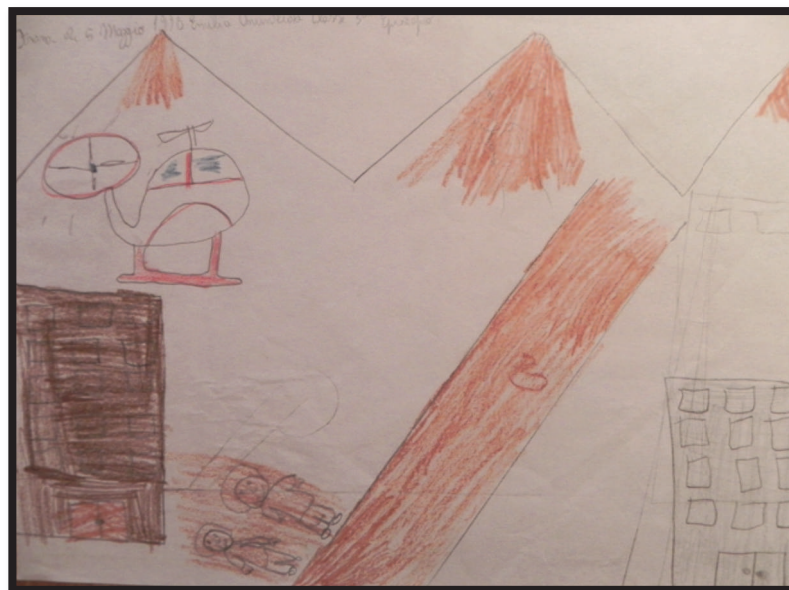
**Table 11: Operational bodies, men and means involved in the response action from 2 to 17 days after the landslide**

Operational Bodies	7 May 1998 20.00 hrs		22 May 1998 8.00 hrs	
	Men	Means	Men	Means
Firemen	1,000	53	1,139	638
Volunteers	600	6	1,039	211
Army	466	60	1,611	229
Police Forces	746	39	890	309
National Forest Corps	108	20	40	13
Italian Red Cross	50	14	300	47
National Roads Department (ANAS)	0	0	24	23
<b>TOTAL</b>	<b>2,970</b>	<b>192</b>	<b>5,043</b>	<b>1,470</b>

*Source: Brondi and Salvatori (2003: 11).*

The case of Sarno shows how a lack of legislative frame concerning the prevention and the territorial mismanagement contributed to the landslide. Moreover, a lack of centralisation of rescues resulted in a negative impact on populations. In the following children **Drawing 4**, it is possible to recognise the central role played by the helicopters useful to save people in the houses inaccessible because of the mud. The mountains and the mud dominate the drawing in their enormous and incomprehensible brutality.

**Drawing 4: The rescues**



*Personal photo from the “5<sup>th</sup> of May” exhibition.*



### *b. In Cerzeto*

Even if there are no protocols about the intervention and the evacuation of the district, people were firstly obliged to move in other villages to relatives and friends, or in the primary school of Cerzeto and other structures in the short-term, to rent houses or be hosted by families, and then to be displaced in a New Town.

The lack of concerted policies between local and national guidelines, justified by the Protezione Civile Nazionale because of the presence of the early-warning system reports (controlled by the University of Florence), created unclarity around the two phases of evacuation and displacement, highly abused for economic and political purpose, and electoral demagogy. Because of pronounced political exploitation of the catastrophe, it has been very hard to have a unique vision about the event and about the mobility that it caused. The members of the association “Cavallerizzo vive” say, *“This decision is illegal, and illegal is the reconstruction. Nobody asked to us what we would like to do. It was just a political decision.”*

## **III.2.b The landslide induced mobility in Sarno**

### ***The short-term displacement: fleeing or staying?***

With a total of 4,920 evacuees (as called in the NCP in 1998), the recovery plan in Sarno was organised, according to the 1998 Ordinance n. 2787 made by the President of the Council of Ministers, presenting three different possibilities for accommodation, detailed in the **Table 12**, page 148, considered by Legambiente (1999) not sufficient and lacking:

1. *“Autonoma sistemazione”*, “‘Autonomous’ accommodation: relatives or friends;
2. *“Accoglinfamiglia,”* “Receive-into-a-family” (a family twinning with other families not affected by the catastrophe);
3. Accommodation in reception centres (such as schools or Churches).

**Table 12: People affected by evacuation and accommodation plans for the first weeks**

People to be evacuated		Autonomous accommodation		Accoglinfamiglia Project		Reception Centres	
<i>People</i>	<i>Families</i>	<i>People</i>	<i>Families</i>	<i>People</i>	<i>Families</i>	<i>People</i>	<i>Families</i>
<b>4,303</b>	<b>1,312</b>	<b>732</b>	<b>230</b>	<b>2,403</b>	<b>722</b>	<b>1,168</b>	<b>360</b>

*Source: Brondi and Salvatori (2003: 15)*

*a. The “autonomous” accommodation*

The autonomous accommodation concerned people that already had a solid network, or part of the family or relatives somewhere else (mostly in the Municipalities of S. Marzano, Striano, San Valentino Torio, Poggiomarino, Nocera Inferiore, and Scafati, mentioned in the **Map 6** page 152). This option has been followed by the families with a developed family network, or a quite important economic capital. 230 families adopted this strategy, the minority of the families in Sarno because the relatives or the friends were often neighbours.

*b. The “Accoglinfamiglia” project*

The “Accoglinfamiglia” project was supported by the Caritas Diocesiana of Sarno and Nocera and planned by the proposition Prot. 23/ 54.20.2/GAB made by Salerno Prefect started in the August 1998. During August in the Municipality were prepared the twinning and then in September the project effectively, through the programme “*R...estate a Sarno*”, “Remaining in Sarno in the summer”.

The importance of this project stands in the importance of sharing responsibilities of the catastrophe and promoting solidarity within a community and with neighbour towns. 900 families, (almost 70% over the total) of which 30 disabled people have been twinned with other families that received an economic contribution, by National Civil Protection (almost 15 € by day and per person received) to help other families in order to limit the families in the Reception Centres or in other places.

The days that followed the catastrophe were crucial in the sense that not only all the local population but also foreign volunteers were involved in the search of survivors

between the ruins. *“It was just horrible to dig in the ruins to seek bodies,”* reports one of the interviewee volunteers. *“Night and day you dug between the ruins. You were tired but you continued. There were trapped people,”* continues another one. The high number of volunteers who participated in the rescues shows that the solidarity in Sarno has been very significant. The program “Accoglinfamiglia”, supported by the Caritas local offices of Sarno and Nocera, testifies an important social cohesion that can be opposed to the complete lack of coordination of the institutional answer after the landslide, underlining the importance of informal networking. 722 families, in fact, were involved in the program, the majority of the displaced.

### *c. The reception centres*

The “centri di accoglienza”, the reception centres, were organised by Caritas of Nocera and Sarno and other Catholic Associations (Azione Cattolica and local parish groups), showing how in this region the activity of religious associations even in emergency and post-traumatic periods is significant and how catholic associations represent a buffer institution in the Italian system. The total number of people displaced in the reception centres provided by Caritas, totally differs from the enumeration done by Brondi and Salvatori (2003) (see **Table 13**, page 151). This is because the researchers considered all the people who were displaced in the centres in the aftermath of the landslide, while the Caritas focuses on the medium-term (10 months) effective reception as two of the interviewees testify. *“We stayed in De Amicis then we moved to Lavorate”* (D., Sarno). *“During the first days we stayed in the camp, than I moved to Siano at some relatives”* (F., Sarno).

The precarious conditions of the camps have also been underlined during the interviews, *“The camp was horrible. I thought I was a war refugee.”* This deposition reveals the intuition to be a “refugee” or a “deplacee.” On the contrary, the cultural attitude to consider the refugee as the victims of the war, underlines the complete lack of recognition in the Italian public opinion of the concept “environmental refugee”/ “climate refugee”/ “environmentally induced displacement.” Accordingly, a very vulnerable position is pointed out by H., (Sarno).

*“The volunteers were fantastic but we badly ate and the sanitary condition very precarious, also because of the summer”* (E., Sarno). These testimonies highlight the unpreparedness of the institutions about rescues and about post-recovery. *“In the case of Sarno it has been very*

*difficult to have a coordinate approach to the catastrophe, because of the lack of communication between local authorities,”* affirms one of the representatives of the National Civil Protection.

**Table 13: People in Sarno recovered in Reception Centres**

Centre	Volunteers	Displaced	0-3 y.o.	4-14 y.o.	15-65 y. o.	>65 y.o.	Disabled	Families
<i>De Amicis</i>	44	243	10	35	188	10	2	57
<i>Porcola</i>	9	87	0	15	68	4	0	17
<i>Serrazzeta</i>	38	126	3	15	104	4	0	18
<i>S. Maria delle Grazie</i>	49	21	2	4	14	1	0	5
<b>TOT</b>	<b>140</b>	<b>477</b>	<b>15</b>	<b>69</b>	<b>374</b>	<b>19</b>	<b>2</b>	<b>97</b>

*Source: Caritas (2003).*

Children, disabled (because of a lack of adapted structures) and the nomads, according to the institutional and NGOs/Association reports (Caritas, 1999 and Caritas, 2003), were the most affected people during the period of the recovery, the temporal and the long-term mobility. For the following 10 months, in the “centri di accoglienza” (the green circles in the **Map 6**, page 153), children were accompanied by boy-scouts, catholic associations and international NGOs (such as “Save the children”).

These associations provided spare time activities and schooling for children. The institutions were in fact very worried about the increase of deviance among the young people: because of the catastrophes, all the schools had been closed and there are few spaces to socialise (Caritas Diocesiana, 1999: 177). The nomads (Rom and Sinti), present in the hit areas most of all from the camps of Pioppazze (the blue rhombus in the **Map 6**, page 153), not well integrated in the social context before the catastrophe, had many problems during the evacuation and the resettlements phases. By contrary, there are no data about the victims among this community and their displacement in the medium and the long term. This is because in Italy only in 1999 the nomads (especially Rom and Sinti) have been recognised with a specific law for the protection of these minorities<sup>88</sup>.

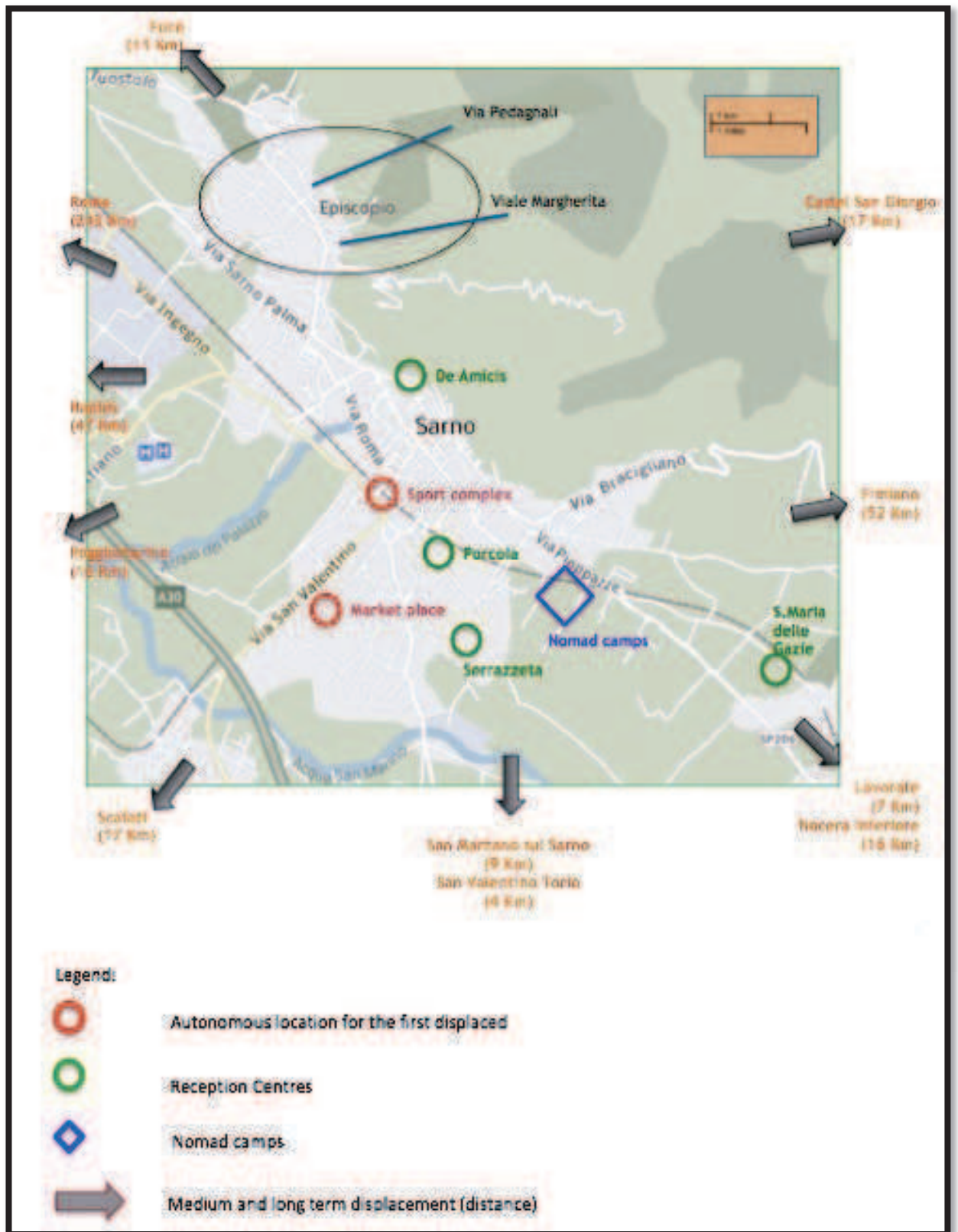
<sup>88</sup> Law 482/99, “*Norme in materia di tutela delle minoranze linguistiche storiche*”.

The greater part of them was received in the De Amicis school centre: in this case, several times the Police had to intervene to calm down the hard relation between the nomads and the “native” population, stressed by the catastrophe. Their camp was completely destroyed by the mud, because of a lack of administrative protection for them and they did not receive economic or social assistance for a new resettlement. A part of them, according to the interviewees, went away in other areas in the region. The huge displacements triggered by the catastrophes can be a useful example to underline the link between environmental degradation and human mobility, immobility and vulnerability in this context.

The mobility that affected Sarno population can be analysed considering three different periods: the short-term, the medium-term, and the long-term. The choice of considering the short, the medium, and long-term retraces the different patterns of mobility not only considering the space (the distance from the previous settlement), but also the time.

The presentation of the different patterns of mobility is useful to give more concreteness to the examination of the environmentally induced displacement phenomenon, its perception, its politicisation and its representation in a Global North country, and, specifically, in Italy.

Map 6: Thesis' relevant places in Sarno



Source: Personal elaboration from TuttoCittà (2013).



The first “autonomous” displaced by the landslides arrived in the peripheral zone of Sarno, such as the sport city centre (then transformed in mortuary) and in the market place – the red circles in the **Map 6**, page 153 –, during the night. In those two places, all the helicopters working to track out the missing people started to deposit the survivors (Caritas, 1999: 133).

When I asked, “*What did you do when the catastrophe occurred?*” people in Sarno generally fled away “*Flee away to be safe, fleeing even if you are not sure to find your relatives any more*” (C., Sarno) because they were afraid about the collapsing houses, or because the houses and the streets were filled with mud. The following children **Drawing 5** shows the landslide and a man shouting “*Scappate!*”, “Run away!”

**Drawing 5: The getaway**



*Personal photo from the “5<sup>th</sup> of May” exposition.*

From the observation of the strategies adopted in the case of Sarno by the interviewees, the mobility seems to be privileged by people that have the possibility to



move (and that not have to care about other people. Families, who remained trapped in their houses in fact, had to stay with elderly or ill people “*We had my grandfather in the bed, we could not move, we waited the helicopters on the roof, until the next morning*” (B., Sarno).

From the following **Table 14** it is possible to figure out the different strategies adopted by the interviewees according to their degree of mobility.

**Table 14: Degree of mobility/immobility in the aftermath of the landslide.**

The mobility/ immobility degree	Sex	Age	Short-term
Voluntary immobility	M (A)	40	<i>I remained to help.</i>
	M (F)	50	<i>I remained to help.</i>
	M (I)	67	<i>I remained to help.</i>
Forced immobility	F (G)	62	<i>I could not move because of my disabled mother.</i>
	F (B)	27	<i>With my mother and my sister, we could not move because of my grandmother who was sick.</i>
	F (J)	43	<i>With my mother, we could not move because of my grandparents who were sick.</i>
Mobility as a last resort	F (C)	60	<i>I ran away with the children in the Market place.</i>
	F (D)	65	<i>I ran away in the Market place.</i>
	F (H)	65	<i>I ran away with the children in the Market place.</i>
	M (E)	65	<i>I ran away to the rail station.</i>
	M (K)	31	<i>I ran away with other children and my aunt</i>

*Source: Personal elaboration.*

In the short-term, in fact, the individual strategies are often connected with the primary needs of the families: three women claim that they could not move “*because of the old people or the ill people in their families*” (B., Sarno). “*My parents were old and ill, how could I leave them?*” (G., Sarno). They experimented the involuntary immobility, caused by other vulnerability factors, related to their families and to the fact that, “*Being women they*

*had to take care of the old or ill people*” (B., Sarno). *“We waited for the helicopters two days on the roof of the house”* (J., Sarno). Three other women point out that they had to run away with the children (their own or relative’s children) to be safe and they took care of them in the first days after the landslide *“I met my aunt who told me: come with me, don’t worry!”* (K., Sarno).

Three men report that they did not move from the most hit areas because they *“had to help the others”* (A., Sarno). *“We took courage and with many risk, in the dark, we started to go to Viale Margherita, and then we walked in Via Casale completely destroyed and full of mud; there we took a pathway in the cultivated land and we arrived after one hour near to the Sport centre”* (C., Sarno).

Here we can see an important cultural element very interesting in the exploration of this traditional context: while the women are expected to take care of the families, the man has to help the others, the whole community. Only a single man and a single woman alone ran away, because they knew to have lost all the family: *“I ran away alone, in the dark trying to reach the station”* (F., Sarno). A woman told me *“The only thing that you do is run, even if you don’t know where to go. Even if you know that what you leave behind is lost for ever”* (H., Sarno).

### ***The medium-term displacement***

The medium-term is considered from one week to six months (**Table 15**, page 157): generally, the choices are made according to the distance from the work place of the breadwinner (often the father). *“Dad decided where we had to stay”* (B., Sarno). Four out of 11 family units camped in Sarno for almost 6 months; one in Foce’s camp for three months.

The profession before the catastrophe was extremely relevant. The people who had agricultural and pastoral activities, or even autonomous professions, could no work even more having lost all the working capital. The employed, or the workers, on the contrary, even if the working place had been destroyed had more social and financial assistance. *“My husband was a butcher and had several cattle breeding. I lost my husband. I lost my cows”* (D., Sarno). The working capital plays a crucial role in the displacement. People who had independent activities were more damaged if compared to the people having a depending work, because of the fact that in the depending work there is more social

protection, mostly because independent activities lack of assurance systems. When I asked, “*How did you choose your destination?*” people generally answer mentioning the hospitality given by other relatives or friends living in the nearby villages, or other territorial networks they had before the catastrophe. Other families were hosted by relatives in Lavorate (5 months), Foce (2 months), Scafati (3 and 6 months) and Castel San Giorgio (5 months). Only one family was hosted by some friends in Fimiano (6 months). The importance of networks of family and friend relations in the territory is very relevant for the social cohesion and the reciprocal help that people can give each other. The social capital, in fact, plays a very important role when a catastrophe occurs because people know that they can “*count on people that we trust*” (I., Sarno).

**Table 15: The medium-term displacement according to the mobilised network**

The displacement according to the mobilisation of networks	Sex	Age	Medium-term (1 week - 6 months)	Profession in 1998
<b>The Civil Protection camps in Sarno and in Foce</b>	<b>F (H)</b>	65	<i>With my family, we stayed in a camp in Sarno.</i>	Housewife
	<b>F (J)</b>	43	<i>Whit my family, we stayed in a camp in Sarno.</i>	Housewife
	<b>M (E)</b>	65	<i>I stayed in Foce (11 km far) in a camp (I lost all my family).</i>	Office manager
	<b>F (G)</b>	62	<i>I stayed in Foce (11 km far) in a camp (with my mother who is disabled).</i>	Housewife
<b>The importance of the family networks</b>	<b>F (D)</b>	65	<i>I went to Lavorate (7 km far) to some relatives (I lost all my family).</i>	Housewife
	<b>M (I)</b>	67	<i>I stayed in Foce (11 km far) with some relatives.</i>	Grocery store owner
	<b>M (A)</b>	40	<i>With my family, I moved to some relatives in Scafati (17 km far).</i>	Teacher
	<b>F (C)</b>	60	<i>With my family, I moved to some relatives in Scafati (17 km far).</i>	Teacher
	<b>M (F)</b>	50	<i>With my family, we went in Siano (17 km far) to some relatives.</i>	Teacher
	<b>M (K)</b>	31	<i>With my family, we went in Siano (17 km far) to some relatives.</i>	Student
<b>The importance of the social network</b>	<b>F (B)</b>	27	<i>With my family, we went to Castel San Giorgio (3 km far) to some friends.</i>	Student

*Source: Personal elaboration.*

Nevertheless, the solidarity shown by nearby villages or the Sarno districts not hit by the catastrophe has sometime been perceived only as charity “*People not concerned by the catastrophe wash their conscience; they gave us two old clothes and they thought they were good people*” (G., Sarno).

Therefore, the family network was the principal element useful to face the catastrophe and because of that, one could question the role of the authorities that often use people’s familiar network as a “buffer” institution during emergencies.

### ***The long-term displacement***

The long-term analysis, points out the different individual or family strategies from 6 months to 14 years<sup>89</sup> after the catastrophe (**Table 16**, page 159). Here we can see that the long-term strategies differ also within the families. Three male individuals, alone, for some years decided to leave Sarno and move to Naples or Rome, because, according to their mother I interviewed, “*remembering is too hard*” (G., Sarno). Four families decided to move to another district of Sarno: “*I’d like to go back to Sarno. But I was afraid to go to Episcopio district*” (D., Sarno). Another family decided to move definitively to Scafati defined “safer” (A., Sarno).

One household unit decided to rent a house in Foce for three years waiting to come back to Sarno “*We hate Sarno. But we love it*” (F., Sarno). Waiting for the recovery of the old house is a current preoccupation also for the families who were, for 12 years and 13 years, hosted by their families and the man who was hosted for 13 years by some friends. One person (lost his family) still lives in Foce, waiting for his house because “*My home is in Sarno. My home is Sarno. Sarno is my home*” (E., Sarno).

The mobility, as a form of strategy, has been a useful tool to cope with the landslide in the hours that followed it, but the temporary or definitive moving to other places, involves other factors (sex, age, administrative status, work). Their previous social, economic, family and cultural capital in fact, played a very crucial role in the strategies they adopted to face the catastrophe in the short, medium and long-term.

The catastrophe of Sarno can be considered as an important example to understand the connection between the previous capital, the vulnerability, the mobility, and the importance of a homogeneous normative and operative framework. Moreover, it can be

---

<sup>89</sup> The fieldwork has been conducted in 2012.

very peculiar when considering the patterns of mobility on both space and time axes. Indeed, it is possible to infer that the mobility in Sarno testifies the complete misrecognition of the phenomenon of environmentally induced displacement in Italy. The authorities stress the importance of the rescues but no attention is given to the effective patterns of mobility produced by the landslide and it seems that in the public discourse this issue is completely overlooked.

**Table 16: Long-term displacement according to the distance from Sarno**

Long-term displacement according to the distance	Sex	Age	Location in 1998	Long-term (6 months - 2012)
Returned in Sarno in the old house	F (B)	27	Viale Margherita	<i>Castel San Giorgio (3 km far) for 3 years, then we came back to Sarno in our old house.</i>
	F (J)	43	Via Pedagnali	<i>Relatives in Foce (11 km far for 12 years, then we came back with my family in our old house</i>
Returned in Sarno in a new house	M (F)	50	Episcopio district	<i>We rented a house in Foce (11 km far) for 13 years and now we live again in Episcopio district in a new house.</i>
	F (G)	62	Episcopio district	<i>We rented a house in Fimiano (52 km far) for 13 years and then we come back is a new house in Episcopio district.</i>
	M (I)	67	Episcopio district	<i>I was in Foce (11 km far) for 3 years, and then we came back again in Sarno in another house.</i>
	M (K)	31	Episcopio district	<i>We rented a house in Foce (11 km far) for 13 years and now we live again in Episcopio district in a new house.</i>
Returned in Sarno but in another district	F (D)	65	Episcopio district	<i>I moved in another district of Sarno.</i>
	F (C)	60	Episcopio district	<i>I moved in another district of Sarno.</i>
	F (H)	65	Episcopio district	<i>With my family, we moved in another district of Sarno.</i>
11 Km far	M (E)	65	Episcopio district	<i>I am still at some friends' in Foce (11 km far).</i>
17 Km far	M (A)	40	Episcopio district	<i>We moved to Scafati (17 km far) definitively.</i>

*Source: Personal elaboration.*

In other words, in this “unnatural” catastrophe the presence of the anthropic factors must be ascertained. Even if the tragedy of Sarno has been one of the most crucial in the Italian history, it seems still be necessary to adopt sustainable and correct land-use practices, in terms of forestry and urbanisation management. Its violence and the losses it provoked can be considered as a turning point in the perception of the hydrogeological hazard not only in the region, but also in the whole peninsula and as a starting event to produce new laws to protect vulnerable areas.

### **III.2.c The forced resettlement in Cerzeto**

Differently from the case of Sarno, where a lack of communication and cooperation between the institutions created a delay in the rescues, in the case of Cerzeto the National Civil Protection (PC) early-warning system organised the evacuation according to evacuee’s previous networks (in Cerzeto – also in San Giacomo district – or other villages), through the “autonomous accommodation”.

Moreover, the PC organised the camps in the primary school of the village (**Photo 6**, page 161) and in some touristic infrastructures in the nearby villages, such as in the two Municipalities of San Fili, San Marco and San Martino, and in the churches of the Eastern Rite Greek-Byzantine Dioceses where the local italo-albanian population practices their religious belief. “*We, the Arbëreshë are very cohesive. We help each other*” (T., Cerzeto).

**Photo 6: The camp in the local primary school**



*Source: [www.nuovacosenza.com](http://www.nuovacosenza.com) (2012).*

### ***The displacement in the immediate aftermath***

In the case of Cerzeto, all the people moved when the landslide started its movement (**Table 17**, page 162). *“The Civil Protection told us to go away. So, we arrived in the school”* (P., Cerzeto); *“I immediately called some relatives: I went to S. Fili; I have a disable son: I couldn't stay in a school!”* (S., Cerzeto).

In fact, after the alarm of the PC the people escaped from the old Cerzeto seeking a refuge. 5 interviewees with their families passed the first moments in the aftermath of the catastrophe in some emergency camps (in the Primary school and in the Church of San Martino). Nonetheless, the biggest part was hosted by relatives in the same village of Cerzeto, in San Giorgio district (three families), in San Martino (two families) and in San Fili (one family).



**Table 17: The displacement according to the mobilised capital**

The displacement according to the mobilised capital	Sex	Age	Short-term
<b>The camps</b>	<b>F (L)</b>	40	I went in the camp organised in the school of Cerzeto with my family
	<b>M (O)</b>	45	I went in the camp organised in the school of Cerzeto with my family
	<b>M (P)</b>	87	I went in the camp organised in the school of Cerzeto with my family
	<b>M (Q)</b>	43	I went in the camp organised in the school of Cerzeto with my family
	<b>F (U)</b>	27	I went to the S. Martino (19 km far) camp with my family
<b>The family network</b>	<b>M (R)</b>	24	I moved in S. Giorgio district, in Cerzeto to some relatives with my family
	<b>M (Y)</b>	65	I moved in S. Giorgio district, in Cerzeto to some relatives with my family
	<b>M (S)</b>	76	I moved in S. Giorgio district, in Cerzeto to some relatives
	<b>M (T)</b>	56	I moved in S. Martino (19 km far) to some relatives
	<b>W (V)</b>	67	I moved in S. Martino (19 km far) to some relatives with my family
	<b>F (X)</b>	58	I moved in S. Fili (50 km far) to some relatives

*Source: Personal elaboration.*

For families with disabled and elderly relatives it was very difficult to move. Children were completely shocked by the moving and by the fact that it was impossible to come back home “*My daughter did not speak for 10 days. She wanted her room*” (L., Cerzeto).

According to all the interviewees, the National Civil Protection Department organised the rescue, someone thinking about the redeeming role of Berlusconi and Bertolaso considers them as “*Our heroes*” (Y., Cerzeto).

### *The medium-term displacement*

The medium-term<sup>90</sup> is considered in the following **Table 18**, page 164. Eight interviewees were hosted by relatives or friends. Three interviewees rented houses in other districts of Cerzeto, or in nearby villages (S. Fili and S. Martino). The previous occupation has a central role in the choice of displacement in the medium-term. The farmers lost access to their lands and the shepherds to their herd, and it has been very difficult for them to stay away from the old settlement of Cerzeto.

A person with local economic activities, tried to place his activities in other villages, but for them it was difficult to find customers. *“I want to stay near to my activity, even if I won’t do it anymore”* (V., Cerzeto). *“My pizzeria is dead, I tried to open a pizzeria in Torano, but it didn’t work”* (Q., Cerzeto).

Even in this case the importance of networks and family and friend relations in the territory seems to be very important for the social cohesion and the reciprocal help that people can give each other.

---

<sup>90</sup> In the case of Cerzeto, we can consider the medium-term from 1 week to 6 years, until the construction of new houses, in 2011.

**Table 18: Synthesis of the typologies of capitals mobilised in the medium-term**

Mobilised capital	Sex	Age	Actual Profession	Profession in 2005	Medium-term (1 week - 6 years)
<b>Economic</b>	<b>W (L)</b>	40	Café owner	Café owner	We rented a house in Cerzeto
	<b>M (O)</b>	45	Employee	Employee	We rented a house in Cerzeto
	<b>W (X)</b>	67	Housewife	Housewife	We rented a house in S. Martino (19 km far
<b>Family</b>	<b>M (P)</b>	87	Retired	Retired	I moved to some relatives in Cerzeto
	<b>M (Q)</b>	43	Pizzeria owner	Pizzeria owner	I moved to some relatives in Cerzeto with my family
	<b>M (R)</b>	24	Student	Electrician	I moved to some relatives in Cerzeto with my family
	<b>M (S)</b>	65	Farmer	Retired	I moved to some relatives in Cerzeto with my family
	<b>M (T)</b>	76	Farmer	Retired	I moved to some relatives in Cerzeto
	<b>W (U)</b>	27	Employee	Employee	I moved to some relatives in Cerzeto with my family
	<b>W (V)</b>	56	Grocery store Owner	Owner	I moved to some relatives in Cerzeto with my family
	<b>M (Y)</b>	58	Employee	Employee	I moved to some relatives in Cerzeto with my family

*Source: Personal elaboration.*

### ***The relocation in Pianette***

Despite of the percentage of the highly affected area in the hazardous phenomenon was about 11.5% – centred in the new urban expansion of the village mostly in Cavallerizzo district – (Izzo, 2010, but also Protezione Civile Nazionale, 2005), few months after the event, through the Prime Minister declaration n. 3472 of October, 21, 2005, totally financed by the Civil Protection Department for an amount of 50,000,000 €, a new site was individuated for the displacement of all the Cavallerizzo district, even for the inhabitants to which the catastrophe did not cause damages on houses and even for illegal buildings owners. As the Cerzeto Reconstruction council Member told me, “*Everyone needs a house.*

*We are not the police; we only have to build new houses.” This is a crucial element if one wants to take into account the entire political and economic framework surrounding the immediate first aid, the reconstruction and the resettlements. “Here they have experimented what they were going to do in L'Aquila. The only difference was that here we have ‘Ndrangheta’<sup>91</sup>, there Mafia and Camorra” (S., Cerzeto).*

After the 2005 event, in fact the CNR-IRPI (National Research Centre and Research institute for geo-hydrological protection) decided to delocalise Cerzeto in the report “Danger scenarios in the district of Cavallerizzo, in Cerzeto”<sup>92</sup>, concluding that “*The intervention of mitigation and recovery has enormous costs, comparable with those of delocalisation; moreover the population would be exposed to high level of danger [...]. The delocalisation is the best intervention and the best localisation for this displacement is the Pianette area.*”<sup>93</sup> The fact that the delocalisation and the resettlement had the same presumed cost for the rehabilitation is an argument largely used both by the exponents of the PC I met in Rome, and by the local Municipal council members I met in Cerzeto.

On the contrary, this argument is completely rejected by “Legambiente Calabria” and the local association “Cavallerizzo Vive”: “*The old settlement had a life. The new one is just a slot machine for some politicians,*” underlying the complicate cost-benefits analysis between rehabilitation and construction. In addition, the experts strongly opposed this decision “*It is a loss of resources. It means the end of a community and it testifies how economic interests prevail on the community needs.*”

The new site, situated in Pianette (2 Km far in the North-East of Cerzeto, as shown in the following **Map 7**, page 166, was chosen according to the Comune di Cerzeto Protocol n. 4183 without any collaboration of local associations and without any concerns about the fact that the new site presents the same lithographic and hydrogeological characteristics of the old one, even if according to the Protezione Civile Nazionale this new site is “hydrological and seismic risk free”.

After 6 years of forced dislocation in other villages or in touristic infrastructures of the area, the first houses in the new settlement, called “Nuova Cavallerizzo di Cerzeto”, or “new Cerzeto” were accessible in 2011, could accommodate 564 inhabitants, 264

---

<sup>91</sup> The local criminal organisation.

<sup>92</sup> “*Scenari di pericolosità nella frazione Cavallerizzo di Cerzeto*”.

<sup>93</sup> “*Gli interventi di mitigazione e di ripristino hanno costi altissimi, comparabili con quelli della delocalizzazione; inoltre la popolazione sarebbe comunque esposta ad un alto livello di rischio. La delocalizzazione è pertanto il migliore intervento e la migliore località per questa delocalizzazione è la località di Pianette*”.

houses and 5 commercial activities - 1 grocery store, 1 bar, 1 pizzeria, 1 restaurant and 1 shoe shop. *“In Cerzeto we had a Church, a School. The Post Office was closed: here we have nothing”* (U., Cerzeto). The project of the new town was conducted without any attention to the specificity of the local community (traditionally and culturally speaking), even considering that, according to one of the interviewee *“in the town of Cerzeto there are a lot of abandoned houses that we could have occupied, with no waste of public money”* (V., Cerzeto).

This forced displacement has been organised without taking into account the historical and cultural importance of the town for the community who had lived there since many years: *“Here – speaking about the ‘new’ settlement of Cerzeto – is not my house”* (P., Cerzeto), expressing nostalgia and melancholy for the old world. The new life is just a substituted of the old one. So, the local population, first were evacuees, then were forced to stay away from the old historical village, finally were displaced in the new settlement, surrounded by polemics.

**Map 7: The Cerzeto reconstruction project in Pianette site**



*Source: Protezione Civile Nazionale (2006)<sup>94</sup>.*

<sup>94</sup> Protezione Civile (2005), Available at: [http://www.protezionecivile.gov.it/jcms/en/view\\_gal.wp%3Bjsessionid=2EFAEE99C3F12A83488ACDED6838FC4D?facetNode\\_1=f2\\_8&prevPage=multimedia&numelem=6&contentId=GAL23110](http://www.protezionecivile.gov.it/jcms/en/view_gal.wp%3Bjsessionid=2EFAEE99C3F12A83488ACDED6838FC4D?facetNode_1=f2_8&prevPage=multimedia&numelem=6&contentId=GAL23110), last access January 2014.

### *The long-term evidence*

People had different reaction to the resettlement: “*Bertolaso and Berlusconi were our heroes. Here, I have a photo of them, you see, as if they were Saints. They saved us!*” (L., Cerzeto). “*They are two thieves: they have stolen our money and they have stolen our identity too*” (T., Cerzeto). The different approach to the resettlement testifies a personification of the political choice, typical of the Italian political panorama. The attention of the protest focuses on the politician rather than on the governmental decision, making the support or the protest completely biased by political beliefs. In the following **Photo 7**, the visit one can notice of the Head of the National Civil Protection (PC) at the time. His presence has been surrounded on the one hand by polemics; on the other it has been considered essential in the resolution of the crisis in Cerzeto.

**Photo 7: The Head of PC visiting the New Town**



*Source: “Il Quotidiano della Calabria” (2009)<sup>95</sup>.*

The interviewees have all been displaced in the new village, even, in some case, despite themselves. Some people decided to sell or rent the new house because they did not accept the compromise with the authority.

---

<sup>95</sup> Available at: <http://www.ilquotidianodellacalabria.it/gallery/720406/La-frana-di-Cavallerizzo-e-la.html>, last access February 2014.

It is interesting to end this description of the Cerzeto displacement with a visual document. On the wall of the old delicatessen in the ancient town, one can notice the writing (following **Photo 8**): *“The right anger. The anger that is right is called indignation. The right anger made the revolution. Each conquest of history, all rights acquired, any progress are born from indignation, felt by an oppressed minority”*. The feeling to be a marginalised minority excluded from the public debate and from the decision makes the resettlement even harder.

**Photo 8: The abandoned delicatessen**



*Source: Personal photo (2012).*

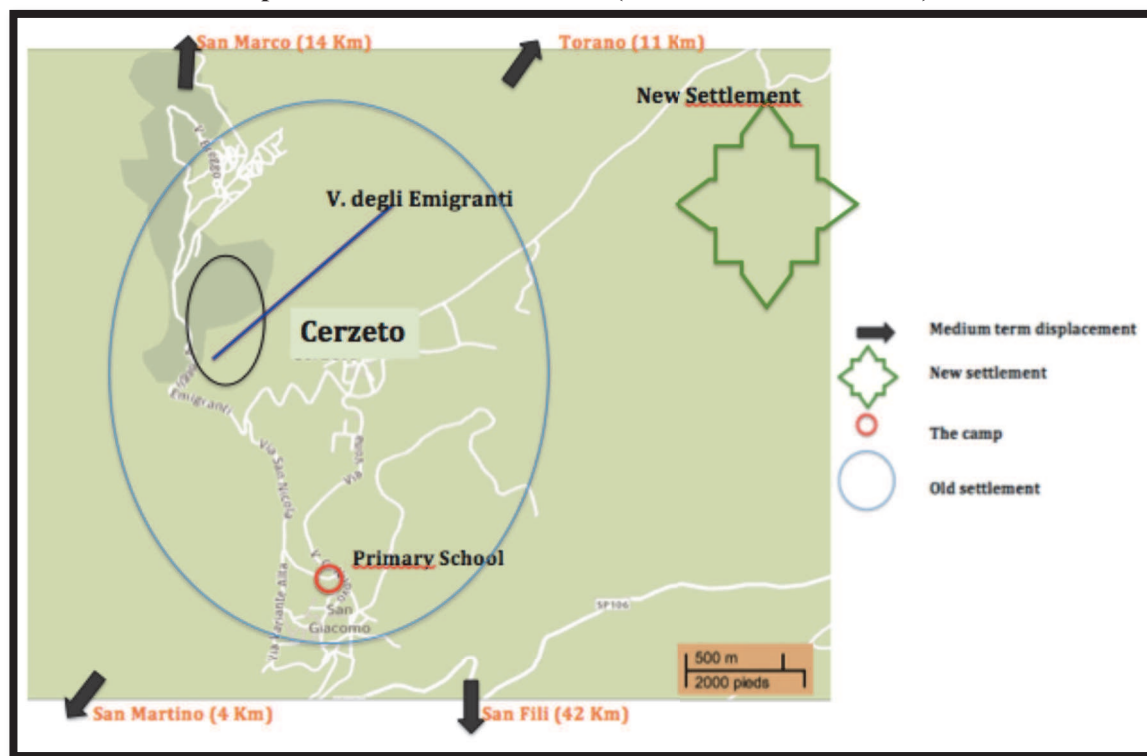
The case of Cerzeto clearly shows how a forced displacement can occur even in a Northern Country. Political, economic and environmental factors seem to cross and local population again feels as a victim of top-down choices. No prevention has been done in the years before the catastrophe, even if there were many signals about a possible landslide. In any case, when the catastrophe occurred, economic and political interests overcame the real needs of the local population.

The resettlement, the construction of new buildings, and the forced displacement of the community has been a privileged choice, taken without any community consultation and without any regards to the sustainability of the new site (**Map 8**, page 169), as I



show in the following chapter. Again, this case is a good example not only to consider the mobility in the aftermath of a catastrophe in a Global North country, but also to consider the specific dynamics of the environmentally induced displacement phenomenon, often hidden by the media and the authorities, for a given community.

**Map 8: Localisation of Cerzeto (new and old settlements)**



*Source: Personal elaboration.*

\*\*\*

In this chapter, I firstly evaluated the contexts in which occurred the landslides in Sarno and Cerzeto. From this overview, it has been possible to analyse the patterns of vulnerability of the examined areas. A mix of social, economic, demographic and environmental patterns, in fact, in the last decades, has jeopardised the two sites making them very exposed to natural hazard.

In both cases, a prolonged rainfall has triggered a landslide with a very crucial impact on the life of the community. The two landslides have also been the causes of different forms of mobility that have interested the population in the short, medium and long-term.

Secondly, I focused on the town of Sarno in order to observe the mobility triggered by the landslide. From the observation of this case it has been possible to underline how the possibility to escape, as an immediate reaction to the catastrophe follows the social and economic cleavages already present in a determinate community. Moreover, it is possible to recognise that the role of population and institution perception is likely to be a crucial element when considering mitigation, adaptation and resilience to natural disasters.

The fact that mobility and immobility related to previous vulnerability are two faces of the same coin can be considered as one of the main findings in analysing the environmentally induced displacements issue. Moreover, this case can be representative because the mobility consequent to a catastrophe occurred in an already very vulnerable context situated in a Global North country. The traditional and social structures, as well as the complete lack of preventive measures increased the consequences of the landslides provoking victims, economical damages and mobility, which had serious consequences on the concerned community life.

I finally analysed the process of forced resettlement in the rural village of Cerzeto in 2005 and how the institution centralised the management of this process. The case of Cerzeto, in fact, represents a good example to show how, in the process of environmental degradation, its consequent environmentally induced displacement and resettlement is an on-going process in Italy, which probably would need more attention by media and the international community. Nevertheless, despite all the rhetoric presented by the governmental propaganda and the media (in positive or in negative terms), in this case it has been possible to recognise a top-down approach which crossed with economic interests, that can be recognised as the cause of a resettlement without any concern to the local population needs.

As for the case of Sarno, the mobility in the short medium and long-term is filtered by other factors (the previous capabilities given by previous social traditional structures) but also the authority decisions in an already very vulnerable context situated in a Global North country. In fact, it is possible to underline how in both cases a depressed economic context based on traditional first sector economies, where illegal activities are very commonplace and create problems in the economic, social and environmental sphere, demonstrating the presence of vulnerable people and classes in each society, even in Global North countries. Accordingly, from this case, it is possible to notice how the level of agency is limited in a forced resettlement and

how it can provoke long-term damages to the local economy. Apart from the economic negative consequences, it is possible to underline how the forced resettlement process had a very deep impact on the life of the community, its cohesion, and on the economic life of the area.

The cases present findings that are useful in order to proceed to the inference process about the analysis of the minimisation of the environmentally induced displacement phenomenon in the Global North countries. In order to enrich my research, in the next chapter the results of the two case studies are used to deeper analyse the discourse of the phenomenon of environmentally induced displacement in the Italian context.

### **III. 3 The representations of the landslides**

#### **Introduction**

After having individuated the consequences of the two landslides of Sarno and Cerketo and their implications on human mobility, in order to continue my investigation about the possible misrecognition of the phenomenon of environmentally induced displacement in Italy and in the Global North, I now consider the different forms of definitions that have been given to the phenomenon. This analysis investigates the public and private discourses about the catastrophes and their consequences.

In order to deeply analyse the different narratives and representations in the aftermath of the landslides of Sarno and Cerketo I provide a triple-elements analysis considering the media, the memorials and the interviewee's drawings. The importance of this analysis stands because, considering the main question of the thesis, it is necessary to observe the different labels used to describe, the different images used to represent, and the different concepts used to define the catastrophe and its impact.

Firstly, I analyse the media (mostly TV and press) that have mostly been interested in the narration of the two catastrophes, trying to consider the same parameters for both cases. The media can be, in fact, considered as the "place" of public debate and of political propaganda, and political symbols (Duhamel and Mény, 1992). Their analysis is essential for the comprehension of the construction of the public opinion about a concept or a phenomenon.

Secondly, I analyse the different memorials that have been built in the two sites hit by the landslides, considering the deep motivations of their construction and their social "utility" in the construction of the collective memory (Pennebaker and Gonzales, 2009) and in the "patrimonialisation" of a collective event in order to understand which is the collective approach to the memory and the elaboration of a trauma.

Finally, I take into account the private memorialisation of a specific event, considering the drawings of the people I interviewed during the fieldwork. This analysis is essential in order to interpret the exteriorisation of the public discourse of the people involved in the catastrophe and its related mobility, in the medium and long-term.

This analysis will help me in the recognition of the approach that the public opinion and the people concerned in the catastrophe have about it and to understand how the narrative about these events and about their consequent mobility is constructed.

### **III.3.a The media representation**

Mass media play a crucial role in the construction of collective memory as a “catalyst of creation of collective memory” (Finkenauer, et al., 1997). In other words, they are the prism through which the post-modern reality is represented. They can also concur to unify the memories of different people and reinforce the mainstream approach to a given event. The different strategies adopted by the people show how the catastrophe is related to immaterial symbols associated to material places and how it can reverse them.

This is why I examined not only how the landslide happened but also what it implied in term of “*end of a word*” (Teti, 2004: 74) through the narration given by the media and the affected people. The mobility to which populations have been subjected – temporal, permanent, at long or short distance – reflects a strategy to face a catastrophe. Political, economic and environmental contexts, such as personal finances, social and cultural factors are crucial elements when considering a catastrophe and the answer that politicians and communities give.

The description of the landslide and of its catastrophic consequences in terms of physical damages and mobility can also be retraced thanks to the representation given by the media. It is interesting to analyse the different media discourses and definitions about the catastrophes and their consequent mobility in order to discover the different conceptualisations, definitions and approaches to the same phenomenon.

This analysis has been possible thanks to researches in newspaper public libraries, in the web press and in TV reviews. Different elements of analysis have been taken into account regarding the presentation of the phenomenon done by the press and by the televisions. The catastrophe in itself, the process of victimisation, the rescues and the presence of the State, the fatalism/religious beliefs, and, finally, the blaming processes linked to the description of the catastrophe and its impact on the human communities are the principal issues that I observe in my research. Before considering the specific debates around the phenomenon and the different coverage done by media, it is

necessary to precise that the analysed newspaper or TV represents only a sample in the Italian media panorama.

I decided not to analyse the radio, but I focus on the press and the TV because of the importance of the images associated to a specific language or narrative. Internet has been used mostly to contact the associations, but there is not a real mobilisation done by the net, overall because the landslide in Sarno occurred in a period where the use of internet was not diffused, and that in the case of Cerzeto the population is quite old and not very used to computers.

This choice, far to be exhaustive, reveals the necessity to underline what are the differences between local newspapers and national newspapers and what are the main and recurrent topics in the description of a given catastrophe and its related impacts on human communities, for both the cases of Sarno and Cerzeto, namely the “catastrophe itself”, the “process of victimisation”, the “rescues and the presence of the State”, the “blaming process”, and the “fatalism and the religious beliefs”. In order to have an overview of the mentioned newspapers and TVs, is provided the following **Table 19**.

**Table 19: Sample of newspapers and TVs used in this study**

Kind of media	Distribution	Political orientation	Name
TV	National	Private/Centre-right	<i>Mediaset (Rete 4, Canale 5, Italia 1)</i>
		Public/neutral	<i>Rai (Rai 1, Rai 2, Rai 3)</i>
Press	Local	Centre-Right	<i>Il Mattino</i>
			<i>Il quotidiano della Calabria</i>
			<i>Calabria Ora</i>
			<i>Gazzettino del Sud</i>
	National	Conservative	<i>Secolo d'Italia</i>
		Moderate-Conservative	<i>Corriere della Sera</i>
			<i>La Stampa</i>
		Centre-Left	<i>La Repubblica</i>
		Catholic	<i>Avvenire</i>
		Left	<i>Il Manifesto</i>

*Source: Personal elaboration.*

### *About the catastrophe in itself*

The attitude of the national press aims to sensitise the public over an event but it often lacks of a deep analysis on the causes and the effective consequences on the communities.

#### *a. In Sarno*

In the case of Sarno, the day following the catastrophe (6<sup>th</sup> May) national newspapers did not talk about the catastrophe: only the local newspaper “Il Mattino” reports “*Rain is provoking damages in Campania*” (6/05/1998) as an alarming but quite normal event. This first finding is interesting to understand the complete underestimation of the consequences that the landslide was provoking in the Region. Moreover, this element allows the recognition of an important lack of communication between local authorities and national ones.

From the 7<sup>th</sup> of May, two days after the catastrophe, there are the first articles concerning the catastrophe. It is interesting to notice how the idea of the dead and submerged city is used by the national newspaper, indifferently from their political orientation: the conservative newspaper “Secolo d’Italia”, two days after the tragedy, titles: “*Under a sea of mud*”, talking about victims and evacuees; accordingly, the moderate and liberal “Corriere della Sera” talks about the fact that people have been “*Interred by a mud avalanche*” (07/05/1998).

Besides, the centre-left daily “La Repubblica”, underlines the theme of the “*Carnage in the mud*” (07/05/1998). The moderate-right newspaper “La Stampa” refers to an “*Apocalypse*” (07/05/1998), while the Catholic daily “Avvenire” talks about the fact the people have been “*Ingested by the cold lava*” (07/05/1998) (**Figure 12**, page 176).

In this sense, it is possible to retrace the rhetoric of the submerged city even if the terms “lava” and “mud” are used alternatively and the accent is put on the vastness of the “calamity” completely out of control: the environment is, indeed, conceptualised as an exogenous factor. The national news channel TG3 uses the rhetoric of the “tragedy” to describe the first images of the catastrophe and its impact on the community.



Figure 12: The mud Apocalypse



Source: "Avvenire", "Corriere della sera", "La Stampa", "La Repubblica", "Secolo d'Italia", front cover, 07/05/1997.

Differently, the local "Il Mattino" (07/05/1998), points out the "unnaturalness" of this disaster talking about a "*Manslaughter disaster*," blaming the Campania government not to be able in the managing of the territory. Likewise, the national communist party daily, "Il Manifesto" (07/05/1998) titles "*Murder*," blaming the local government about the territorial mismanagement (Figure 13, page 177). It is important to notice how only the left national daily "Il Manifesto" and the local centre-right newspaper "Il Mattino," at least for their first editions, are suddenly interested at the blaming process, rather than in pointing out the presumed natural (e.g. the "lava" or the "mud") causes of the catastrophe.

Figure 13: Institutional fault



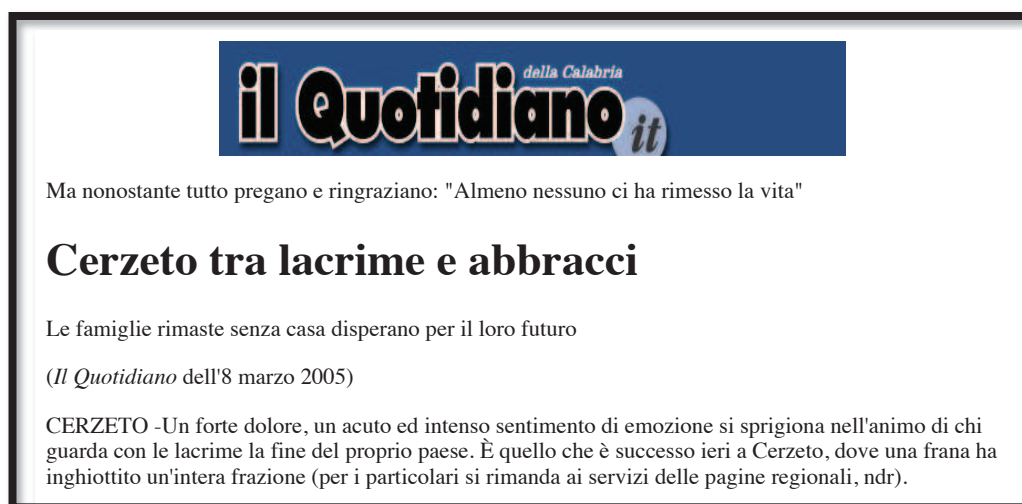
Source: personal elaboration from “Il Mattino” and “Il Manifesto” 07/05/1997.

#### b. In Cerzeto

In the case of Cerzeto, differently, the attention given to the catastrophe from the national newspapers is really limited. Only “La Repubblica” points out, in a chronicle page of the 7<sup>th</sup> May 2005 that “*In the province of Cosenza a landslide wipes out a district*” The fact that the national press does not insist on the consequences on the population can be referred to the fact that probably the evacuation of the village had been considered, in a first moment, as temporary. Under no circumstances, it can be considered also as a political strategy to hide the previous project to construct a new settlement to displace the minority.

The local press (**Figure 14**, page 178), “Il Quotidiano della Calabria” (8/3/2005), instead, focuses the attention on the fact that evacuation in Cerzeto has been done “*Between tears and hugs*” and that “*The families without home are worried about their future*” even if “*Everybody prays and thanks because nobody died.*”

Figure 14: “Tears and hugs during the evacuation”



Source: Cavallerizzo di Cierzeto press review,

[http://www.oresteparise.it/Cavallerizzo/IlQuotidiano08marzo\\_2.htm](http://www.oresteparise.it/Cavallerizzo/IlQuotidiano08marzo_2.htm), last access March 2014.

The representation of the catastrophes and their consequences given by the press radically varies according to the user base (national or regional): the proximity and the affinity with local population makes the local press more incline to analyse the feelings of the population rather than generalise in a catastrophic view the events.

In any case, all the newspapers or TVs adopt a casual and simplistic axiom according to which the rain provokes the landslide. The fatal damages are inescapable, because that places are “destined” to be hit by catastrophes, in a sort of deep resignation. Again, the fatalism emerges in the public discourse: the State, the communities are not considered responsible for the use of the territory. It is just a hazard as for a game: this is why the daily “La Repubblica,” in a chronicle article on the 8/05/1998 states, “*Italy plays hide-and-seek with landslides and earthquake*”.

From all these newspapers, it has been possible to analyse a focus on the violence of the calamity and about the physical impacts on population and goods. The process of evacuation, even in the short-term is completely overlooked by media, which concentrate on the spectacularisation rather than on the deep analysis of the events.

### *About the process of victimisation*

The cases of Sarno and Cerzeto show a significant difference in the process of victimisation and spectacularisation done by the media. The case of Sarno is more glaring and evident. The presence of deaths makes it a rich soil for a political rhetoric and propaganda. Instead, in the case of Cerzeto, maybe because of the protests, after a first moment in which they have claimed the “emergency” the media have hidden the consequences of the landslide on the community.

Thus, the journalists, both in the press and in televisions focus their attention on the people and their personal stories. The “survivors” who stand in front of the cameras, near to their destroyed houses, talk about the event and about the fact they have escaped “death” by chance (following **Figure 15**).

**Figure 15: The depositions of the survivors in Sarno**



*Source: Youtube (2009). Available at: <http://www.youtube.com/watch?v=eUZ0TmeNc94>, last access March 2014.*

The presence of the journalists and of the cameras in front of the destroyed houses makes the places even more ghostly and miserable. Hence, considering the case of Sarno, in the days and the weeks that followed the catastrophe all the national and local press and television underlined the presence of the survivors between the ruins, using their depositions to reconstruct the event – seen as an ineluctable calamity – and opposing their experience to the people who were “*buried by the mud*” (**Figure 16**, page 180).

Figure 16: Survivors vs dead people in Sarno



Source: Personal elaboration from "Il Mattino" (7/05/1998).

"I defeated death" titles the article of the "Il Mattino" three days after the landslide; the survivors become the heroes and media use their stories to suggest the readers' pietism (Figure 17, page 181). The mud interred Roberto, the survivor presented in the article, for a complete night: but his faith and his prayers saved him. The faith is considered as a sort of protection and the religious feelings contribute to create a contradiction representing the survivors as good persons escaped from the fury of nature.

The causality, the destiny and the fate are the most used concepts to describe the event and the fact that someone died and someone survived. No attention is given to the previous vulnerability.

The catastrophe is considered as a plague for everybody: only chance seems to be responsible of the calamity. Personal stories, memories, direct evidences, are spectacularised, and the catastrophe is even described as "*the Vietnam war*" ("La Repubblica," 10/05/1998).



Figure 17: The faith of the survivor



Source: Personal elaboration from "Il Mattino" (8/5/1998).

The other's "pain printed on the face" ("Il Mattino," 10/05/1998) becomes an important issue to sensitise the spectator and raise the audience. The discourses of victimisation can be also be inferred to the political propaganda. The fact that some people "need help" make necessary a top-down intervention and decision, that completely denies the level of agency of the people involved in the catastrophe.

In the description of the catastrophes, the displaced are described as evacuees or victims. No stress is given to their mobility nor to the trajectories did people take to cope with the catastrophe.

### *About the rescues and the presence of the State*

The images of the rescues often present tragic scenarios with firemen at work, volunteers digging into the ruins concentrating on children and elderly (defined as "helpless"), but also some exponents of the central or local institutions visiting the places and the people hit by the catastrophe.

*a. In Sarno*

The representation about the presence of the State (through its representatives) visiting the places hit by the catastrophes is a recurrent leitmotif for both examples, even if it implies different outcomes, as it is possible to notice from the following **Figure 18**. In the case of Sarno the rescues in the aftermath of the landslide have been particularly “*chaotic and slow because of a lack of coordination*” as “La Repubblica” points out (10/05/1998) but also different news channel as the TG3 (RAIteche website).

**Figure 18: The rescues in Sarno on TV**



*Source: RAIteche (1998).*

The volunteers are defined “more helpful” rather than the Civil Protection who had much delay in the rescues (“Il Mattino,” 8/05/1998) and this issue will emerge also in the blaming attitude in the days following the catastrophe, as noticed by the dialy “Il Mattino” (10/05/1998) (see **Figure 19**, page 183).



**Figure 19: Too much delay, the Government and the Region under accusation**



*Source: "Il Mattino", 10/05/1998.*

The representation of the misery and of the defencelessness of the people hit by the landslide is exposed in a very suggestive way, highlighting the fact that people “need help” against the “*Mud that stroke in an instant*” (“Il Mattino,” 10/05/1998) in the following **Figure 20**.

**Figure 20: The representation of the helpers and the helped in Sarno**



*Source: Personal elaboration from "Il Mattino", 10/05/1998.*

Once again, the responsibility of nature is pointed out and the level of agency of the people involved in the catastrophe is completely denied throughout their representation

that becomes only the juxtaposition of the people in seek of help and the people helping, oversimplifying the complexity of the rescues.

The representation of the presence of the State in Sarno (following **Figure 21**) can be considered as a sort of “*deus ex machina*” (“Il Mattino” 11/05/1998), where the unsolvable problem of the catastrophe is suddenly and abruptly resolved by the only presence of the representative of the State, at time the President of the Republic Scalfaro who “*in an emotional moment, has made promises and comforted the population*” while the Prime minister, at the time R. Prodi, from the Parliament, in Rome, claimed, “*A future for your sons*”.

This attitude underlines the total separation and distance between the power and the real needs of population. Also the Pope “*who prays for with all the victims of the calamity*” figures in the same article and it reveals the complete assimilation between the role of the central State and the role of the Catholic Church in Italy versus the local power, not able to promote preventive and post-recovery efficient actions.

**Figure 21: The authorities and the catastrophe in Sarno**



Source: Personal elaboration from “Il Mattino” 11/05/1998.

The fact that the rescues in Southern Italy are generally slow and inefficient derives from the general idea that Southern Italy is naturally incline to “chaos” and “anarchy” (“La Repubblica”, 8/05/1998). The title of the news given by the TG3 (RAIteche, website) emblematically resumes all the cleavages between the North and the South in Italy: “The South crumbles” (following **Figure 22**). It reveals the necessity of a strong public power that has to “help” the local population because the local power is not able to manage the emergency, but it will also be the current mediatised justification of the slowness of the reconstruction.

**Figure 22: “The South crumbles”**



*Source: RAIteche (1998). Available at: <http://www.teche.rai.it/decenni/90.html>, last access March 2014.*

*b. In Cerzeto*

If in the case of Sarno the media stopped to talk about the catastrophes after the emergency period, in the case of Cerzeto the newspapers and the televisions talked about the presence of the State also some months and years after the landslide.

In the case of Cerzeto, in fact, the discourse about the mobilisation of the rescues partially fills a political propaganda design: the fact that no one died during the catastrophe, at least in a first moment, allows to an agreement around the rescues and a political judgement about the mobilisation of the institutions. The rescues are, in this sense, directly organised by the National Civil Protection and their efficiency is almost “*incredible for Southern Italy*” as presented in the local TV “Tele Cosenza” (11/03/2005).

Again, the presence of the State is represented as “The solution” for the problems of the affected population (following **Figure 23**). In the case of Cerzeto, the central State directly overcame the local and Regional powers and affirmed its presence by deciding the resettlement in a top-down approach.

**Figure 23: The institutions visit Via degli Emigranti in Cerzeto**



*Source: CN24 (2005). Available at: <http://www.cn24tv.it/news/20632/frane-gabrielli-oggi-a-cavallerizzo.html>. Last access March 2014.*

This is why F. Gabrielli (the head of the Civil Protection after G. Bertolaso, since 2009), six years after the catastrophe (in 2011), decided to visit the new town during Christmas and to offer a Christmas tree to the population (**Figure 24**, page 187), as reported by the local paper “Calabria ora” (20/12/2011) that titles, “*Gabrielli comes back to Cerzeto and inaugurate a Christmas tree in the new town*”.



Figure 24: The offered Christmas tree to the resettled community



Source: "Calabria Ora", 20/12/2011.

The tree is a symbol of the "generosity" of the State, considered by media as a father. The State, in this sense, provides to the physical and emotional needs of the population in a paternalistic way and this is what, indeed, allows it to adopt top-down policies. In the same sense, the following photo (**Figure 25**, page 188) shows how newspapers report the inauguration of the new houses in the "new" Cerzeto.

It is possible to notice the presence of the head of Civil Protection, the Mayor of Cerzeto, the President of the Region and the Bishop of the Province of Cosenza, where Cerzeto is situated. The overlapping between the spiritual and temporal powers, typical of the Italian system, testifies the complete top-down approach in the resettlement that opposes all the powers and the citizens.

**Figure 25: The inauguration of the new houses in the “new” Cerzeto**



*Source: “Nuova Cosenza” (19/12/2011). Available at:  
<http://www.nuovacosenza.com/cs/11/dic/19/gabrielli.html>. Last access March 2014.*

### ***About the blaming process***

The blaming process against the local government is announced and a scapegoat is looked for.

#### ***a. In Sarno***

In the case of Sarno, public accusations, scandals and indignation are the most used terms to describe the responsible people (**Figure 26** page 189).

The promise to find “The” responsible seems to manipulate the debate in the media. This blaming process in Sarno was an end on itself, because no legal consequences resulted in the aftermath of the catastrophes and all the accused were absolved. This media attitude to consider the State as a “killer,” the “catastrophe as a “murder” seems, indeed, to be only spectacular.

The real debate around the penal and administrative responsibility is just mentioned but never analysed and in the end, the guilty people are forgiven (almost in a Catholic way) because the public opinion has forgiven.

Figure 26: The accusations and the indignation in Sarno



Source: Personal elaboration from “Il Mattino” and “La Repubblica”, editions of 10 and 11/05/1998.

#### b. In Cerzeto

In the case of Cerzeto, the local and national press better analysed the medium and long-term consequences of the resettlement underlining the negative consequences of the displacement. According to the local daily “Calabria Ora” (31/12/2010), the New Town is a “*Cruel joke signed by Bertolaso*”, the Head of PC (**Figure 27** page 190). The local newspaper blames the central government because of the decision. It does not analyse the decision-making as a neutral process. The personification of the decision completely biases the discourse and creates a political opposition between the people who support the government and the ones who oppose it<sup>96</sup>.

<sup>96</sup> It is interesting to notice that this peculiarity is specific to the Italian case. In the aftermath of the Xynthia cyclon, the affected people promoted a legal action against the local government. The verdict is expected for autumn 2014. The opposition between the prosecution and the guilty party evidences a de-personification of politics and a total confidence in third-party judgement.



Figure 27: The institutions' bad taste



Source: “Calabria Ora” (31/12/2010).

It is interesting to notice how three years after the Cerzeto landslide, in the aftermath of L’Aquila earthquake, the local press in Calabria makes a parallel between the New Town in Cerzeto and the possible reconstruction in L’Aquila (following Figure 28), presenting the negative results of the relocation on the community cohesion (“Il Quotidiano”, 09/04/2009).

Figure 28: Cerzeto as L’Aquila



Source: Personal elaboration from “Il Quotidiano” (09/04/2009).

This is very rare in Italy because a total lack of trust in institutions.

Therefore, it is possible to consider that in a context dominated by criminal activities, the media did not want to attract attention on this specific area: moreover, the minimisation of the tragedy allowed the top-down decision because it displaced the public opinion on other events. In other words, the role of propaganda or the criticism in this specific case is evident and helps in the deconstruction of the phenomenon of environmentally induced displacement in Italy where the politicisation and the politics “*ad personam*”, make the debate burdened of preconceptions, and biased also the scientific reality. In addition, the protest, in fact shows a personification of the responsibilities.

The news channel TG3, focusing on the protests against the “delocalisation”, present all the people standing with banners against Bertolaso (See following **Figure 29**), the head of Civil Protection in 2005, considered among the population as the hero/the responsible of the resettlement.

**Figure 29: “Less power to Bertolaso”**



*Source: RAItèche. Available at: <http://www.teche.rai.it/decenni/00.html>, last access March 2014.*

The protests against the Prime Minister Berlusconi, in the case of Cerzeto, or against the local authorities in the case of Sarno reveal all the specificities of this Country, where the responsibilities are not clear (because of a lack of juridical framework) and the authorities shift their negligence. Through the lens on the political will to hide the responsibility, it is possible also to analyse the rhetoric over the fury of the nature, over

the “*mountains that take their revenge*” (“Il Mattino” 8/05/1998), “*the mountain is a murder*” (“La Repubblica” 7/05/1998) and “*the territory that sets a trap*” (“Calabria Ora” 10/03/2005).

Moreover, the construction of the new site (started in 2007) and the interdiction to the access to the “old” Cierzeto area, has been done not considering the fact that, not only 64% of houses were not hit by the landslide but also that the building not affected by the event belong to the historical patrimony of the village. This heritage was completely abandoned as mentioned by the Cierzeto local Association “Cavallerizzo Vive” that took a position totally against the delocalisation (following **Figure 30**), favouring instead the reconstruction or the restoration, and that reported to the Administrative Regional Court the Protezione Civile Nazionale decision in 2007.

They were helped by the Parliament Committee on the event created by some deputies that pointed out the speculation around the issue (Italia dei Valori, 2012). The local press generally supported the manifestation of the association, even if the case of Cierzeto seems to be completely absent from the national dailies. The local paper “Gazzettino del Sud” of 20/10/2009 claims that, “*Cavallerizzo has to live. The citizens are against the new town*”.

**Figure 30: Against the New Town**



Source: “Gazzettino del Sud” (20/10/2009).

The administrative court (sentences n. 03293/2010 and n. 06764/2008) disputes to the Protezione Civile Nazionale the fact that the new site goes against the Environmental Impact Assessment; moreover, the court claims that the cost is too high compared to the restoration one: only in this case national dailies report the news. Therefore, the paper “L’Unità” briefly presents the facts and the figures about the relocation, reporting the judgement of the administrative court (See following **Figure 31**) that declares that “*The New Town is costly and out of law*” (07/03/2008).

**Figure 31: The sentence**



Source: “L’Unità” (07/03/2008).

The Government Department responsible for the Environment and Historical buildings underlined (Protocollo n. 2337/P and 1373/P of 2009) that “*there is an absolute necessity to preserve the patrimony in the old settlement of Cavallerizzo in Cerzeto considering that the landslide hit only part of the village*” and refusing “*any demolition or substitution of the settlement.*”

The personification is the key issue of the blaming process done by media. The guilty parties are condemned without any regards to the collective responsibility and the prevision of future action to prevent other possible catastrophes. In this sense once individuated the responsible it is possible to forget the event waiting for a new scandal.



### *About fatalism and religious beliefs*

The general idea of the casuality of the catastrophic event can be also analysed considering a cultural approach to the nature and the territory. The religious beliefs deeply characterize Southern Italy and the local and national media seem to follow the patterns of religion and tradition to sensitise the spectators and the readers (following **Figure 32**).

This is why in the case of Sarno the firefighters on the helicopters are presented as “*Angels from the heaven*” (“La Repubblica” 7/05/1998) and the catastrophe as sort of “*Massacre of Lambs*” (“La Repubblica,” 12/05/1998).

**Figure 32: The “angels” against the “massacre” in Sarno**



Source: “La Repubblica” editions of 7<sup>th</sup> and 12/05/1998.

Nevertheless, this fatalistic attitude can be retraced beyond the religious metaphors. The fact that some people took shelter in the Cathedral of Sarno and survived to the landslide is seen as a miracle (**Figure 33**, page 195): “*The Cathedral is the last fortress*” titles “La Repubblica” (8/05/1998). “*They are in the church; they are alive...*” states “Il Mattino” (8/05/1889).

The religion is a strong feeling and the beliefs are reinforced between the survivors “the Anointed” who justify the catastrophe as a sort of “martyrdom.”

**Figure 33: The churches as a safe place**



*Source: "La Repubblica" (8/05/1998) and "Il Mattino" (8/05/1889).*

In the case of Cerzeto, the media present the role of the Church (through its representative) as a crucial actor in the construction of the community in the new town. This is why it is so important for the bishop to talk about the “new” Cerzeto (as presented by the local “Diritto di cronaca,” 26/04/2010; see following **Figure 34**).

The article presents, indeed, the bishop as the moderator between the citizens and the political institutions, showing how significant is the role of religion in the Italian context.

**Figure 34: The bishop as a moderator in Cerzeto**



*Source: "Diritto di Cronaca". Available at:*

*[http://www.dirittodicronaca.it/index.php?option=com\\_content&view=article&id=2392:il-vescovo-interviene-sulla-questione-qcavallerizzoq&catid=49:cronaca&Itemid=77](http://www.dirittodicronaca.it/index.php?option=com_content&view=article&id=2392:il-vescovo-interviene-sulla-questione-qcavallerizzoq&catid=49:cronaca&Itemid=77), last access March 2014.*



The media, as the mirror of society, present and transform the reality, reproducing stereotypes and creating or reinforcing cultural, political and religious beliefs. In the process of victimisation, no attention is given to the mobility of the people. In both cases, on the contrary, the immobility is underlined in a double sense.

The physical immobility “*people are trapped in the mud*” but also the moral immobility: “*people can’t escape to their destiny*,” “*people are captured in the political logics*”, and “*people are helpless face to the natural event*”. In this sense, a fatalistic attitude, but also an unsuccessful blaming process can take place and can reproduce in the public debates, justifying the lack of preventive measures, the lack of “ad hoc” measures for the displaced and the eventual “guilty parties.”

The media seem to perfectly interpretate and reproduce the mainstream approach to fatalism, blaming process and political propaganda. Even if it has not been possible to do a more accurate analysis about TV, it is possible to notice how important is in Italy the representation done by the media in the construction of the mainstreaming narrative surrounding a given phenomenon. The media became at the same time the mouthpiece for the protesting people, but also the main actors in the shaping the collective imaginary according to the political discourse.

### **III.3.b Making the memory a cultural heritage**

The importance of the collective memory and its physical representation can be traced in the work of Halbwachs (1992) who affirms that all the memories are formed and organized within a collective context, because all the experiences are shaped by the interactions between individuals.

#### ***The collective memorialisation***

The social sharing of a collective event shapes the representations of the people towards the event itself and helps to heal the wounds. However, it is very complex because the ruins of the landslide are still in plain sight as for the old hospital in Sarno (**Photo 9**, page 197) that has been completely abandoned, becoming an unsafe place dense of bad memories.

*a. In Sarno*

The memory as a cultural heritage, in the process of reconciliation and social reconstruction of the communities' identity, has been already pointed out by UNESCO (2010) and other scholars (among the others Rodwell, 2007). The cultural heritage and the “patrimonialisation” of a collective experience is a fundamental element in the recovery process immediately following a catastrophe. Researches have focused on the physical representation of the memory as a fundamental element to improve the collective grieving process in order to encompass the traumas (Sapikowski, 2012).

The memorialisation is a process aiming to satisfy the desire to honour the people who suffered or died during the catastrophic event and commemorate the event to exorcise it. Thus, the memorials can be considered a sort of “requiem in stone” as they have been defined by the US architect Libeskind (2004). His work is based on the representation of collective dramas. In the aftermath of the catastrophe in Sarno, different victim memorials were built, symbolic places where past and future cross between nostalgia and hope (Malafronte, 2002).

They became a place of memory where each year it is possible to commemorate the victims and remember the past collective trauma. This is because the commemorative monuments reveal the necessity of a collective grieving process in order to encompass the trauma (Sapikowski, 2012).

**Photo 9: The Villa Malta hospital in 2012**



*Source: Personal photo (Sarno, 2012).*

In fact, as noticed by Eyre, the memorials can be considered as one of a number of “*post-disaster rituals and symbols*” and there is a “*range of psychological, social and political issues associated with these aspects of the immediate post-impact and longer term rehabilitative stages of disaster*” (1999: 23).

The first is the one built in Viale Margherita (where 53 people died), presented in **Photo 10**, page 199: it represents a mudflow, swallowing a tree and three people, trying to help each other. Under the monument the Latin writing “*Naturae Furor*”, the “Fury of Nature”, with the names of all the victims of the landslide. It was built thanks to a special found of the City of Sarno for the recovery after the landslide.

This memorial carries messages of complex components: acknowledgement, naming and enumeration of all the 137 victims, compassion for the families who suffered a loss, recognition of the courage of the “martyrs” who helped the other and died, a physical description of the catastrophic event (the landslide), but also a call not to forget the victims.

This representation focalises on the viciousness of the nature face to the impotence of the humankind. The unavoidability of the catastrophe is, indeed, highlighted on the one hand to console the survivor but, on the other hand, also to arouse the attention on the fact that nobody is responsible for the catastrophe.

**Photo 10: Sarno's "5th May victims monument"**



*Source: Personal elaboration from personal photo (Sarno, 2012).*

Another commemorative stone, in Via Pedagnali, in the **Photo 11**, page 200, claims “137 victims, a lively memory, a delicate hope, the desire of rebirth.” It was donated by the Sport Association “US Calcio Intercompania”, but it seems very interesting to notice the importance of religious elements associated with civil associations (in this case a football club).

The theme of the martyrdom, the idea about the inescapability of the destiny, associated to the name of the victims, testify a culture rich of religious elements and fatalism. Moreover, the fact that the subscriber and the sponsor is a sport association can be an additional element to contextualise the weakness of the Italian local and national authorities and the consequent emergence of parallel institutions, such as the Catholic Church and the Sport Associations (mostly football ones), well symbolised in this memorial.

**Photo 11: The sport association's memorial**



*Source: Personal photo (Sarno, 2012).*

Another element of analysis can be the plate in the main square of Sarno, behind the City Hall. The square, previously called “Piazza della Stazione,” “Railway Station square,” has been renamed “Piazza 5 Maggio,” “5<sup>th</sup> of May square” in honour of the victims of the landslide (**Photo 12**, page 201). From the square a view on the “killer mountain,” the Pizzo d’Alvano Mountain, is a reminder of the event.



**Photo 12: The main square of the town renamed to commemorate the victims**



*Source: Personal elaboration from personal photo (Sarno, 2012).*

The collective memory and its representation become, therefore, standardised, common and homogeneous within the group that associate the memory to a specific place or monument. It constitutes a shared value that supports the common identity and the formation of a social cohesion within the group.

*b. In Cerzeto*

Differently from the case of Sarno, in the case of Cerzeto, where no memorial has been constructed in the aftermath of the landslide, because nobody died. The reconstruction of the collective identity and the process of remembering is much more intimate and corresponds to the personal feelings and considerations about the resettlement itself. The presence of the old settlement, standing over the new one (**Photo 13**, page 202), is, in this case, an interesting element of analysis. The past is always there, encumbering on the present and making a psychological elaboration of the event impossible. From the new settlement it is possible to see the old houses, partially destroyed, partially just abandoned, incumbent upon the life of the displaced that renew in each moment the pain of the detachment and the nostalgia.



**Photo 13: The old settlement of Cerzeto encumbering over the new one**



*Source: Personal photo (Cerzeto, 2012).*

Similarly, the old school bus, abandoned since the 7<sup>th</sup> of March 2005 in the lower part of Via degli Emigranti in Cerzeto, can be interpreted as physical barrier in the reconsideration of the present and in a positive approach to the future (following **Photo 14**).

**Photo 14: The abandoned school bus in Cerzeto**



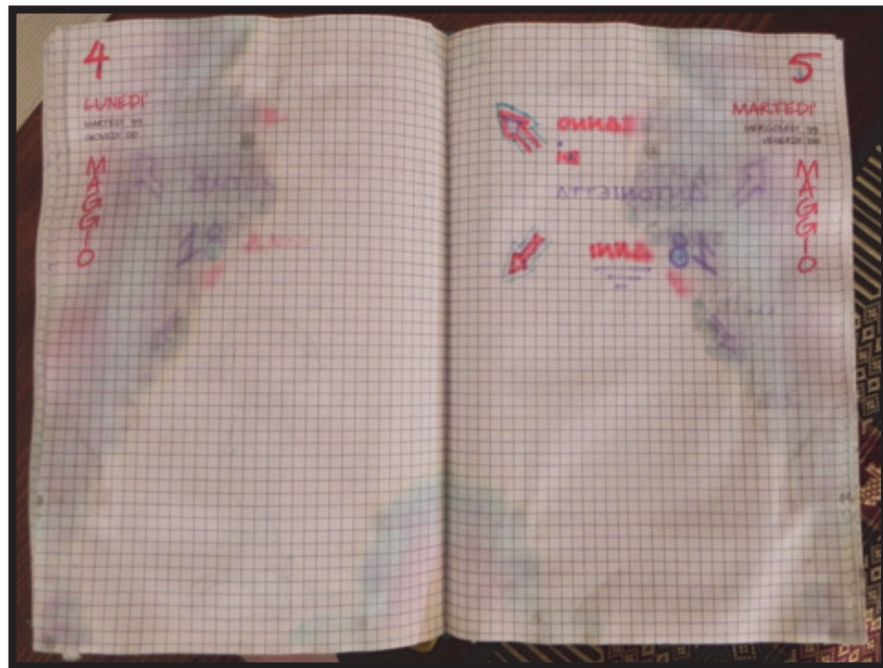
*Source: Personal photo (Cerzeto, 2012).*

### III.3.c The personal memorialisation

In addition to the collective elaboration of the memory, it is also interesting to consider the process of intimate remembering that always occurs at an individual level. Even if sometimes the personal memories are socially constructed (Wertsch, 2009), individuals use different tools in order to represent the past: symbols, drawings, photos and notes are, indeed, used to visualise, construct and represent the past.

For example, during an interview, one person (B), proudly showed me the school agenda of the year 1998, marked by the mud (following **Photo 15**). This heirloom represents a past world, an innocent childhood, completely upset by the catastrophe.

**Photo 15: The agenda of 1998**



*Source: Personal photo (Sarno, 2012).*

During the two-research observatory works, I asked individuals to represent the catastrophe and its consequent mobility. Nobody in Cerzeto decided to participate to this experimentation and only seven people in Sarno were happy to do it. The drawings are a good way to consider the personal elaboration of a social phenomenon and they can be useful in order to interpret the intimate memory about a collective event (Abric, 1994).

## *The mental maps*

People who accepted to draw their representation of the catastrophe actually represented their personal geography of the event, associated to their personal sensations, filtered by time, and the entity of the catastrophic event. Already in 1976, Frémont considered, that the space is constituted by different places, socially and generally determined (the house, the school, the street), but that can be also considered through the lens of the people who live, use and populate these space.

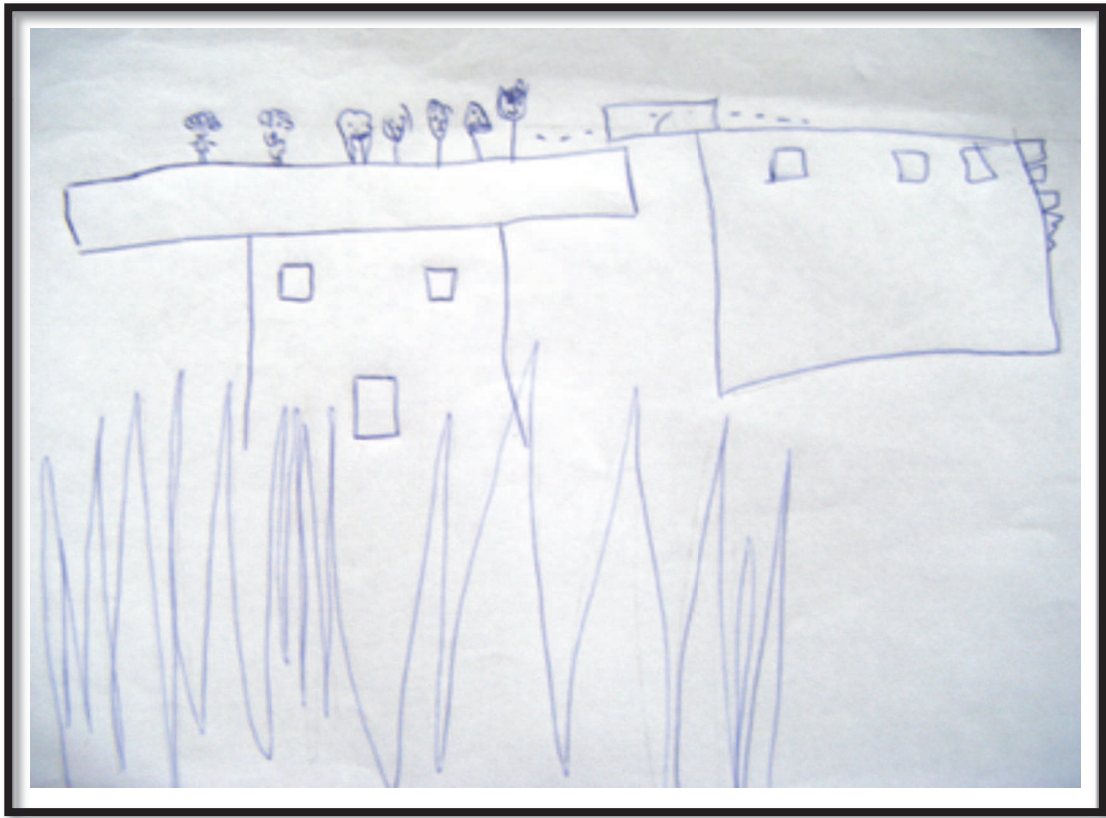
The decision to ask to people to represent their experience stands because I think that drawings can help people to freely express their emotions allowing me to have a deeper insight of their condition in the moment when the catastrophe occurred. In fact, from the mere physical sensation, the mental map is a personal elaboration of the sensation, created by the memories, the other temporal and spatial experiences that are modified by the catastrophe, considering five different patterns (Lynch, 1960) that can differ from one person to another:

- Paths: the streets used by people to move;
- Edges: walls, buildings, and shorelines;
- Districts: distinguished by some identity or character;
- Nodes: focal points;
- Landmarks: reference points in the territory.

Thus, we can categorise the elements that constitute those mental map in forced movements, negative emotions, natural and anthropic elements.

About the first mental map **Drawing 6** (page 205), (K., Sarno) says, *“We put some beams between the roofs, for 5 or 6 times to reach a less devastated area. Under our buildings, the mud has already invaded everything. I was a little boy when the catastrophe occurred and I escaped with my relatives. I was very scared.”* In this drawing, the crucial element is the mobility as a last resort. People have to cope with the event in a hostile environment. The beam between the roofs can in this sense not only be considered as a physical tool allowing the flight, but also the bridge that allowed the people to move towards a safer place, to orient them forward the future.

**Drawing 6: Between the roofs**



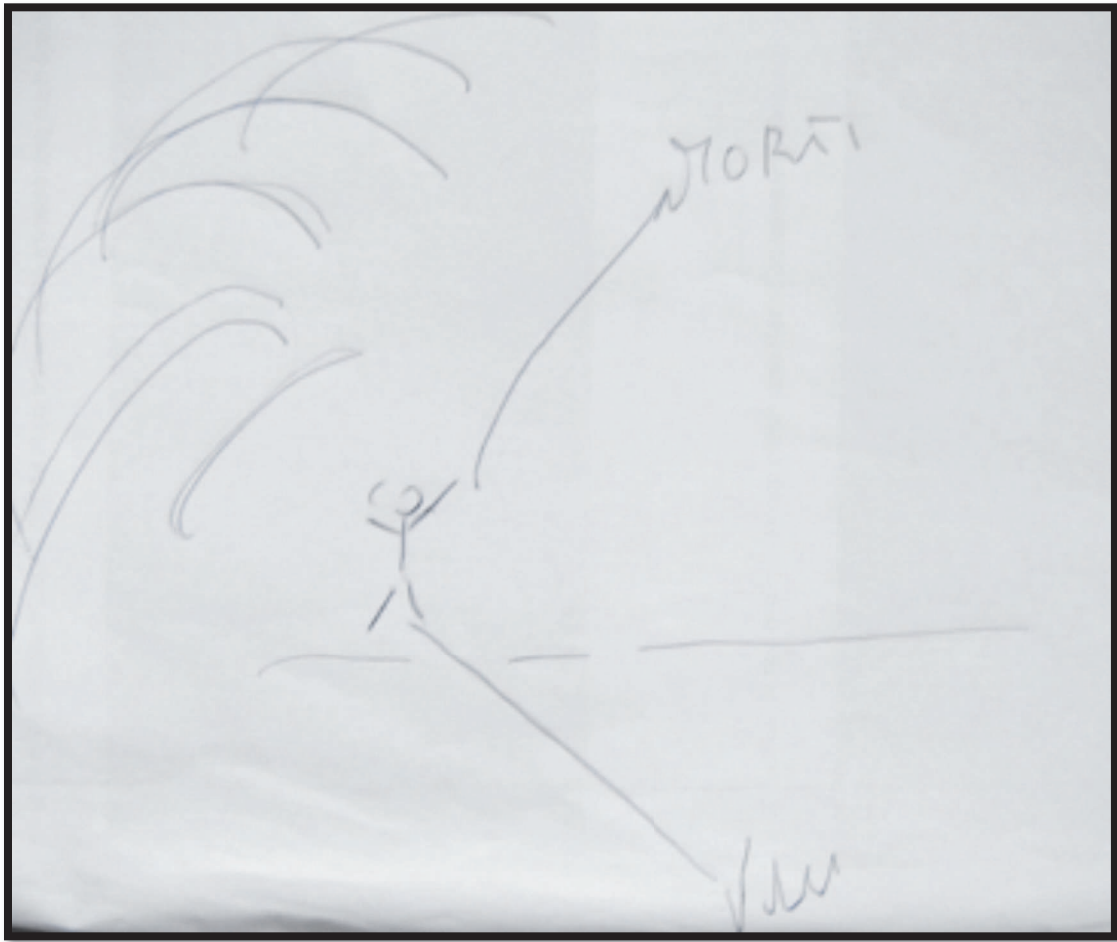
*Source: Drawing collected during the fieldwork (2012).*

In **Drawing 7** (page 206), I. (Sarno), synthetically but explicitly says, “*The mud ran after you, if you stayed you were dead, if you ran, faster than the mud, you were alive.*” (“*Morti-Vivi*”, meanings “Dead-Alive”), showing the importance of the direction when considering the strategy of mobility in the aftermath of a catastrophe.

The mobility is indeed interpreted as a last resort to survive. The previous knowledge about the territory, by contrast, seems to be the only factor that can enhance the survival. In this respect, one can reconsider the evacuation plans: the knowledge about the territory and about the escape routes are crucial factors when considering the individuals’ strategy to face the catastrophe.



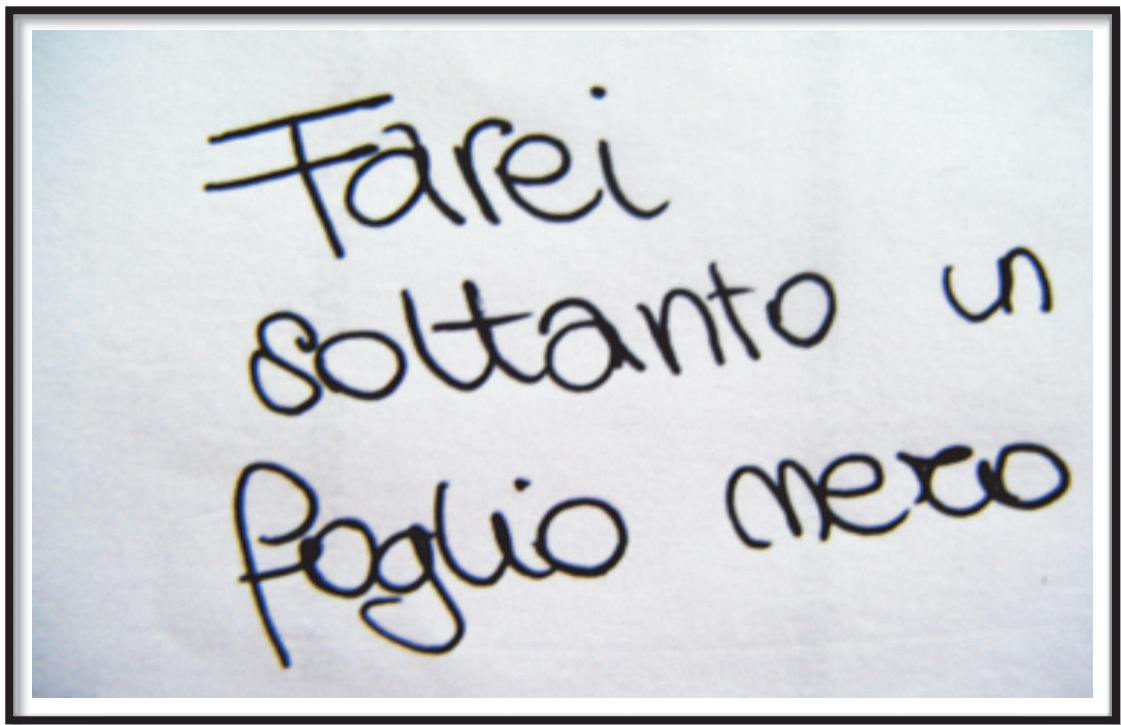
**Drawing 7: The crucial directions**



*Source: Drawing collected during the fieldwork (Sarno, 2012).*

B. (Sarno) during the interview took the paper (**Drawing 8**, page 207) and wrote “*Farei soltanto un foglio nero*”, meanings “*I would only colour the paper in black*”, briefly showing her desperation even after 14 years. The black can be considered as the willing of oblivion caused by the fact that the memory is too hard to be stimulated and because the catastrophe still represents a deep wound.

Drawing 8: The black sheet



Source: Drawing collected during the fieldwork (Sarno, 2012).

C. (Sarno), claims **Drawing 9**, page 208. *“The mountains are collapsing. I escaped from my house with my first son, while my husband and my second son remained behind to control the house and help the neighbours: they died in this way.”* The husband and the second son are represented as martyrs.

Two of the four stick men pander to the mud falling from the mountain. The other two stick-characters (a man and a woman) go away towards the plain, towards the real life, symbolised by the cars and the lake with the swans, opposed to the nightmare of the catastrophe. The lake with the swan (that does not exist in reality near Sarno) can be interpreted as the “harmony” suddenly perturbed by the landslide.



**Drawing 9: The family**

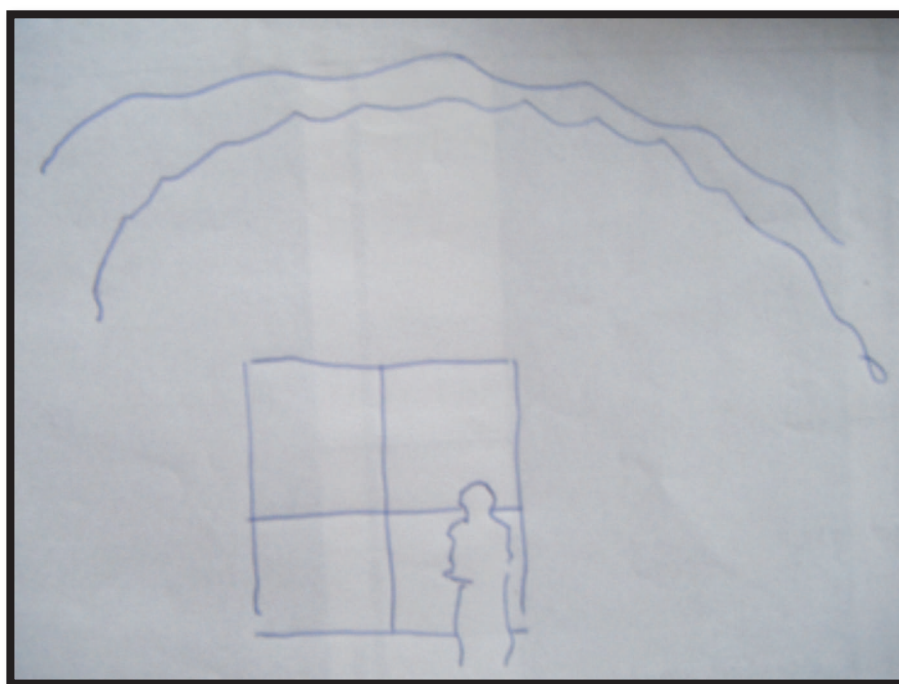


*Source: Drawing collected during the fieldwork (Sarno, 2012).*

A. (Sarno), in **Drawing 10**, page 209, comments, *“I was in my kitchen, behind the windows, looking at the rain outside and cooking. I heard a big bang, and then I saw a tsunami of mud. I was scared.”*

The feeling to have been surprised during the daily activity – in this case, the cooking – without premonition is seen as a sort of meddling in the private life. An exogenous event deeply spoils the intimate life of entire families, obliged to abandon their houses for the last time.

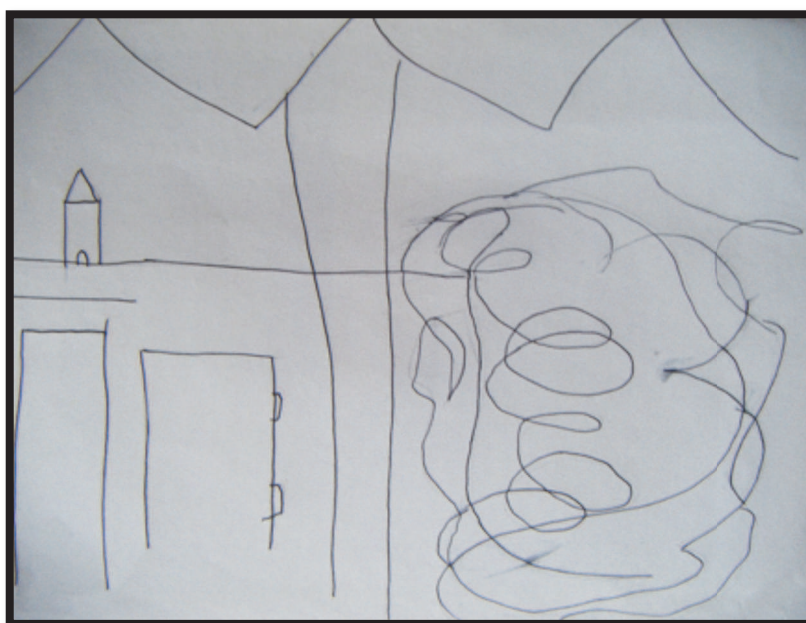
**Drawing 10: The window**



*Source: Drawing collected during the fieldwork (Sarno, 2012).*

J. (Sarno) claims, “As you can see... from the mountain came down a river of mud. Our houses were completely covered by it” in the following **Drawing 11**.

**Drawing 11: The mud**

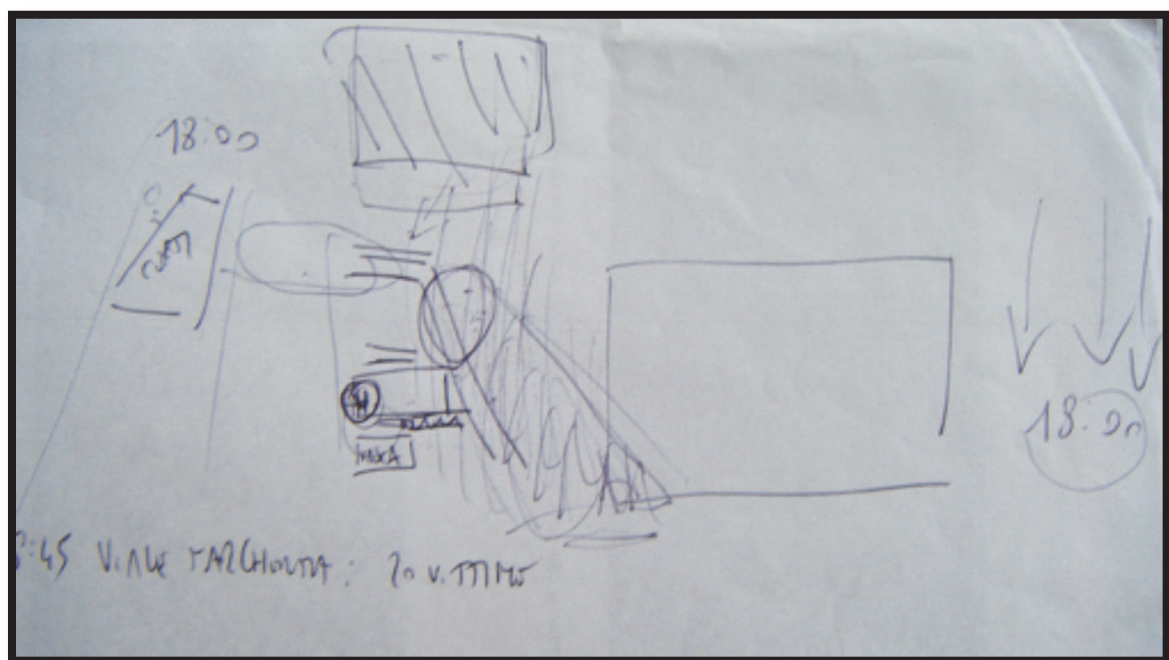


*Source: Drawing collected during the fieldwork (Sarno, 2012).*

The feeling to be trapped can be interpreted in a physical way in the sense that people could not go away, but also considering that the fact that the houses are occluded for the trapped people, as is their future. Differently, and more “scientific” is the description of the following **Drawing 12**.

F. (Sarno), in his drawing, focalises its attention on Viale Margherita reporting, “Between 6 p.m. and 6.45 p.m., in Viale Margherita there were 20 victims. The problem was that the canalisation was completely blocked and so, the canals created a sort of dam that overflowed.” In the drawing, the interviewee reports the hours of the different mudflows and the number of the victims, according to his perception and his memory.

**Drawing 12: The event succession**



*Source: Drawing collected during the fieldwork (Sarno, 2012).*

The drawings are a good example to show how a deep trauma is interiorized by the community and how a catastrophic event leaves traces not only on the landscape, but also on the mentality and the behaviours of the concerned people, generating a sort of “mythology of the catastrophe”, that became a common and shared moment of a community. Through the representation of the catastrophe, it is possible to notice how this huge trauma in the collective history of a community can shape the memories, and how it can be still persistent even after 14 years. In this sense, the displaced

communities share a “before” and an “after” the catastrophe, they share a common sensation of having lost everything. However, what has been the real or the perceived impact of the catastrophe?

The analysis of the personal representation about a collective trauma is useful in the understanding of the environmentally induced displacement phenomenon. People draw their mobility, but they never mention their displacement, showing more the environmental event rather than the real consequences on the lived space. It shows the complete integration of the mainstream approach in the representation of the event done by media.

This first element can be considered through the lens of the importance that Italian media have in the shaping of the collective imaginary. This result can be also analysed considering the importance of self-representation: people prefer to consider themselves victims, because they associate their condition to something they already know, and do not associate their situation to a mobility phenomenon just because they are not used to. This element reveals the importance of the collective narrative in the self-representation of a single category and the political claim associated to.

\*\*\*

The representation of the catastrophes of Sarno and Cerzeto and their related mobility have been differently conceptualised and described, shaping the public opinion and intimate memories. In the aim to understand the general approach in the definitions of the environmentally induced displacement phenomenon, it has been essential to reconsider the role of media and of memorials, but also of private memorialisation, in order to understand which are the recurrent narratives and description about collective trauma linked to a catastrophe and its consequent mobility.

These observations have been necessary in the verification of a total deny of the phenomenon of environmentally induced displacement in the cases of Sarno and Cerzeto both in the public debate and in the private memory.

Firstly, I showed how, in both cases, in the aftermath of the catastrophes, the media stressed their attention on the emotions of the “victims” and on the evidences of the “survivors”, whose suffering is spectacularised to sensitise the public through crude

images and detailed descriptions. In addition to that, the media underlined non-living elements that triggered the catastrophe: the natural hazard, the rain, the mud, the mountain, the aqueduct are recurrent issues that completely deny the human responsibility in the evolution of the natural disaster in catastrophe, underlining a very fatalist attitude of the population filtered by the interpretation of the media.

Furthermore, after having presented the communities as “victims,” denying their level of agency, the media play the role of divulgator of the governmental propaganda. They present the authorities as the saviours personifying the rescues and the problem solving. In the same sense, media try to find a scapegoat and start the blaming process, personifying the guilt.

This deeper analysis confirms the previous finding done for the Italian general example. The observation of the media processing of Sarno and Cerzeto denies the spontaneous strategy of the people or the impacts of the resettlement and generally focuses on short-term consequences. This attitude reflects a minimisation of the phenomenon and a negligence of the long-term impacts of mobility on the affected communities.

Secondly, I shed light on the collective memorialisation of the catastrophe considering both a private (the drawings) and a public level (the monuments). If in Sarno it assumed a huge importance at collective level in order to honour the victims, in the case of Cerzeto the public memory about the resettlement has been overlooked. This is because the local, regional and national authorities esteem that the resettlement is a fresh start and that the new life is better than the past.

According to this top-down vision there is nothing to commemorate. Contrarily, in the case of Sarno, the role of nature taking its revenge and the idea of the martyrdom is essential in the representation of the catastrophe and its impacts on population. Also in the process of collective memorialisation, it is possible to observe a procedure of deprivation of responsibility and an attribution of the fault to the hazard and the fate.

Thirdly, people seem to have integrated this public discourse about the fate and the natural hazard and about the misrecognition of mobility. In the drawings of the people in Sarno the “natural” elements have a crucial role (the mountain, the mud), but, the patterns of the mobility/immobility they experimented, indeed, figure in their representation. Even if the people assume their role of victim, denying their status of displaced, they represent their level of agency, their previous vulnerability but also reveal

a difficult relation with the deaths and the losses, showing how the connection with the living space and the past life is important.

In other words, it is possible to infer that the collective representation overlooks the phenomenon of environmentally induced displacement focusing on the victims. The intimate memory denies the phenomenon because it represents an unbridgeable wound.

The phenomenon of environmentally induced displacement is, indeed, neglected in the public discourse and even if people represent their patterns of mobility, they never associate them to that issue because of a flattening of the memory on the mainstream discourse.

After having individuated this first finding considering the representation, it is interesting to deeply analyse the perception of the people about the catastrophe and the related mobility, its social and physical impacts and the role of the State in the displacements.



### **III. 4 The perceptions about the impacts of the two catastrophes**

#### **Introduction**

In the previous chapters, I have individuated the specificities of the two exploratory fieldworks and traced their relevance in term of exemplification in the investigation about the environmental degradation-migration nexus. In addition to that, I have illustrated the process of public and private representation and memorialisation related to the landslides and their consequent mobility.

Therefore, in order to have a clearer idea about the conceptualisation of the phenomenon of environmentally induced displacement in Italy, through the examples from the fieldwork, I can now proceed to an investigation about the perceptions of the people involved in the catastrophes as far as the event and its related mobility are concerned. The perceptions of the two communities about the phenomenon constitute a crucial element of analysis of the coverage and the treatment of the issue in Italy. This is because through perceptions it is possible to recognise the integration or the opposition to the mainstream perspective about the definition of the phenomenon or categories.

The two displaced communities present similar socio-economic structures, similar environmental vulnerabilities and have been hit by similar hazardous events. However, the prevention policies, the answers to the catastrophe, the adaptive strategies to face the event, the mobility that it produced, and their long-term consequences are very different. This is why, I analyse all the perceptions of the catastrophes, of their social impacts and of the institutional response through the voice of the people involved in the catastrophe. All the elements of comparison from the illustrative exploratory fieldworks are summarised in **Table 20**, page 215.

Again, it is essential to notice how the perceptions of the interviewees (22 in total) have not the presumption to be general. This analysis can be only considered as an illustration of the different opinions of the people I met during my fieldwork. From these observations, it is indeed possible to have an overview about the conceptualisation of a given phenomenon, its narrative and the public discourse that is built and reproduced.

**Table 20: Summary of the analysed perception**

Perception about...	In SARNO			In CERZETO		
	Anthropic	Natural	Both	Anthropic	Natural	Both
<b>CAUSES</b>	5	3	3	2	9	0
<b>VULNERABILITY</b>	Felt vulnerable		Did not feel vulnerable	Felt vulnerable		Did not feel vulnerable
	1		10	3		8
<b>LOSSES</b>	Loss everything		Lost something	Loss everything		Lost something
	11		0	6		5
<b>MEMBERSHIP and MORAL</b>	Positive		Negative	Positive		Negative
	0		11	3		8
<b>THE EMERGENCY MANAGEMENT</b>	Positive		Negative	Positive		Negative
	0		11	11		0
<b>COMPENSATION</b>	Positive	Negative	Medium	Positive	Negative	Medium
	0	11	0	4	1	6
<b>KIND of DISPLACEMENT</b>	Temporary		Definitive	Temporary		Definitive
	5		6	0		11
<b>RELOCATION or RESETTLEMENT</b>	Positive		Negative	Positive		Negative
	0		11	3		9

*Source: Personal elaboration.*

In this chapter I will leave the interviewees speak in order to present a complete scenario about the interpretation of the reality shaped in the medium and the long-term and point out the viewpoint of the people I met.

In the first part of this chapter, I discuss about the perceptions of the causes and the consequences of the catastrophe. Secondly, I show the different interpretations of the

impacts of the catastrophe in terms of material and immaterial goods. Finally, I analyse the perceptions about the institutional responses to the catastrophe on the short and long-term, and the repercussions that those political choices had on population and on territorial management. The analysis of the perception is a step further about the examination of the definition of the phenomenon of environmentally induced displacement in the Global North. These comments are done considering the evidence of the observations from the fieldwork contextualised into a theoretical framework helpful in the study of these findings.

The elements of this analysis are presented in **Annex III**, page 388.

### **III.4.a About the causes of the landslides and the vulnerability**

The perception about the causes and the consequences of the two landslides are essential in order to understand which are the landmarks of a given community in a given space, and how a catastrophic event modifies them. The causes and the consequences on the physical and social space of the two communities are, analysed in order to better understand which are the current interpretations about environmentally induced displacement in the two areas in order to have a deeper insight on the different conceptualisations about the phenomenon in these two contexts.

The catastrophe creates or shapes the individual and collective memory: the collective memory, in fact, can reinforce during the exile, where a spatial fracture is experienced (between the place where the community lives and the ancient settlement). The ancient settlement is often inaccessible because of the landslide and it becomes the place and the space of the individual and the collective feelings. The physical and temporal alterations change the space references (Hornsby and Egenhofer, 2000): the streets, the houses, the hospitals, and the schools.

These structural elements are not just “places,” in fact; they represent the points of reference for an individual and a community not only in an external space, namely the physical territory, but also in an internal space, the space of the emotions and the private relation with the territory, the mental map of each person.

One of the interviewed psychologists says, “*The crisis is as a mirror for the community that recognise its past error.*” The catastrophic event has a temporal

connotation, there is a “before” and an “after” but it also modifies the territory, the society and the community, creating a deep wound. This wound, caused by the catastrophes, generates emotional feelings revealing a self-consciousness of failure but also complex social relations (Cates, 2003). According to Nussbaum, in fact the emotions are *“forms of evaluative judgment that ascribe to certain things and persons outside a person’s own control great importance for the person’s own flourishing. Emotions are thus, in effect, acknowledgments of neediness and lack of self-sufficiency”* (1997: 22).

In fact, even if emotions received poor attention in the scientific production, in the last decades several streams of academic reflection converged to give more scientific substance to this field of investigation. Emotions can be very fragmented, because they are conform to individual feelings, but can be also collective and participated, mostly within a community that experiences some traumatic event.

Moreover, emotions can be also very dynamic and variable according to time and space and can evolve with the individual experiences influencing toughs and judgements. In this chapter, I analyse how the vulnerability is conceived and at what level. Moreover, I investigate the thoughts about extreme event frequency and consequences. This is done in order to have a more comprehensive understanding of catastrophe related to vulnerability perception, and its related mobility.

### ***The causes of the landslides***

When considering the causes of the catastrophe, the responses of the interviewees generally rotate around two axes: a natural fatality; the fact that the event has been provoked by humans and it could be avoided. Globally speaking, 7 people consider the anthropic cause, 11 the natural one, while 3 people admit a mix between the two elements.

In the case of Sarno, the individuals seem to be more aware about natural and anthropic causes that provoked or enhanced the catastrophes: 3 interviewees out 11 described the catastrophe as natural disaster, 5 people try to underline the “human-activity” component of the landslide, and 3 people focused on the mix of both. In their answers to the questions *“Do you know the cause of the catastrophe?”*, *“What/Who provoked it?”* and *“Which other factors beside natural ones enhanced the catastrophe?”*, Sarno’s interviewees, claim that the extreme rain has crossed with other factors, such as the fact that the canalisation was not clean, the presence of illegal buildings, and the

incorrect management of the event “*The illegal houses pressed the environment, making it more fragile*”, claims C., (Sarno).

Thus, the mix of all these elements transformed the natural disaster in catastrophe: “*The mountain collapsed because of the rain, but the mayor and the other institution enhanced the effects of this cataclysm*” (A., Sarno). In this affirmation, it is possible to recognise that the “anthropic” cause is often confused with the blaming process. The personification of the guilty part is recognised as an amplifying factor showing a poor conceptualisation and analysis concerning the collective responsibilities about the catastrophe, but also an enormous confusion about the concept of exposition and political responses.

On the contrary, in the case of Cerzeto, 9 people out 11 think that the extreme rain has been the major cause of the landslide, and only 2 attribute it to the aqueduct and to the illegal buildings the pressure made on the slope: “*The new houses were illegal and dangerous*” (U. Cerzeto); “*The aqueduct was old and badly maintained*” (V., Cerzeto). In the case of Cerzeto, even if nature is the most mentioned cause (in its declination: rain, mountain, environment) the institutions are not considered as the “cause” of the catastrophe because of a good management and an operational early-warning system.

The experts and the associations, before the catastrophes, already claimed the risk around the huge territorial exploitation in the two areas, describing possible catastrophic scenarios. “*We knew, institutions knew: they waited for the confirmation*” (Legambiente secretary). The authorities deny their role in the prevention of the catastrophe, and associate it to a previous political party that apparently provoked the territorial misuse “*The old management caused the catastrophe. We have repaired all the damages caused by the event*” (The Mayor of Cerzeto). For both cases, the National Civil Protection accuses the local politicians to be not able to manage the environment and to cause, for this reason, the catastrophe.

This accusation allowed justifying the massive intervention at a national level in a local crisis resulting in a top-down approach. In the case of Sarno, through this approach, the National Civil Protection and the government confined the responsibility to the local level meaning to exclude the national responsibilities in the lack of management and coordination of rescues. It is interesting to notice that for the same kind of catastrophe the two approaches have been completely different even if the result is the same: the central government justifies its action blaming the inefficiency of the local level.

Sarno local authorities, such as ARCADIS, and AdB, claim an absence of national coordinate actions and consider difficult to perceive the catastrophe without any consultation with experts and national institutions. In the case of Cerzeto, local authorities were deeply aware about the risk (a research centre situated in Florence was monitoring the village), but they were also waiting for top-down interventions.

### ***The vulnerability***

Because of an unbalanced power relation between environment and human activities, the interviewees, rarely felt vulnerable before the catastrophe because *“We always lived there”* (P. Cerzeto); *“Even if we knew about the possibility of a mudflow, because they had already occurred, we did not expect such a catastrophic landslide”* (G., Sarno). When asked, *“Did you perceive the danger, the risk of this catastrophe?”* and *“Did you feel vulnerable?”* only 1 person in Sarno answered, “yes”, because of his previous knowledge and studies on the territory *“If we had the historic documents, we would have known about the landslides. Historia magistrae vitae, isn’t it?”* (C., Sarno).

Where in Cerzeto, because of a previous monitoring and more recent landslides (during the ‘80s and ‘90s), 8 people out of 11 answered that they perceived the possibility of an extreme event, but only 3 felt vulnerable. The others answered, *“I did not feel vulnerable even if I knew that something would happen”* (L. Cerzeto). Apart from a general fatalistic attitude towards the hazards, it is also interesting to notice that for the population vulnerability is a misleading concept in the colloquial jargon: *“Yes, I felt vulnerable: I had only a pyjama and nothing more”* (H., Sarno); *“I did not feel vulnerable: Sarno is an old town!”* (F., Sarno).

In both cases, people traumatically rethink to the two events: *“I thought I was in Dante’s hell”* (C., Sarno); *“It has been a tragedy”* (D., Sarno); *“A drama”* (M., Cerzeto); *“The biggest shock of my life”* (P., Cerzeto). Therefore, the environmental risk crossed with socio-economic context can enhance the vulnerability of a community and can make the population more prone to natural hazard that can result in fatal injuries or economic losses. The fact that institutions, associations and experts knew while largely communities were not aware shows how important communication is in the prevention of catastrophic events. The communication of the risks seems to be relevant not only in the



prevention but also in the strategy that people can adopt to face a catastrophe in order to prevent “autonomous” displacement or the costly forced resettlements.

It is interesting how, in both cases, the mountain of Pizzo d’Alvano for Sarno and, generally, the Calabrian Apennine chain for Cerzeto, have a crucial role in the collective imagination of the local communities, testifying a deep relation with the natural ecosystem. In fact, the “mountain” has always been a source of economic activities, but also a source of symbolic individual and collective imagination constructed during time well synthetized by S. (Cierzeto) “*The Mountain asserts itself.*”

Nonetheless, until the catastrophe, the human community had been the powerful part in this human-environment relation: when the catastrophe occurs, the community realises the destructive force of the counterpart, experiencing a shock that creates a new power relation.

#### **III.4.b About the losses**

In the aim of the analysis of perception of the mobility in the aftermath of the landslides for the two communities, it is possible to say that the impact of the catastrophe on the two communities had a double effect. In fact, one can consider the impact on material goods, but also on the sense of belonging to the two communities.

One interviewee in Cerzeto claims “*This is not my village; this is not my home.*” Accordingly, in Sarno, another says “*It is not the same: we have lost our community*” (G., Sarno). This analogy shows that the new space seems to be only a new creation of the old settlement in a place more or less far and more or less strange where the feeling of social cohesion and the intimate identity has disappeared (Leclerc-Olive, 2003).

The collective trauma and the consequent displacement, in addition, can generate nostalgia, often supported by a media, journalistic and external vision incline to victimise the community involved in the catastrophe, often without any consideration about the period that follows the emergency.

### *The material losses*

Population implicated in the catastrophes often are cut out, and cannot manage independently the abandoning of their goods/houses/cropland. In this sense, the catastrophe and the fear of death and destruction, the forced escape, represent a shocking event for everybody: people do not have the reflex to take material goods (money, documents), unless they are evacuated and prevented about their displacement (temporary or long-term).

When asked, *“What did you bring with you?”* Sarno individuals generally answered, *“Nothing”* (G., Sarno); moreover, they told me about the difficulties for the days that followed the catastrophe because they did not have documents, money, nor other clothes: *“I wore only a nightgown, and while I was escaping I lost also my slippers”* (D., Sarno). For all the involved Sarno population it was often impossible to recover material goods even after the event, because of the mud, which dried out provoking the destruction of goods even within the houses.

On the contrary, in the case of Cerzeto even if the population received an early warning alarm they lost lot of material goods, because of the impossibility to come back in their houses due to the new settlement. They still have the perception that sometime they would re-take all their belongings *“When I escaped I had only my trousers; all my life is still in that house”* says O. (Certzeto) pointing at the hill. Some other people, who lived near to Via degli Emigranti, thanks to the intervention of firemen, in the days that followed the catastrophe, managed to come back and to take their belongings *“I took all my jewellery: years and years of sacrifices!”* (L., Certzeto). Generally, they only took money and clothes for a few days.

The answers to the question, *“What did you think when you abandoned your house/your goods/your cropland?”* become very interesting to understand the damages to capital of the population according to their previous status and profession. In Sarno, where the displacement has been completely disorganised and sudden, generally people say, *“I thought I was losing everything, my house and my life”* (C., Sarno).

The desperation of that moment is stronger for who had properties or economic activities in the areas hit by the catastrophe *“I lost my husband and all the crops* (D., Sarno), *“I was losing my delicatessen shop”* (I., Sarno). One woman, who was 14 year old when the catastrophe occurred, told me, *“I was afraid of having lost all my books, I had a test the following day”* (B., Sarno).

One other woman told me, *“I was losing all my roots”* (C., Sarno). In the case of Cerzeto, all people answered, *“I thought I would come back”* (M., Cerzeto): hope is a behaviour that is not present in the case of Sarno. People, in fact, seem to feel abandoned by institution, and feel completely vulnerable to the catastrophe.

When asked, *“Which have been the losses or the effective damages to your goods?”* a woman answered, *“We had to start everything again”* (H., Sarno); *“We had nothing anymore”* (B., Sarno). *“I have lost everything”* (C., Sarno), so, it is not just a feeling towards material goods, but also, towards the life of a family, a household, a community built around a house, a place, a district, a business and a space.

This is why a woman told me, *“My house hasn't been totally destroyed. My home and my family, were”* (D., Sarno); and another, *“I don't care about the house. I lost my husband!”* (G., Sarno). The material losses, crossed with the immaterial values associated to them, testify how deep the wound in the communities is. The material goods seem to be only the metaphors of the past and of the previous life.

In the case of Cerzeto, the feeling is certainly different, because there were no injuries or victims among the people, but the feeling of loss towards its own house is equally tangible: *“I have lost everything. I have lost my house, but I found another one”* (L., Cerzeto); *“I have lost my home, and all the things kept in it”* (R., Cerzeto).

Moreover, it is evident that the people, who had economic activities, suffered the losses with a particular attention to the sacrifices they had to make in order to build and maintain their activities during the years. For example the delicatessen owner, the breeder in Sarno, the pizza maker or the supermarket owner in Cerzeto: *“I have lost all the merchandise: how to be really reimbursed for a life spent in that shop?”* (V., Sarno); *“I have lost all my cows; for years I have nourished them and took care of them.”* (S., Sarno), such as *“I have lost the wood-oven, the pizzeria, and all the rest, but I haven't lost my expertise”* (Q., Cerzeto), and *“I have lost my supermarket, the house and wares. It is very complicated to start over again”* (V., Cerzeto).

These quotations testify the importance of the previous capital that creates a bias in the perception of the damages.

Thus, I can underline how the losses, expressed by the interviewees, wherever material or immaterial seem to be the common point of both communities. Far to be specific to the Italian case this perception of deprivation is usually associated to all displacements.

### *The immaterial losses*

A material good, such as a house, a street and an oak for a person do not mean their price. They have a value according to the sentiment that the people feel for that precise good: this is why, obviously, one's house is different from another's, because the memories and the sentiments it contains. Apart from the territory, in fact people feel sentiments towards the object-house, because its represents the more intimate material organisation of the man over a given space.

The analysis of the intimate space is useful, in order to understand how people perceive the catastrophe, the destruction that it provoked and its consequent mobility. The house, and then the home can be considered as the place where the personal identity is expressed<sup>97</sup>. The feeling of belonging and to be at home is an individual factor and it can create territorial identities: places in this sense can be subjective, but often, when a traumatic event occurs, places become the space of collective feelings of people that mutually reinforce their memory and their emotion. *"The old oak has been destroyed. They planted another one. But it is so little!"* (G., Sarno) (following **Photo 16**).

**Photo 16: The "new" oak among the "new" buildings in Sarno**



*Source: Personal photo (2012).*

---

<sup>97</sup> In this sense, it is possible to analyse the works of Guérin-Pace and Filippova (2008) that link territory and identity in a geographic and demographic perspective.

The partial or the total privation of that good, that kept affections, feelings, realisations, make individuals redefine this object not only in material terms, but according to their emotional involvement: the houses, in which families have spent years, have often been built by the ancestors, or with the money earned during the emigration. For this reason the perception of “property” is very strong being in those two “traditional” contexts: the property is not only the place of the familiar memories, but also the expression of the socio-cultural background, expressing the family status, structuring the relation with the others members of the community.

According to the same principle, the construction of a community around a place is strictly linked with the feeling of membership in a given space in a temporal and historical perspective. It is interesting to notice an article of 2010 of the local “Il Quotidiano” (19/08/2010), titled “*What being a village ‘without’ means?*” (following **Figure 35**). In this article, all the features of “loss” in Cavallerizzo are evidenced: the loss of the old houses, the loss of the previous life, and the loss of hope.

**Figure 35: “What being a village ‘without’ means”**



Source: “*Il Quotidiano*” (19/08/2010).

The word “nostalgia” has a Greek origin. It comes from “*nis*,” meaning “homecoming” and “*algos*,” meaning pain. The use of this word seems to be very appropriate when describing communities that lost everything and cannot come back in their previous settlements. In the case of the two communities, the imagination creates a distance from the real and contemporary life in the new settlements. I interpreted the name of the new café in Cerzeto: the “New Life” (**Photo 17**, page 225) accordingly.

**Photo 17: The café of the “new” Cerzeto: the “New Life Café”**



*Source: Personal photo (2012).*

### ***The psychosocial impacts and effects on social cohesion***

The life of the communities of Sarno and Cerzeto has been surely modified because of the two landslides: the social structures, in fact, appear completely different as far as community experiences are concerned. In the case of Sarno, apart from the emergency phase, in which everyone has collaborated to help the others, in the long period the feeling of aggregation has almost completely disappeared. The experienced catastrophe shocked and influenced the lives of the people concerned.

When I asked, “*How did your life change after the catastrophe?*” people answered differently, but generally they externalised a deep trauma: “*I am not the same*” (G., Sarno); “*My life totally changed. I had a second life*” (H., Sarno); “*I lost everything. My family, my house... I still wonder why; this is not a new life; this is not a life*” (E., Sarno). In the case of Sarno, many women had to redefine their social role after becoming widows.

Many of them had economic difficulties and for this reason the Province promoted for almost five years a programme to support unmarried woman and widows; the Sport centre was reconstructed and some women could work there as secretaries or attendants: M. (Sarno) told me, “*I went there because I needed it, but I was ashamed. My husband and my son*



would never have approved it!” (D., Sarno). The “honour” and the fear to be judged as someone who was “selling” her dead husband, or as a “rogue,” did not make the programme successful. In the case of Sarno, mostly in the areas of Viale Margherita, and the district of Episcopio many people died, others have been absent for years because of their displacement in other villages, others were isolated because of the feeling of deprivation, others would not come back because of the negative memories. This is what interviewees felt when they, freely, narrated their perception about the social losses of the community.

In Cerzeto, because of a deeper traditional and cultural belonging to the community, individuals suffered even more this feeling of loss and disorientation. As we have already mentioned, the old village of Cerzeto was built considering traditional neighbourhood relations, developed not only in a given space or territory or district, but in a given portion of street or square, the *gjitonje* (built around a chapel, a grocery shop, a cellar, and a traditional oven).

Following **Figure 36** shows a critical article concerning the specific traditions that, because of the resettlement, will be lost (“*Il Quotidiano*,” 12/09/2009). The article points out how, because of the lack of the traditional housing, all the relations within the community will be at risk.

**Figure 36: “In the new houses no gjitonje”**



Source: “*Il Quotidiano*”, 12/09/2009.

Nowadays, the new settlement does not satisfy the traditional needs of a community and the people feel “strangers” in their own district: this is also because the government did not produce a detailed participatory assessment of the environmental, social, and economic risks of relocation and of the cost of risk mitigation strategies for alternative sites<sup>98</sup>. Therefore, the two displaced communities present different patterns according to the organisation of rescues and the management of resettlement (as we will detail in the following paragraph). In both cases people feel unsatisfied, and “victims” of a double catastrophe: a natural and an institutional one.

### ***In a nutshell***

The territory and a catastrophe that occurs in that given space modify the collective identity of a community shaped in time and in space: the knowledge of the other members and of the territory built day after day, for years and the feeling of friendship, respect and esteem. The catastrophe modifies the social time, the social space, the social stratification and exclusion that strictly depend on the social auto-organisation, the reference frame, and the shared cultural codes of a community. This is the way in which we could understand the *Geimentschaft*, the feeling to be part of a community, generally constructed around the symbolic character of the members’ unity.

The shock provoked by the mobility in the aftermath of a catastrophe creates new symbolic and social relations. On the one hand, it can strengthen the feeling of membership. This is because this is a collective experience and it represents the uniqueness of a particular community. On the other hand, this mobility consequent to the catastrophe can also worsen the social cohesion, the feeling of injustice because of the compensations, but also the feeling of solitude in the new settlements.

The perception about the disintegration of the community due to the feelings of incertitude, insecurity, precariousness, and uncertainty can be strictly associated with the political response about the catastrophe and the deriving mobility.

---

<sup>98</sup> This is why the imagination and the memory of the lost place are still alive in the thoughts of the two communities. The space where they are now living will be never the same: the attachment to an imagined place makes the reality less attractive and makes the sentiment of alienation grow.

### III.4.c About the political response

In the long-term, people shape their identity and elaborate their own perception and memories of the catastrophes, also according the different institutional responses: this is why it is important to analyse the entity and the duration of the compensations given to the two communities, their access and their nature in term of properties or money. I analyse first the perception about the emergency management, then about compensation, and finally about resettlement and relocation.

#### *The emergency management*

The medium and long-term impacts of a catastrophe are also relative to the early-warning systems, and the plan of evacuation adopted by authorities. The perceptions about rescues and evacuation can shape the public opinion in the blaming process.

When I asked, “*How were the rescues?*” it is possible to notice a total contradiction in the two cases. In the case of Sarno, I found a negative evaluation, while in the case of Cerzeto, the totality of the interviewees made a positive evaluation. If in Sarno it is possible to recognise a strong perception about the total disorganisation and the lack of cooperation between the actors involved in the post recover phase, in the case of Cerzeto, on the contrary, the authorities totally took the control of the situation and evacuated the area involved (or not) in the catastrophe.

When I asked, “*Who organised the rescues?*”, the totality of the people in Sarno answered “*Nobody*”, even if someone recognises that the Fireman Corps and the Red Cross were the most implicated from the first hours in the aftermath of the catastrophe “*The firemen came during the night to take us from the roof*” (B., Sarno). At the beginning, the propaganda about the catastrophe was so spectacular that it made part of the population interiorise the action of the national government as “*necessary*” and “*unique*” (U., Cerzeto). In this case, it is not even the action of the National Civil Protection, but the work of M. Berlusconi and M. Bertolaso to be personalised in the rescues: “*They are our heroes; they organised everything for us. They couldn't have done better*” (L., Cerzeto); “*We were in their hands; we trusted them*” (S., Cerzeto). Such different management in the rescue of the population, and such different perception of the implication of the authorities in the destiny of the

local community, have important consequences on the kind of strategies people adopted in the aftermath of the catastrophe, the type of mobility they had, the relation with the old settlement and with the lost goods because of the displacement. Apart from the different forms of institutional answers, it is interesting to notice how a perception of self-victimisation is created and reproduced in the cognition of the displaced.

### *The compensation*

The “compensation” is defined as all the economic indemnities given to individuals or families from the institutions and the authorities; the resettlement is considered as a form of long-term relocation of the different households. In the case of Sarno in the aftermath of the catastrophe, the Decree N° 2787/1998 organised the compensation and the amount of money that would be destined to the reconstruction. Thus, in 2001 the local magazine “Linea Rossa,” published in the aftermath of the landslide, claims, “*After 30 months still no reconstruction*” (following **Figure 37**), reporting all the photos of the ruins (“*Linea Rossa*”, 01/2001).

**Figure 37: “Why the reconstruction (in Sarno) does not start?”**



Source: “*Linea Rossa*”, (01/2001).

The attainment of the compensation “*was very difficult and bureaucratic*” (F., Sarno). “*If I knew about the bureaucratic process to obtain the indemnity, I would have jumped in the mud*” (I., Sarno). It was distributed according to different household categories, indicated by the Decree, showed in the following **Table 21**.

**Table 21: Decree n. 2787/1998, economic implications of the compensation**

Programme	Kind of loss	One-time budget	Short-term budget
<b>A1</b>	Families who lost one or more relatives, their house and their income	L. 3,000,000 (approx. 1,549 €) once	L. 1,500,000 (approx. 774 €) for three months
<b>A2</b>	Families who lost their house and their income	L. 3,000,000 (approx. 1,549 €) once	L. 1,500,000 (approx. 774 €) for three months
<b>A3</b>	Families who lost one or more relatives and the income	L. 1,500,000 (approx. 774 €) for three months	
<b>B1</b>	Families who lost the house	L. 3,000,000 (approx. 1,549 €) once	
<b>B2</b>	Families whose house was damaged	L. 3,000,000 (approx. 1,549 €) once	
<b>B3</b>	Families whose house was not accessible	L. 3,000,000 (approx. 1,549 €) once	
<b>C</b>	Families whose houses had some damages	From L. 1,000,000 (approx. 516 €) to L. 3,000,000 (approx. 1,549 €) once, according to entity of the damages	

*Source: Personal elaboration.*

Moreover, people who had to move because of total destruction of their houses received, independently of the dimension of their house L. 30,000,000 (approx. 15,493 €) to rebuild it, and L. 600,000 (about 309 €) to rent another place for the time of reconstruction, for 6 years at most. According to an interviewee, this kind of compensation “*Did not take into account the Italian Lira to Euro change, and after 2002 it has been very hard to manage everyday life*” (G., Sarno).

The local community and the local association, built after the catastrophe, “*Comitati Riuniti per Sarno*” and “*Rinascere.*” claim a misleading management of the

compensation process: *“We have been abandoned: we are victims of the institutions more than the environment”* (A., Sarno). For another interviewee, the citizens of Sarno are not victims because *“they have chosen their politicians, so, we are not victims, but actors of the mismanagement of the compensation funds”* (F., Sarno).

In this case, we can observe a commercialisation of material and immaterial losses, that reflects a complete incapacity of the public authorities to consider the real needs of a given community hit by a catastrophic event. Two of the interviewed women, who lost their husband during the catastrophe, are still waiting for the compensation for the two deaths.

Differently, in the case of Cerzeto, the Municipal Decree N° 3427/2005 organised the compensation for homeless and displaced because of the landslide: because there were no fatal injuries caused by the catastrophe, the Decree only regulates the compensation about goods, such as houses or economic activities. The Decree foresees a one-time contribution for each economic activity, for 70% of the declared income of the previous year. Moreover, each family affected by the event would be helped with 5,000€ once and 400€ each month to rent another place, independently from the dimension of the house and of the number of people in the household.

Later on, national authorities, as mentioned above, decided to reconstruct somewhere else all the settlement and people were, according to the Reconstruction Council Member *“Totally compensated.”* Actually, apart two people who told me that they were victims, in Cerzeto, they generally say about their condition *“We are victims, but we are lucky, because some other past disaster victims have not been compensated yet”* (R., Cerzeto). The fact that compared to other displaced or other disaster victims people received a house creates a deep bias on the judgement that population have about their situation. The two compensation have been managed in a completely different way: in the first case, the economic solution for the compensation has been privileged to rebuilding, while in the second case the authorities have autonomously decided to provide directly a new settlement.

### ***The displacement***

As I have explained, in the case of Cerzeto people have been forced to move definitively in another village, built specifically to give a new settlement to the hit



community: *“Did you displace temporarily or definitively?”*, *“The institution forced us to move here. I don’t like this new settlement, but we had no choice, and now it is too difficult to sell this house and buy in another place. I wouldn’t even know where”* (U., Cerzeto). The possibility to displace temporarily or definitively, in Sarno, on the contrary, was associated with the degree of destruction of the house.

Accordingly, people who had only little damages had to wait from 6 to 12 months, but then they came back in their houses. The ones whose houses were completely destroyed, had to wait at least 6 years, and, as mentioned before, there are still families living away. Nevertheless, all the people I have interviewed decided to come back in Sarno, because it was a “natural” decision, but also because of the work constraints. They claim, *“Here, in Sarno I have my house and my activity”* (I., Sarno); *“It was my instinct: Sarno is my home”* (C., Sarno), even if for some of them it was too hard to come back in their old district *“I am still afraid to go there”* (H., Sarno), *“I have too much bad memories of this place, where I lost my husband”* (J., Sarno). Coming back in the old settlement means, in a way, establishing a dialogue with the people who died during the catastrophe. In this sense, it is the space that creates a link with time, with the past.

### ***The rehabilitation***

Resettlement is a very complicate phase in catastrophe management. Resettlement on the long-term period does not only mean the possibility of reconstruction or relocation, but also the re-establishment of an “originally place,” a symbolic space, full of memories for the population who lived in a given territory.

It is well known that a catastrophe could transform into an occasion to promote unexplored development strategies, because the amount of funds to help local populations could be virtuously used to enhance local environmental, cultural, and economic sustainability. As a catastrophe can be a sustainable economy vector, negotiated programmatic politics should be promoted, in order to develop a network between citizens, local associations, economic actors, and the environmental context. The analysis of this perception allows me to investigate the long-term evaluation of the role of authorities and the effective political response concerning the mobility.

In the case of Sarno, a “Territorial Action Plan”<sup>99</sup>, was established by Campania Region in the aftermath of the catastrophe, involving all the municipalities concerned in the catastrophe for the reconstruction and for the enhancing of the occupation in that area, but, according to Legambiente and to the President of “Rinascere”, it did not have a real impact on the area and the occupation did not increase. In the case of Sarno, people autonomously reinstalled in the old settlement without any institutional planning for the areas hit by the catastrophe if their house was not completely destroyed. For the ones whose houses were no more accessible Campania Region and Salerno Province started the reconstruction of some housing projects, but in some cases, those houses are not ready yet (following **Photo 18**).

**Photo 18: Housing projects in Via Episcopio, under construction**



*Source: Personal photo (Sarno, 2012).*

**Photo 19**, page 234, shows a building, in Via Pedagnali, financed by the Province of Salerno: “Reconstruction works: building destroyed during the flood events of 5th and 6th May 1998”<sup>100</sup>, still unfinished in Autumn 2012.

---

<sup>99</sup> The “Patti Territoriale per l’Agro-Nocerino-Sarnese” are part of the National Project for Local Development, regulated by Art. 6 of Law n.305/1989.

<sup>100</sup> Lavori di ricostruzione: fabbricato distrutto dagli eventi alluvionali del 5 e 6 Maggio 1998.

Photo 19: A building in Via Pedagnali (2012)

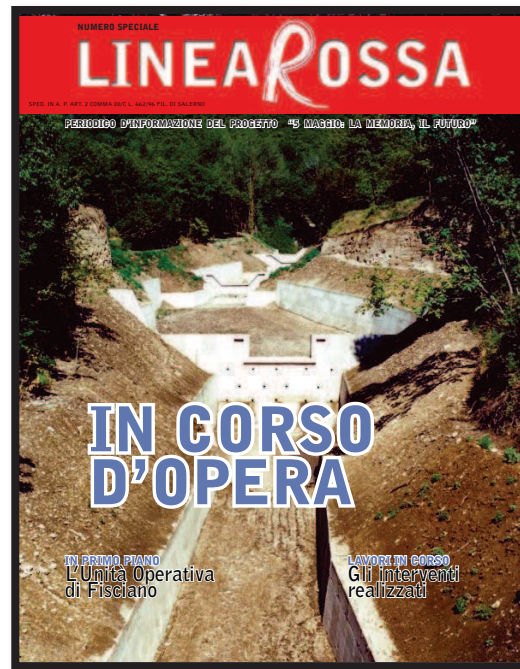


Source: personal photo (Sarno, 2012).

The President of Legambiente for Campania Region, whom I met during my fieldwork, told me “Sarno, as almost all the catastrophes in Italy has been a ‘constructed emergency’: the media exploitation of the tragedy legitimated institutions to have absolute discretionary behaviour in the management of the after-catastrophe resettlement. In this sense, the urgency and the pressure overtook the normative bonds. Therefore, the projects are not an end but a mean to exploit the territory. Moreover, the presence of Camorra completely affected all the program of development in the region. Not only in the construction sites, but also in the management of the compensation and of the municipality safety.”

With this in mind, it should be considered that structural interventions, such as the bounding basin, were built since 1998, in order to prevent new episodes, but that at present, they are again completely abandoned and are not functional anymore (see **Figure 38**, page 235). As the association “Legambiente” notices, in the management of the future risk, no attention has been given on the possibility of replanting threes to maintain the slope. This action would have been cheaper, less environmentally impacting, more durable, and sustainable (Legambiente, 2010).

Figure 38: “The structural interventions (in Sarno) ‘are being constructed’”



Source: “Linea Rossa” (Numero Speciale, 2010).

In the case of Cerzeto, instead, as mentioned above, the resettlement in the area of Pianette has been preferred to reconstruction of the area hit by the catastrophe. The National Civil Protection decided the structure of the new settlement and it was completed in 6 years (in 2011).

Despite the fact that the landslide had hit only a portion of the district, the national authorities preferred to give a unique model of reconstruction and autonomously decided to displace the whole community (see **Photo 20**, page 236). “*Nobody asked anything to us*” (X., Cerzeto); “*What a mess... Our village is over there!*” [Pointing at the old settlement] (S., Cerzeto); “*We are angry and these houses are horrible*” (U., Cerzeto); “*My beautiful house...now I’m in a public housing*” (V., Cerzeto); “*It is just an economic scam*” (T., Cerzeto).

This standardised model of construction makes the new settlement completely impersonal and makes the sentiment of alienation stronger.



**Photo 20: The new settlement in Pianette**



*Source: Personal photo (Certzeto, 2012).*

The Reconstruction Council Member told me, *“We spent only 67 million € for the settlement. We decided with the National Civil Protection to give an opportunity to the whole village: who had an old house, now has a new house, independently from the dimensions of the old one. We decided to award the victims of the catastrophe, and compensate them a priori, even if before they lived in an old and small house. Even if their house was an illegal building.”*

When I asked, *“Why? The landslide mostly developed because of illegal buildings and hit especially the new illegal portion of the district...”* he only answered me, *“We are not the police, all the victims are equal.”* Moreover, when I asked to the Certzeto Mayor, *“What they were going to do with the old site,”* he told me *“It is just an old settlement, what should we do? Invest on its rehabilitation is just a waste of money”*.

The problem of the resettlement of Certzeto is that its decision has not been made together with the local population and that it does not reflect the real needs of this population, deeply anchored to traditions, and to their old district, that now is just a ghostly place. The local association “Cavallerizzo vive,” denounced in 2007 the construction of the New Town to the Administrative Tribunal, and in 2009 to the Public

Prosecutor's office of Cosenza for the contracts with the construction firms, but no decisions have been taken, considering that the settlement has been completed.

*“A criminal gang controlled the construction of the new town, with the approval and the connivance of the local and national politicians,”* claims one of the members of the local association “Cavallerizzo vive”. Therefore, in both cases, no real development of the hit area has been foreseen, and immediate economic interests have been privileged rather than local communities' needs. Moreover, their specificity in being displaced communities has not been recognised.

**Photo 21: The new settlement of Cerzeto**



*Source: Personal photo (2012)*



Almost 70 million Euros of public money have been used to build a new town (see **Photos 21**, page 237 and **22**, page 238), but nothing has been done to secure the old built area, as showed in the document of the Government department responsible for the environment and historical buildings (Soprintendenza per i beni archologici e paesaggistici Prot. N° 2337/P/04/2009 and Prot. N° 1373/P/07/2009) that states “*the necessity and the urgency to preserve the historical settlement of Cavallerizzo di Cerzeto*”<sup>101</sup> and the “*indispensability to protect and restore the historical settlement, according to Art. 10.4, l of the Cultural Heritage and Landscape Code, denying the possibility of demolition or substitution*”<sup>102</sup>,

**Photo 22: Houses in Pianette**



*Source: personal photo Cerzeto (2012).*

---

<sup>101</sup> “*L’assoluta necessità e urgenza nel provvedere alla conservazione del nucleo storico di Cavallerizzo di Cerzeto*”.

<sup>102</sup> “*L’indispensabilità di salvaguardare e restaurare l’intero complesso architettonico storico, per il quale esiste una specifica disposizione di tutela ai sensi dell’Art.10 comma 4 lettera “l” del Codice dei Beni Culturali e del Paesaggio, ponendo il veto al criterio “demolizione-sostituzione”*”.

However, the recommendations of the Ministry of Cultural Heritage have been applied only considering the veto about the demolition. A new settlement has been, indeed, built, and the old one stands on the mountain as a reminder of the past. Moreover, local population does not appreciate the displacement, even if they feel luckier than other disaster victims do. *“Poor us! We had to change all our life only because of economic interests of Bertolaso, Berlusconi, and the construction builders”* (U., Cerzeto). *“We can’t even sell those horrible houses: nobody would like to live here. There are no schools, no shops, no post offices, no Churches: nothing”* (S., Cerzeto).

There is only one woman still living in the ancient village (following **Figure 39**), who claims she is protesting against the Major, the National Civil Protection and the policemen that try to expel her cyclically *“Give me back my dignity and my electricity”*: she resists in a silent way against the institutions which deprived the community of memory and hope testifying the importance of the feeling towards her house, her village, her memory and her past, and completely denies the possibility to have a future in the new settlement.

**Figure 39: The resistant**



Source: “Il Quotidiano”, (26/10/2013).

It is also interesting to notice how, despite the findings provided in this research and the sentence of the Court, the new settlement of Cerzeto won in 2009 the Prize “Ancitel” for

the sustainability, a private certification provided by Ancitel “Energia & Ambiente,” under the aegis of the National Civil Protection (PC, website, 2009).

### *To conclude*

The two catastrophes hit the villages but also the communities, in a sort of founding trauma, namely a collective experience that, not only shapes the social identity, but that becomes the basis of a new identity (La Capra, 2001). The two landslides, the spontaneous mobility and the resettlements have been physical shocks. In fact, those events will remain for years in the minds of the two communities, modifying the perception about the event and the evaluation about the role of the state and its implication in the management of the consequent mobility.

This is because the involved people passed through this trauma and emerged strengthened and this is why this feeling of uniqueness reinforcing the community creates a new start. Nonetheless, to consider the future, for both populations the process of rehabilitation of the past has been important. The reconstruction is not only linked to the material goods, but also to the past life and its related losses, modified perception of the spaces and consequent influence on the community cohesion.

\*\*\*

The analysis of the perceptions of the people involved in the catastrophe gives the possibility to recognise different elements that are interesting in order to have a deeper knowledge about the recognition/misrecognition of the environmentally induced displacement issue in Italy as an example for the communities involved in this phenomenon in the Global North.

First, I underlined how the catastrophe modifies the perception of time and space for the people. This is because the catastrophe determines a point of no return but can also mean a new start for the affected community. In addition to that, I generally recognise that the people in both cases of Sarno and Cerzeto, consider the catastrophe as a fatality. Even in the cases where they guess the “innatural” cause of the

catastrophe, they generally associate it to the fault of a single actor. It shows a complete misrecognition of the collective responsibility about the causes of the environmental degradation that augmented the chances that the phenomenon occurs. In the same sense, globally, the concept of vulnerability is a confused concept. It is often associated to the presumed invulnerability of the people who always have lived in the same place without any regards to the changes in land-use patterns and the transformation of the territory.

Secondly, it has been possible to notice how in general, both in Sarno and Cerzeto, the perceptions about the losses describe a double-scenario. On the one hand the material losses, often associated to the feeling to have been victims of a serious injustice, on the other hand the immaterial losses, caused by the social impacts of the catastrophe. The catastrophes and the consequent mobility can, in fact, sharpen cleavages among the communities and provoke serious impacts on their life, economy and natural context in which they live. After having individuated the material and immaterial losses of the two communities and the political and economic approach to their compensation, it is possible to see how, in the long-term period, people shape their identity and elaborate their own perception and memory of the catastrophes, also according to the different institutional and associative responses.

Finally, I underlined how the perception about the emergency management and the early warning system, but also the kind of received compensation, varies in the two cases. In the case of Sarno, people complain about the rescues and the post-catastrophe management. They also complain about a total commercialisation of death as they received compensations that will never re-pay their losses. In the case of Cerzeto, where the emergency management is generally positively evaluated, the long-term rehabilitation, based on the resettlement of the village is evaluated very negatively, because of its social consequences.

The perception of the interviewed people externalises a deep trauma related to the landslides and their consequent mobility. It is lived as the consequence of a bad management of the post-recovery phase because the responsibility of the event is connected to the personal responsibility of few actors. Thus, the connection between environmental degradation and displacement is denied in the global perception of the two communities, because of public discourses and media representations. On the one

hand, it is denied because of the narrative of the “fatality” that surrounds the landslides. On the other hand, it is denied because the integration of the narrative of “victimisation,” linked to the feeling of being estranged from the present life and the constant perception of loss, erases the individuals’ level of agency and their alternatives to top-down decisions.

### **Conclusion to part III**

The empirical observations from the fieldworks and the analysis of “first” and “second hand” data allow the recognition of different findings. The two cases of Sarno and Cerzeto present two very vulnerable contexts from a social, economic and environmental point of view. In the two sites, territorial mismanagement has intensified the environmental degradation enhancing the level of risk.

The two landslides, which occurred in 1998 and 2005, are perceived, represented and remembered as fatalities. The elements of hazard, calamity and unavoidability seem to dominate the narrations, the definitions and the representations of the two catastrophic events and their consequent mobility. In line with the mainstream framework focusing on the victimisation of the local community, the spectacularisation of the event and the importance of the presence of the State, the people who experienced the mobility deny the phenomenon they experienced.

Firstly, it has been possible to point out how, because of the misrecognition of the displacement in public discourse, people have to use their previous social and family networks, but also their previous capitals to face the medium and long-term mobility. This misrecognition in the case of Sarno provoked a total overlooking of the consequences on the population and had as a consequence a poor compensation. In the case of Cerzeto it allowed a top-down decision that crossed with other political and economic interests.

Secondly, I have analysed how the patterns of this mobility are definitively overlooked by the public discourse even if, from the “first hand” data, it has been possible to show how the mobility in the short-term is not a strategy for all the people involved in a catastrophe to cope with the event, and that it is considered as a “last resort” to cope with environmental stress.

In fact, also in forced migrations, as the ones due to environmental degradation, it is possible to recognise that the people who suffer the most the mobility or experiment the immobility are the ones that also before the crucial event presented characteristics of marginalisation and social vulnerability because of age, sex, type of employment or administrative status (citizen, immigrant, nomad). In conclusion, I can affirm that the exposure to environmental degradation and natural hazard is very relevant in Southern



Italy: the factors of vulnerability cross not only “natural” elements, but also social and economic issues, as for all the Global North.

Finally, thanks to the data and the finding collected during the fieldwork, it is possible to recognise that in the public discourse, in the media representation, in the personal and community memorials the phenomenon of environmentally induced displacement is not mentioned. This element is crucial when considering the minimisation of this phenomenon in the Italian narrative: the political and media attitude tends to relativize the impact on the population mobility without any attention to the mobility itself, the long-term losses, and the consequences on the community cohesion.

This same conclusion can be given considering the perception of the catastrophes and their consequent mobility. Interviewed people seem to have integrated the public discourse. In their self-representation they are victims of political choices and there is no focus about collective responsibilities or future preventive actions. The mobility is lived as a social injustice, because it crosses with the feeling of estrangement and the evaluation about material and immaterial losses. The fact that in the public discourse there is a complete denial of the phenomenon makes people completely unaware about their condition of environmentally induced displaced.

This misrecognition allows a shift of the debate from the patterns of mobility and its consequences in terms of collective identity shaping, public measures to be taken, political recognition, and administrative compensations to the fatalistic approach towards the “natural hazard”, the political exemption from responsibility (as for Sarno), or the political salvific intervention (as for Cerzeto). This simplistic approach produced at a political level and reproduced by the media, that opposes the “Nature” to the personification of the national or local government, totally denies the complexity of the interactions between human and environment.

It overlooks the possibility of a high level of vulnerability caused by the settlements’ exposition and misrecognises the patterns of mobility caused by the environmental degradation in Italy.

Which are the political reasons of this misrecognition? Can we generalise to all the Global North the presence of a political design to hide the phenomenon? Which are the implications of this denial?

## IV. A discourse rooted into a political agenda

*“Why did we become blind, I don’t know,  
perhaps one day we’ll find out,  
Do you want me to tell you what I think,  
Yes, do, I don’t think we did go blind,  
I think we are blind, Blind but seeing,  
Blind people who can see, but do not see”*  
(J. Saramago, *Blindness*, 1995: 165).

### Introduction

The evidence from the cases in Italy shows some important findings: first, I observed the presence of displaced communities in the aftermath of catastrophes. Secondly, I pointed out how the phenomenon of environmentally induced displacement is completely denied in the public discourse, both by the media and the authorities in Italy.

The spontaneous or forced displacement experienced respectively by the communities in Sarno and Cerzeto underline how the pre-catastrophe economic, social and human capital and vulnerability patterns (linked to social and employment status, gender, and age) influence the level of agency of the affected people, their responses to the catastrophe and their strategies to face it.

In fact, the vulnerability-displacement (among others: Nicholson, 2011; Piguet et al., 2011), or the vulnerability-immobility nexus (Black, Bennett, Thomas and Beddington, 2011) are not new in the literature but the focus on Global North countries allowed to re-analyse these phenomena and the public discourse associated with them in a more critical way, by analysing the definitions done by the authorities, the scholars and the media. In order to determine the causes and motivations behind the denial of the phenomenon of environmentally induced displacement in Italy, it is now crucial to understand if and how this Italian specificity can be generalised to the whole Global North and if we can recognise a political agenda.

Based on the findings of the exploratory fieldworks and the case of Italy, I now investigate the mainstream perspective about the issue of environmentally induced displacement from different points of view (the current academic debate, the discourse of governments and International Organisation, media and NGOs). The analysis is framed

in a post-constructivist approach, taking into account the “reality” of the two case studies, and aims to deeply understand which are the motivations and the implications of the different handling and treatments of the phenomenon for the Global North and the Global South.

This fourth part of the thesis is crucial in the verification of the main hypothesis of the work and its corollaries: *We can recognise a political design in the hiding of the phenomenon of environmentally induced displacement in the Global North*. In fact, in order to test this hypothesis, strictly linked with the problematic question of this research, it is firstly necessary to consider two under-hypotheses to be tested in this part in light of what I have shown up to this point, thanks to the two examples of the exploratory fieldwork.

1. *Environmentally induced displacement is considered as a prerogative of the Global South;*
2. *There is a political design in the maximisation of the phenomenon in the Global South and the minimisation of the same phenomenon in the Global North.*

These corollaries help me in the recognition of the main elements of the leading thread in the process of inference and generalisation.

The analysis of the different frameworks and conceptualisations starts from the article of Bankoff (2001), “Rendering the Word Unsafe: Vulnerability as Western Discourse”. In this article, the author retraces the discursive context in which hazards, risk, vulnerability and catastrophes are conceptualised.

According to the author, the definition of the concepts of human vulnerability and natural hazards are the reflection of specific cultural values (environmental protection, human security) and are generally linked – in their construction, reproduction and representation – with specific areas of the World (in this case the Global North). This tendency has been analysed in the attempt to understand how post-colonial interactions and the neo-imperialist paradigm still link scientific research with interpretations of the reality by the media and governmental policies.

This part constitutes the core of the inference process, carried out through the deconstruction of the mainstream perspective about environmentally induced displacement. In this sense, it is crucial to question the two Italian examples both through the lens of the theory and through other case studies.

The first chapter of this section problematizes the Italian findings considering the mainstream theoretical point of view on three crucial elements: the first section deals with the interpretation of mobility as a form of adaptation strategy; the second section considers the resettlements in the environmentally induced displacement field; the third section describes the methodological and theoretical debate surrounding these phenomena.

The second chapter puts at issue the theoretical mystification surrounding the phenomenon of environmentally induced displacement, considering first the concepts used by media and grey literature, then the numbers estimated by academics and the trajectories (in term of presumed origin and destination areas) that environmentally displaced persons are expected to follow over the next decades.

The third chapter aims to analyse the different political perspectives on the phenomenon proceeding from the empirical evidence of the fieldwork to a global approach, interpreting the process of conceptualisation of this issue through the said theoretical framework: the perceived “un-vulnerability” of the Global North in a first paragraph, and the elements useful to the general comprehension of the political motivation of this different definitions in a second one.

## **IV.1 Different definitions for the same phenomena**

### **Introduction**

In the latest decades, a significant body of literature has emerged to document the impacts of human activity on the environment in terms of pollution and territorial mismanagement, and the effects of environmental degradation on human communities (Schnaiberg and Gould, 1994), filtered through the context of poverty, lack of capabilities (Sen, 1989) and social inequality (Boano, 2008).

If on the one hand industrial activities, territorial exploitation and pollution affect the natural environment, in parallel, environmental degradation jeopardizes human life and well being, in particular for the most marginalised people, creating insecurity on the short and long-term. Environmental degradation is also linked with conflicts and political tensions caused by resource depletion, and with the implications they can have on national and international security through destabilisation of regimes in sending and receiving areas (among others: Basilien-Gainche, 2012).

### ***A poor conceptualisation?***

The definitions given to the concepts related to the impacts of human activities on the environmental degradation and its consequences, such as adaptation, vulnerability and, in particular, the notion of environmentally induced displacement, are often based on assertive definitions that involve a single point of view on the analysed concepts.

The reason for this is that the nexus between environmental degradation and its impacts on human communities seems to be still poorly conceptualised in a normative and prescriptive way (Boano, 2008). The analysis of the linkage often follows a very simplified, deterministic path – where the environment becomes the most important push factor –, denying a complex, multi casual and multivariate process that determines the decision to migrate through a long-term project, or the sudden abandon of an area.

The complexity of the linkage between environment and human mobility and the political and strategic consequences of its different interpretations often mislead the definition and the quantification of the phenomenon of environmentally induced displacement. On the one hand, it is possible to observe a growing attention on the nexus

between environmental degradation and mobility by media, NGOs and governments in the public discourse as well as in the international political agenda. On the other hand, a lack of evidence in the analysis of the phenomenon and the concentration of the existent case studies in the Global South generates since the '70s debate around the definition, the quantification and the explanation of the phenomenon among the scholars individuating the main features of this debate (Adamo, 2008).

Concerning the debate on environment and human mobility, Laczko and Aghazarm (2008) have individuated the “3 Ds” problem: definition, data and drivers<sup>103</sup>. The authors believe that the challenges in the recognition and protection of this particular category of displaced people are strictly linked with the difficulty that academics and governments have to limit and circumscribe the phenomenon.

The difficulties in giving a more or less inclusive definition to, and in calculating the real dimension of, this category are the main reasons behind the insufficient international and national protection regime (there is currently no international legal recognition of the phenomenon) for this kind of displaced individuals and groups and generate little other than fear in Northern countries which define this issue in term of migration, humanitarian, development, security and environmental “problems”: *“The underdeveloped South poses a physical threat to the prosperous North by population explosions, resource scarcity, violent conflict and mass migration”* (Dalby, 2002: 71).

From the observation on the state of art and the analysis of two illustrative examples, I now retrace the overall theoretical context of the research linking environmental degradation and mobility, which is important to not reduce in simplistic terms. For this reason, I first take into account the framework of analysis that characterises the narrative on displacements as a form of adaptation in the aftermath of catastrophic events, considering previous studies and the examples of Sarno and Cerzeto.

I then provide a synthetic conceptualisation of resettlement as an option to prevent or to cope with environmental degradation and catastrophes, illustrating it through past experiences in Italy and abroad.

Thirdly, I focus on the use of different analyses in the definition of the same concept and relate them to specific geographic areas, starting from the definition given to the

---

<sup>103</sup> Reconsidering the theory of Laczko, I also add another “D” problem: the destination of environmentally related population flows. As I will show, the debate increasingly focuses on the expected geographical destination of the people involved in environmentally induced displacements.



communities of Sarno and Cerzeto and considering the other labels adopted to define other communities in different contexts. This analysis is based on the nominalist approach: the possibility to find the same research object under different appellations in different contexts (Feibleman, 1962).

This philosophical methodology arises from the necessity to universalise the definition of the concept of environmentally induced displacement and overcome the relativism and the subjectivity that could create, again, misleading conceptualisations of the same issue (Rodriguez-Pereira, 2008). I use this nominalist speculative tool in order to describe the phenomena and compare them in order to give more concreteness to the issue and to try to find global solutions for these questions, regardless of the label that is attached to them.

#### **IV.1.a Environmentally induced displacement: a form of adaptation?**

Can mobility be considered a form of adaptation? Or it is just the evidence of the failure of the adaptive strategies? Does its definition change according to the context for which it is used?

The landslide occurred in Sarno in 1998 and its consequent spontaneous mobility casts doubts on the general idea that mobility can be considered as a form of adaptive strategy to cope with the consequences of environmental degradation. In fact, as we have seen, previous vulnerability pattern, expectation, migratory project, social role and gender role create a bias in this push-pull approach.

This is because according to the people involved in this displacement, the mobility (or the immobility) severely affected their lives on the short-term and their living conditions, projects, expectations and opportunities in the medium and long-term. In this section, I develop this idea based not only on my case study but also by providing evidence from other case studies in different geographical areas.

#### ***A recommended option for the Global South?***

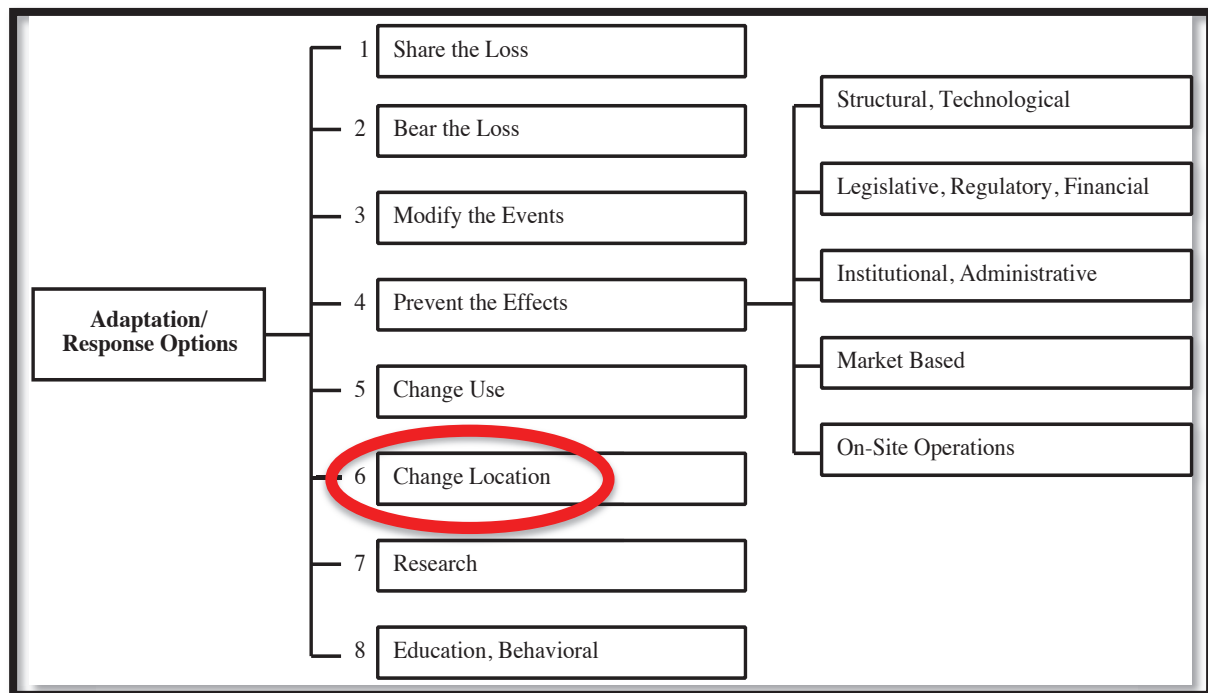
Mobility is often considered as a form of adaptation to cope with the negative impacts of environmental degradation. Academic works by Cutter (1993) and Blaikie

et al. (1994) argue that natural disasters generate migration due to the loss of livelihoods or because of fear of the event itself. However, environmental shocks and changes do not undermine human security in isolation as mentioned by Barnett and Adger (2007). *“[Their] impacts are felt within a broader range of social factors, including type of employment, poverty, levels of state support, access to economic opportunities, the effectiveness of decision-making processes and the extent of social cohesion within and surrounding vulnerable groups. These factors determine a population’s access to economic and social capital, which in turn determine their capacity to adapt” (ibidem: 3).*

In this sense, it can be underlined how, in the classification of adaptation options, mobility (“change location” in **Table 22**, page 252, the red-circled option) is regarded as one of the crucial responses to adapt to environmental degradation for specific geographical contexts associated with specific environmental hazards: for example glacier melt in Asia (Zbicz, 2009); drought and other catastrophes in Mexico and Central America (La Rovere and Mendes, 2000); desertification and land degradation in the Sahel (Turner, 1999); flooding in deltas (Chatty, 1994) and sea level rise in the Pacific Islands (Collin, 2009).

The idea that “change location” constitutes an option among others, seems to be extremely arduous because, as previously mentioned, the mobility is not a neutral concept and, even if it is a last resort option, it cannot be afforded by everybody. In this sense, both from one-set events or for long degradation ones, the environmentally induced displacement is not just an “option” but it reveals other determinants in term of previous vulnerability, social and economic capitals and migratory projects.

**Table 22: Classification of adaptation options**



Source: Personal elaboration from Burton, 1996 (in Smit et al., 2001: 885).

In a 2010 paper, Martin, the director of the Institute for the Study of International Migration, declares: “*Although most countries would prefer that their populations be able to remain in place, in some cases, migration has been identified as an adaptation strategy in itself. This perspective appears in two contexts. First, some countries see migration as a way to reduce population pressures in places with fragile eco-systems. Second, countries recognise that resettlement of some populations may be inevitable, given the likely trends, but should be accomplished with planning*” (2010: 3).

Among other scholars, Barnett and Webber (2010: 7) consider that “[mobility] *works to improve the lives of migrants, their families, and the communities from which they come and to which they move. [...It...] is a proven development strategy pursued by agents to maximise their needs and values. It is also therefore a strategy that can help migrants, their families and the communities from which they come and to which they move to adapt.*”

Mobility is therefore presented as a recommended solution to face current and future catastrophic events, in particular in specific contexts situated in Global South countries (Klein and Nicholls, 1999), and as an option used to diversify available strategies to cope

with environmental degradation (Agrawal and Perrin, 2009). In the specific case of sea-level rise (as for the Pacific Islands), for example, mobility is recommended as a useful strategy: *“In the case of low-lying small island states in the South Pacific, if sea level rise progresses as expected, migration may sooner or later become the only adaptive option”* (Smit and McLeman, 2006: 37). Moreover, Adger et al. (2003), Tacoli (2011) and Barnett and O’Neill (2012), individuate mobility as a traditional coping strategy for population living in arid areas. It is indeed true that pastoralist communities in Africa or Asia are traditionally mobile groups who have developed strategies to cope with resource scarcity in this environments.

Dersertification and more frequent droughts have been putting more pressure on resources, pushing pastoralists away from their traditional migratory routes (Lassailly-Jacob, 2000). Their moving to urban centres has been considered as a form of adaptation rather than a failure of their traditional strategies (Hesse and Cotula 2006). Even if a study promoted by IOM and UNDP in 2012 in the area of the Mekong Delta in Vietnam considers that mobility has been a *“significant strategy to cope with and to reduce exposure to hazards,”* as it has *“Reduced exposure to environmental risks [and] vulnerability. [Moreover it has proven] beneficial in protecting life, health, and property.”* (IOM and UNDP, 2012: 21).

Contrarily, examples from Niger and Egypt (Afifi, 2008a and 2008b) that consider the variability in raining patterns – with short and long-term consequences- reject the idea of mobility as a form of adaptation and consider the efficiency of *in situ* adaptation, which plays a significant role in the prevention of mobility in response to environmental stressors.

*In situ* adaptation options include *“drought early warning systems for disaster preparedness; community-based forest and rangeland management rehabilitation; introduction of drought-resistant seed varieties; replacement of household goat herds with sheep herds to reduce pressure on fragile rangelands; land use conversion from agricultural activities to livestock raising; promotion of non rain-fed agriculture and improving agricultural techniques, etc.”* (Zubrycki, Crawford, Hove and Parry, 2011: 5).

The frame of this approach derives from the National Adaptation Programmes for Action<sup>104</sup>, structural process for developing adaptation strategies, policies, and

---

<sup>104</sup> A UNFCCC initiative to enhance the adaptive capacity of the Least Developed Countries.

measures to enhance and ensure human development in the face of environmental degradation including climate variability and climate change, specifically designed for Least Developed Countries in the Global South: these frameworks are developed to link environmental stresses and adaptation to sustainable development and other global environmental issues. They consist of five basic components: scoping and designing an adaptation project, assessing current vulnerability, characterizing future climate risks, developing an adaptation strategy and continuing the adaptation process proposing the improving of autonomous mobility and resettlements (UNDP, 2005 and UNFCCC, 2008).

According to this framework, in order to avoid the most dangerous effects of the depletion of natural resources and climate variability, the authorities have to invest in physical and social infrastructure to enhance social capital aggregation and increase the level of awareness of the population improving its mobility, its human and financial capital through autonomous displacements and resettlements.

### ***A denied strategy for the Global North?***

If mobility as a form of adaptation is considered as an imperative option for Global South countries, in the Global North *in situ* adaptation is largely recommended (EEA, 2013) in order to enhance resilience to environmental degradation and to avoid the negative impacts of catastrophic events. For example, the French Ministry of ecology considers that the strategy for adaptation to environmental degradation “*is developed along 9 lines: 1. Develop scientific knowledge; 2. Strengthen the observation system, and ensure its operation on the long term; 3. Inform and motivate all stakeholders; 4. Promote an approach adapted to local communities; 5. Finance adaptation; 6. Use legal instruments; 7. Encourage voluntary approaches and dialogue with private stakeholders; 8. Take into account the specific aspects of overseas territories; 9. Contribute to international exchanges*” (Ministère de l’écologie website, 2011).

No concrete action is mentioned, neither mobility, even if the example of windstorm Xynthia, during which around 10,000 people were forced to evacuate after the inundation of their properties (Genovese et al., 2012), shows that the strategies of *in situ* adaptation do not always work even in Global North countries and that mobility is directly linked with the failure of these adaptive options.

Not unlike the French case, in the proceedings of the 2007 National Conference on Climatic Changes, promoted by the Italian Ministry of the Environment and the Protection of Territory and of the Sea, one can read that the practical activities of adaptation are “1. *Implementing the knowledge on hazard and risk assessment, focusing on the role of rainfall as main triggering mechanism of floods and landslides*; 2. *Understanding the meteorological trends in Italy in the last 200 years*; 3. *Analysing hazard mapping in relationship to land use and triggering mechanisms*; 4. *Evaluating long term scenarios as an input for the potential modification of triggering mechanisms*; 5. *Understanding the impact of modifications of future scenarios to present day hazard maps*; 6. *Delineating the main issues for an adaptation plan, suitable to minimise, from now, the adverse effects of Climate Change as well as to strengthen resilience*” (Italian Ministry of the Environment and the Protection of Territory and of the Sea, 2007, website): also in this case no concrete actions is proposed, it is all based on risk identification.

Thus, mobility, is not mentioned as a strategic option even if empirical evidence shows that it still remains the last resort to cope with environmental degradation and catastrophes, as seen in the case of Sarno, and that planned mobility is used as a top-down measure in the face of catastrophes also in the Global North.

Putting in perspective the approach that considers mobility as a form of adaptation, it is possible to retrace the evidence observed during the fieldwork.

### ***Observation from the Italian examples***

The evidence from Sarno has shown how mobility did not represent a form of adaptation for all the people affected by the catastrophe, mainly because of differential access to human, social, cultural and economical capital. Moreover, it has highlighted how there is often no connection between the original reasons for moving – whether “forced” or “voluntary” – and the experience of mobility itself, and that there are many factors which determine the decision to use mobility as a form of adaptation.

In this sense, the idea that mobility can be considered as a strategy should be rethought taking into account the fact that not everyone is able to move, because of different factors related to gender, age, health condition, occupation and administrative status. This is because moving is often an expensive experience – both from the



emotional – social cohesion, feeling of be part of the community, feeling of a shared identity (Castles and Miller, 1998) and the economic (Palloni et al., 2001) point of view, considering the short-term and the long-term losses, the direct and the indirect costs – and can lead the people who are moving into other forms of vulnerability.

In the same sense, the example of Cerzeto and its consequent resettlement demonstrates how policymakers, before considering relocation, have not involved the concerned community in the process, without assuming top-down decisions and accepting that some people will never adapt to the move (the sudden movement and its consequences on the long-term).

The example of Sarno demonstrates how the complete failure of adaptive strategies has been determined by a lack of territorial management at a local and a national level: the lack of early-warning system and the complete absence of infrastructures useful to face a possible shock created the conditions for heavy human losses and for short, medium and long-term mobility, which in turn generated community's destruction and the disintegration of social networks, as the affected populations' trust in local and national institutions and authorities was reduced mainly due to delays and unfairness of economic compensations and the significant amount of top-down economic investments wasted in inefficient or ineffective projects.

The analysis of Sarno and Cerzeto showed how mobility, as a livelihood strategy, does not always mean a more stable life for people who experience it. In fact, there are cases where people cannot move, cases where people who move become exposed to new social, economic and environmental risks. Moreover, the fieldwork showed that people's decisions to move involve different factors: previous experiences, future aspirations and current problems. Understanding how difficult it is to place people's experiences into specific categories is essential in order to present a more nuanced picture of the political dimensions of migration as an "adaptation response."

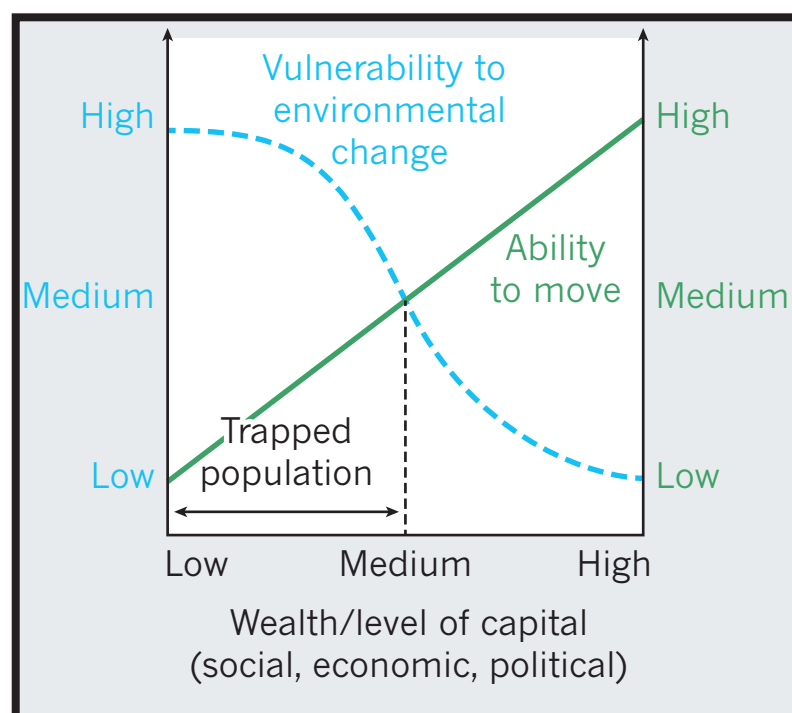
Whenever there is a debate about migration as a positive adaptation strategy (in the sense that the migrants can send back remittances that can be used to enhance the resilience of the place of origin), it is not possible to consider mobility as a positive form of adaptation. Households who decide to move away from areas at risk in the spontaneous strategy, or the ones who can avoid the forced resettlement, seem to be the wealthier and more resilient ones, because they can cope in a more efficient way with the short and long-term impacts of the catastrophe, thanks to better access to physical,

economic and social resources. This observation stands also because rarely mobility outcomes emerge in a simple cause-effect items, and, instead, are shaped and framed by and in the interrelation of environmental, social, economic and cultural processes in different contexts and in different times (McLeman and Hunter, 2011: 450).

Correspondingly, people who cannot move in the immediate aftermath of a catastrophe seem to be trapped by exogenous shock, because of their lack of resilience and adaptive options, and, whenever they can move, their vulnerability is likely to increase rather than to be reduced (because often they are exploited, discriminated and denied the basic needs and rights): as pointed out by the work of Black (2011) that shows how different factors (race, gender, age, political and juridical status, health, income, occupation and education levels) make people more vulnerable and less likely to move (in the following **Graph 4**).

This graph clearly illustrates also what's happened in the case of Sarno. Vulnerable people (mostly the elderly) were the people who were generally trapped and not able to move. People with high level of capital (and low level of vulnerability) had more agency in the movement.

**Graph 4: Trapped population**



*Source: Black, Bennett, Thomas and Beddington, 2011: 449.*

If adaptation means the capacity to adapt to a given event (single catastrophe) or to a sum of events (long-term degradation), it is possible to assert that the mobility induced by a catastrophe or by a long-term degradation means the incapacity of a given community to cope with the events and that relocation or resettlement symbolise a general failure in the adaptive strategy (Gemenne, 2009).

For these reasons, voluntary mobility, spontaneous relocation, forced and permanent displacement “*would in no way constitute an “adaptation” in the sense of an avoided impact*” (Barnett and Webber, 2010: 29) from disastrous sudden onset events or long-term environmental degradation. Sarno and Cerzeto, in fact, show that a lack of concerted policies with local communities and between local and national level institutions can hinder the implementation of adaptive policies, because the dialogue among experts, authorities and the local population seems to be the only factor that radically reduces vulnerability.

Thus, as showed from the Italian examples, to enhance a successful cooperation and co-management (Sen and Nielsen, 1996) among all administrative levels and sectors (private and public) and to enhance an involvement of local communities in catastrophes response, a legal framework for coordination is needed both for Global North and for Global South.

### ***Different options for different geographical areas?***

Mobility is rarely mentioned as an adaptive solution for Global North contexts, while it is often suggested as an option for Global South ones. Moreover, the fact that even in the Global North mobility seems to be more a failure rather than a response to environmental degradation, casts doubts over all the theory that considers mobility as a proactive adaptation strategy. The examples of Sarno and Cerzeto are, in this sense, blatant: mobility occurred, but it was not a strategy. It was a “last resort.” To conclude it is possible to consider adaptation as all the policies and *in situ* measures realized to cope with the catastrophes and the possible future hazards.

Adaptation is an outcome of dealing with environmental degradation impacts as a process of continuous social and institutional learning, adjustment and transformation at all levels of government, particularly relevant in the context of local and regional scale decision-making. The social, economic and juridical dimensions in/of a given community

create a sphere of options that not only impact environmental degradation, resource allocation, environmental inequalities and vulnerability, but which represent the only way to prevent catastrophes and natural disasters, adapt to them and resist to the stress before considering displacement (Pelling, 2003). Mobility, both in Global North and in Global South contexts, because of the negative impacts that they can have on communities, should be considered more as a last resort response than a proper strategy.

This attitude reflects the underestimation of this phenomenon and the presumption to have “the” solution when considering the measures to be taken in other geographical contexts to cope with environmental degradation. The evidence from other case studies both in the Global North and in the Global South and from the fieldwork in Sarno and Cerzeto pointed out how mobility cannot be considered as a form of adaptation. I can now approach the concept of resettlement, its consequences on individuals and communities and its political consideration/implementation/interpretation in different geographical contexts.

#### **IV.1.b Environmentally induced resettlement: a planned choice?**

T The example of Cerzeto and the forced displacement in a new site, namely “*the process of collective dislocation and/or settlement of people away from their normal habitat by a superior force*” (Shami 2003: 4-5), in the aftermath of the 2005 landslide can be an important step in the reconsideration of the resettlement as a form of *ex-ante* or *ex-post* strategy to prevent or cope with the negative impacts of environmental degradation and catastrophes.

The consequences that top-down policies can have on the communities involved in resettlement programmes have to be analysed considering previous experiences in different geographical areas to analyse their impacts on communities, even if the scientific literature has generally focused on resettlements consequent to development projects both for the Global North and the Global South, as showed in the following sections.

## ***Resettlement and catastrophes***

Resettlement is an emerging issue in the environmental migration domain: it is only since about 2000 that it has been regarded as a possible consequence of environmental degradation. It is considered as a preventive measure to adapt to the effects of climate change, as in the case of the Pacific Islands<sup>105</sup>, or to avoid the impact of natural hazards, as the Italian NGO Legambiente pointed out (2000).

Legambiente, in fact, considers the preventive resettlement as an adaptive strategy to prevent environmental degradation or catastrophes, even if apart general good policies, it does not give concrete examples to operate it. Resettlement has been described as “*a tool in prevention and disaster preparedness, as well as in post-disaster recovery and assistance phases of a disaster*” by the Global Facility for Disaster Reduction and Recovery<sup>106</sup>, managed by the World Bank to contribute to the implementation of the Hyogo Framework for Action by including disaster risk reduction and adaptation to climate change in the development agenda of a series of priority countries in the Global South. Even considering that preventive resettlement could be an opportunity for involved communities, it is important to consider the major issues that characterise this phenomenon<sup>107</sup>.

## ***A traditional option for infrastructural projects in the Global South and in the Global North***

The growing attention in the scientific arena to the phenomenon of environmentally induced displacement since the mid-‘90s is due to the importance of the social, legal and economical implications of resettlement on communities. However, resettlement processes are rarely mentioned in the macro area of

---

<sup>105</sup> Among the others, Collins (2009), points out that the resettlement in this area could be a solution to cope with the impacts of climate change.

<sup>106</sup> The Global Facility for Disaster Reduction and Recovery provides technical and financial assistance to high-risk low- and middle-income Countries to mainstream disaster reduction in national development strategies and plans to achieve the Millennium Development Goals.

<sup>107</sup> It is the opinion of the Author that resettlements should be avoided wherever possible by considering all the viable alternatives, such as *in situ* risk reduction and adaptation measures, and in particular the enhancement and restoration of the livelihoods of people at risk, which seem to be more economically and socially sustainable options in the long-term.

environmental migration studies. The resettlements, in fact, are traditionally more linked to the concepts of compensation, financing and penal responsibility and connected to forced mobility due to development or infrastructural projects (Sarraf and Jiwanji, 2001).

Since the early 2000s the research on displacement and resettlement has mostly focused on the consequences of natural resource extraction, urban renewal, development programs, the construction of industrial parks and infrastructural projects or nature conservation projects, such as for the involuntary resettlement in the Vietnam First Highway Rehabilitation Project, which involved a total of 10,722 households provoking short-term and long-term economic losses and serious damages to social cohesion (Rapp and Agrawal, 1999).

In this sense, it is possible to identify different works that try to analyse the impact on displaced communities of large development project in both the areas of Global South and Global North. The example provided by the large-scale resettlement caused by the Sardar Sarovar Dam of the Narmada river in the district of Madhya Pradesh in India shows how deep the impact of the transformation of the landscape on the life of the people living in the affected area can be, and what kind of cultural, social, political and economic problems this kind of processes can have in the short and medium-term as pointed out by Flood (1997). In this case, 245 villages, namely 40,727 families, have been or are still being displaced, without any regard to the necessities of the people affected by the project and its consequences on local environment and communities (Colchester, 2000).

Considering another example from the Global South it is possible to mention a work by Cernea and Guggenheim (1993) who underlines how the displacement of 50,000 people in Indonesia for the upgrading of roads in Jakarta jeopardised the well-being of affected communities, their political participation and agency, in particular indigenous people, women and other vulnerable groups, often ignored by the literature and the authorities.

In the same sense, the work of Lassailly-Jacob (1983) specifically discusses land-based resettlement strategies in African dam projects, suggesting that resettlement plans should include provisions for the access of affected people to adequate productive farmland, full-title for land and development programs targeting the resettled in the site of destination. According to Scudder (1996), in addition to emotional and physical



losses, displaced people can also suffer due to a loss of entitlements to access land, other natural resources and income opportunities.

This evidence is not a prerogative of Global South countries. Other examples from the Global North, in different cultural and social contexts can reinforce this observation and open new paths of research. The ethnographic work on the contestation of the Alqueva dam in Portugal (Wateau, 2010), shows how the culture and its practices can be inscribed in the space and how the loss of “living and cultural space” can negatively influence the life of communities involved in forced resettlement.

Ortolano et al. (2000) examine the impacts of the Grand Coulee Dam Project in the United States that lead to the resettlement of about 6,350 people, considering the negative impacts on indigenous population in the USA as well as in Canada. Scudder (1996) analyses the displacement of the Cree people in Canada’s James Bay Power Project considering the political mobilisation against this infrastructure. Berman (1988) looks at the negative impacts on 300 indigenous families of the resettlement due to the construction of the Garrison Dam in the United States, highlighting how, even if the negative outcomes concern the whole community, the most vulnerable people (in this case the indigenous population) can be more deeply affected by the top-down decision.

In Italy, for example, in the aftermath of L’Aquila earthquake, in 2009, the inhabitants of the old town have been partially resettled, which has sparked a huge debate around the necessity of the displacement, the unfairness of the compensation given to the resettled population, and the unsustainability of the new buildings, depicted in **Photo 23**, page 263. It is interesting to notice how, when the houses were delivered to the local population, Italian flags were positioned on the balconies. Underlining the power and the physical presence of the State, in the case of L’Aquila, has been instrumental in the attempt to building consensus on the resettlement.

Even if large-scale displacements are less common in present-day industrialised countries, there are numerous past occurrences of development-induced displacement in Europe and in North America: In addition, resettlement as a consequence of catastrophes or environmental degradation, seems to be a crucial feature in the national policies at global level both in the Global North and in the Global South, because of its economic and social consequences.

**Photo 23: The new buildings in the “new” Aquila**



*Source: versolaquila.com (2012)*

Another “historic” Italian example can be given by the resettlement of the biggest district of the town of Pozzuoli (near Naples), more than 27,000 inhabitants in total, to the area of Monterusciello in the ‘80s because of bradyseismic events. Following the relocation, the new district has become a sort of company town, in which the urban structure (following **Photo 24**) fully reveals the drama that surrounds a forced resettlement with no considerations of the aspirations and needs of local communities.

**Photo 24: The new buildings in Monterusciello after the Pozzuoli bradyseism**



*Source: gennarodelgiudice.blogspot.fr (2011)*

### *The social impacts of resettlements*

A critic to resettlement as a strategy to prevent or to respond to environmental degradation can be based on the consideration of its negative impacts. The example provided by Cerzeto demonstrates how, also in the Global North, the resettlement consequent to a catastrophe transforms the people and the society. Resettlement processes have the potential to severely affect the life of a given community. The complex consequences of resettlement – both in term of social desegregation and economic and cultural impoverishment – modify the geography of the affected sites and transform the relationship of human communities with the landscape, its elaborations and representations, and the discourses about it (Prince, 1920).

In order to minimise and reverse the negative effects of forced relocation on individuals and on the economy, and to help people re-establish on a productive, self-sustainable basis, adequate policies and purposive implementations are needed, according to Cernea (1988). The US Inter-organisational Committee on Principles and Guidelines for Social Impact Assessment (2003: 231) defines social impacts as “*the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values and beliefs that guide and rationalise their cognition of themselves and their society.*”

These changes may affect employment, income, production, way of life, culture, community structures, political systems, environment, health and well being, personal and property rights, and individual and collective fears and aspirations. Resettlement may cause major cultural<sup>108</sup> and social disruption (because of unemployment and the augmentation of crime rate) but also given from the feeling of isolation and exclusion, as reported by Viser (1972) and Jibril (1990) who analyse the Kainji Dam in Nigeria.

There are also psychological and communitarian consequences that add to the high cost of involuntary resettlement. For example, as noticed by Olawepo (2008), after the construction of the Jebba Dam in Nigeria (in the ‘80s), despite the structural improvements for the resettled community (more modern houses), most households

---

<sup>108</sup> E.g. the loss of archaeological sites and other cultural property (Shihata, 1993).

suffered negative impacts from the dislocation as farmers were far from their land and fishermen were impeded to work.

Homelessness can be also considered as “placelessness” (Relph, 1976), the loss of a cultural space and of an identity: the case of Tignes, in France, appears of particular relevance in this respect. The village in question was completely submerged because of the construction of a hydroelectric dam in the Isère valley in 1952 (Huguette, 1994).

Once every 10 years the lake behind the dam (Lac du Chevril) is drained for maintenance work and the remains of the old village become visible. On these occasions, former inhabitants organize a procession in order to celebrate their sense of belonging to this place. These features cross with the feeling of powerlessness that is often present in relocated communities such as the pre-existing community structure (especially in traditional context) and the social network.

In this sense the resettlement seems to disintegrate the sense of belonging to a place or to a community: the weakening of social bonds (e.g. due to the sentiment of jealousy within the community because of different people obtaining different kind of houses), and the loss of time-honoured sacred places (such as cemeteries) can create a feeling of alienation also in democratic contexts.

### ***The economic impacts of resettlement***

Beside the social consequences of resettlement, economic impacts remain one of the most debated elements when considering resettlement plans, as they are central not only to the assessment of overall outcomes for the local population, but also because the cost-benefit analysis between the recovery of the old site and the construction of a new site as well as to the analysis of economic and political interests which could be linked with either choice, as pointed out by the work of Cernea in 1999.

In his work, he provides different examples, from different contexts, analysing the dramatic implication of the involuntary resettlement on individual, households and communities. In the aftermath of a displacement or a resettlement, communities can suffer from the loss of agricultural land, dwellings and other farm buildings, shops, schools, hospitals, roads and infrastructures, commercial and industrial buildings, but

also from the loss of access to common property resources, job and income opportunities<sup>109</sup>.

In Cerzeto, just like in the other cases mentioned for different geographical contexts, the resettlement has entailed impoverishment, because the national government assumed that the compensation for basic material losses (e.g. the new houses or the lost land) would be sufficient to successfully resettle people, disregarding their feelings and the collective imagination of a given place, the occupation of the people living in the area, in particular for those whose work is strictly related to the territory (e.g. farmers or breeders).

Ayanda (1988) points out that involuntary resettlement affects the organisation and structure of local markets and that, new solutions, should be proposed when considering a resettlement plan. In the same sense goes the work of Stal (2010), who points out how the relocation in Mozambique in the aftermath of 2007 inundation provoked 100,000 homeless resettled in “reception centre” that, from temporary, has become definitive.

Impoverishment can be a direct consequence of resettlement, as described by Cernea (1996). In fact compensation/rebuilding of new houses are not sufficient element to avoid impoverishment: forced displacement or resettlement should be negotiated with the community to make everyone better off, in terms of capabilities and opportunities, and ultimately freedom and self-determination (Sen, 1999 and Nussbaumm, 2003): *“the idea of compensation is an idea of replacement, and while in theory this could be an idea about replacing lost opportunities, the practice of compensation is inevitably a practice of material replacement: money for land, land for land, house for house”* (Oruonye, 2012: 6).

However, the point is that the idea of using material replacement as a criterion for justice is simply a bad idea (Rawls, 1976), because even with material replacement, resettlement still leaves people worse off. Replacement land may not be as productive. If it is equally productive, it may require different cultivation techniques that the resettled population is not familiar with. Families may not be able to use monetary compensation to purchase equivalent land or housing and *“resettlement, even with*

---

<sup>109</sup> In a research on the economic impact of the resettlement of the communities living around Lake Chad in Nigeria, Oruonye (2011: 245) points out that *“Contrary to the expected benefits, enhanced income, higher standard of living, increased employment opportunities [...the displaced...] have experienced the worst hardships in their life resulting from poor land fertility, displacement, deception and land deprivation”*.

*compensation, may leave them worse-off in more subtle ways, with respect to social goods of other kinds”* (Drydyk, 1999: 5).

Economic opportunities for the displaced are crucial when considering resettlement: they should be tailored on the community’s previous activities, reflecting the skills and aspirations of the population and expanding them when needed (including through training and support to local micro-enterprises and businesses). However, the evidence from Sarno and Cerzeto shows that there is often no communication with the local community and that the needs of the population are completely overlooked. The fact that in Sarno there are still evacuee families waiting for their house, and that in the “new” Cerzeto there is no school, no post office and no church reveals the misrecognition of the needs of the communities and the complete lack of participation of the local actors in the definition and implementation of the plan.

Examples from Global North prove that top-down resettlement never is a solution to respond to an exogenous event and it can under no conditions be considered as a planned adaptive strategy to prevent the impact of environmental degradation or catastrophes. Because resettlement implies long-term losses and social problems and that mobility (even if planned) is not a form of adaptation, it seems premature to talk about the relocation of communities living on Pacific atolls or islands to other places (Gemenne, 2010a), instead of focusing on actual adaptive strategies that are and will be required in order to prevent the negative impacts of global environmental degradation.

Most resettlements do not consider in its planning the *minimisation* of the environmental effects to prevent negative impacts on natural ecosystems in the source and destination areas; the respect for the historical, social, and economic features of the community, to develop an efficient and fair resettlement policy; the implementation of an income restoration program to prevent the negative effects of loss of resources and livelihood opportunities, in particular for more vulnerable groups (the elderly, young, disabled people, immigrants and ethnic minorities, nomadic communities, indigenous people and women), including through social support, services and means of subsistence; and the participatory and active involvement of the community (and of the local associations) in the definition of its future, in order to avoid feeling of alienation and negative psycho-social consequences (Olawepo, 2008).



### *A different geometry of power*

Indeed, while resettlement should be a last resort option for communities at risk to prevent or adapt to environmental degradation or catastrophes, sometimes it is purposefully presented as the only viable risk reduction solution, in particular in contexts more prone to risk and natural hazards.

Based on the evidence provided by the Cerzeto and Sarno cases and by other examples in both the Global North and the Global South, it seems very evident that powerful actors in local and national institutions purposefully use environmental degradation as an excuse to conduct forced displacements or resettlements. This is also used to justify a post-recovery rather than a preventive approach for economic and geopolitical gains and in order to enhance a deep control on minorities and indigenous people.

The control on territory and on the people living in a given space becomes, in this sense, a political exhibition and a useful tool in the reaffirmation of power. In fact, as noticed by Skeggs “*Mobility and control on mobility both reflect and reinforce power*” (2004: 211). Furthermore, in the specific Italian case, it seems that the opportunities for corruption in the construction of a new site for the community largely benefitted specific stakeholders, with ascertained negative economic and environmental consequences on the community.

Another significant element of the analysis can be retraced considering the fact the all international recommendations concerning resettlements are addressed to Global South countries and that rarely the Global North figures in studies or reports concerning the social, cultural and economic impact of resettlements, despite of the fact that even in industrialised contexts top-down relocations are used as prevention and response measure before or in the aftermath of catastrophic events. This additional element gives me the opportunity to further develop the idea that environmentally induced displacement is a phenomenon underestimated in the Global North and exaggerated in Global South contexts.

Therefore, after having individuated the main consequences of environmentally induced resettlements, it is necessary to understand how people involved in environmentally induced displacements define themselves and how, instead, the theoretical debate defines these populations and limits the study to specific areas of the Globe.

#### IV.1.c The vocabulary about the displaced and the resettled

*“Labels are important [...] This is not just semantics—which definition becomes generally accepted will have very real implications for the obligations of the international community under international law. The concept of environmental or climate refugees, including speculations on their numbers and the threat they pose, can be instrumentalised for purposes other than the protection of and assistance to the forced migrant”* (Brown, 2008: 13). From this quote it is possible to understand how the used concept in the academic debate, by media, by institution and NGO, even if it refer to the same subject, put the accent on different dimensions of a same issue, creating a misleading reality about the patterns of the human mobility. This is why in this section I focus on the different label used to refer or to define the environmentally induced displaced communities.

##### *Words to explain, words to complain*

In both examples from Cerzeto and Sarno, neither the institutions, nor the media, nor the affected people talk about “refugees,” “displaced,” “migrants”. The only “official” definition that experts, associations and NGOs gave during the interviews I made in the exploratory fieldwork is the one used in both research sites by the National Civil Protection that consider the concerned people as *“sfollati/evacuati”*, namely “evacuees”, completely denying the agency of the affected people and minimising the fact that the experienced mobility occurred in the aftermath of a catastrophic environmental event.

The other appellation, in particular used by the media that (rarely) still talk about the two landslide-affected communities and their consequent mobility, is the rather generic term of “victims”, also used by media and authorities in the case of Katrina (Venturini et al., 2012). This shows that if their *status* is recognised in a simplistic way in the short-term, on the long-term their specific condition seems to be completely forgotten.

The rhetoric used by the authorities also reflects in the discourse of the people involved in the catastrophe. The totality of the interviewed people do not recognise themselves under the label of “refugee”, “displaced” or “migrant”, but principally as “victims”. One person in Sarno (M.) told me *“I’m not a refugee. I’m not an African.”* From this answer, it is possible to extrapolate all the media and institutional

superstructure surrounding the phenomenon of environmentally induced displacement, which often connects stereotypes and labels to specific categories of people and presents the phenomenon as only taking place in specific areas of the Globe. Considering again the case of Katrina, in a Global North context, people involved in the catastrophes rejected the utilisation of “refugee,” and preferred the definition of “victim,” considering the first label too stereotyping and stigmatizing (Venturini et al., 2012).

In the opposite sense, the case of the landslide occurred in 1999 in Vargas, Venezuela, shows how the authorities, the media and the people define themselves “damnificados”<sup>110</sup> (Revet, 2002). The Spanish term echoes Frantz Fanon’s 1961 “Les Damnés de la Terre”: apart from the common Latin origin, one can suggest that more than “victim” the term “damnificados” is associated with the idea of “miserable, pitiable” and to the idea of an “inescapable” condition of the people involved in the tragedy. Moreover, following the catastrophe, a “Plan for the Dignification of the Venezuelan Family” was set up as a part of the first social policy programs of the Chávez, and more than 100,000 “damnificados” families were relocated (Vásquez, 2008). The self-definition of “victim” for the people involved and the use of the strong “dignification” term in the description of the recovery plan reveal how the category-construction processes is important in the aftermath of a catastrophe in orienting the adoption of public policies at local and global scale.

Based on the theories of Goffman (1963) about the social stigmatisation of the specific status, label or definition given to specific categories<sup>111</sup>, it is possible to highlight how the definition of a phenomenon not only reveals its intrinsic meaning, but can also be related with its symbolic value. The two lexical approaches adopted in the North and in the South reveal not only that different labels are adopted to define a same phenomenon, but also that the whole rhetoric framework surrounding these definitions has implications in terms of political and economical responses.

Apart from the different kind of definitions, it is also interesting to notice that in the Global North the authorities are in a sense “external” and operate as “capable” exogenous actors in the rehabilitation in the aftermath of catastrophes. The Fukushima catastrophe is emblematic, with the self-efficiency of the Japanese authorities and the “dignity” of the Japanese people always underlined by the media: *“The Japanese have managed to maintain their dignity in spite of extreme provocation”* (BBC,

---

<sup>110</sup> Translated in English as “The Wretched of the Earth.”

<sup>111</sup> For example refugees, but also white, black, woman or man, disabled...

29/03/2011<sup>112</sup>). On the contrary, in Global South contexts the authorities become often part of the affected community, playing a self-victimisation role to get humanitarian or development aid from the international community (Benadusi et al., 2011). From an anthropological view, the Authors consider that coping with emergency through humanitarian aid characterizes the current logic of interventionism that repeat a well-known paradygm between “us” and “them,” donors and receivers, locals and expatriates.

In this sense, it is important, of course, to define the phenomenon according to different categories, but it is crucial not to focus only on the definition, but on the essence of the phenomenon, which is very significant also in Global North countries. If, from the one hand, a unique definition of the phenomenon *risks to “over-simplify the true situation and it is generally recognised today that simple population-environment links are of little theoretical and/or practical use”* (Flintan, 2001: 2), on the other hand, the complete denial of this phenomenon generates a misleading presumption about the “not-existence” of the phenomenon in itself, as *“labelling matters so fundamentally because it is an inescapable part of public policy making and its language: a non-labelled way out cannot exist”* (Zetter, 1991: 59). Hence, while generally people refuse to be defined as environmentally induced displaced or environmental refugees, it is interesting to analyse the different labels proposed to describe the phenomenon.

In parallel with the Global South authorities that become part of the community in opposition to, and at the same time seeking help from, Global North countries and International Organisations, the local press assumes a similar stance in the face of the national one, as we have seen for the case of Cerzeto. The local media, being “near” to the core of the affected communities, become their mouthpiece in opposition to the mainstream discourse.

The opposition between local and global (Mlinar, 1992), typical of the contemporary globalisation, is a central issue in this analysis. According to the author a new geometry of power is constructed between the de-territorialisation (flows of people, goods, capital and information spurred by technological and political change) and the local or regional identity that get reinforced in stereotypes and self-referential cliché constructing a new “cultural” narrative.

---

<sup>112</sup> BBC, “*Viewpoint: In awe of Japan’s dignity*”. Available at: <http://www.bbc.co.uk/news/world-africa-12847408>, last access March 2014.

### ***A Global North based approach?***

Recent studies (among others Gemenne, 2010b), have pointed out how, in the mere notion of migration and in the idea of the abandon of an area affected by environmental threats, it is possible to retrace a Global North based point of view, in a “*relativistic way*” (Gemenne, 2010a: 105). This vision often considers migration as the only and ineluctable strategy for the households hit by environmental hazards or degradation, and does not take into account the cultural specificity of each community or household, the power structure within it, the socio-political, economic context and, broadly speaking, any other structural factor, including public policies and regulations (disaster relief and recovery programmes). In fact, the household and community context contributes drastically to the decision to migrate or to flee in the face of an extreme event, or even to not move and find other adaptive strategies to cope *in situ* with environmental degradation.

The migration or the flight of household members, in fact is seen as a reflection of the household-level survival and income diversification strategies (depending on wage levels and employment opportunities, as pointed out by Sjaastad, 1962), and depends on household size and composition (natural disasters have distinct age, race/ethnicity and gendered effects), household income (the role of the remittances is crucial in adaptation strategies) and assets (migration may not be an option for the poorest and most vulnerable groups), ownership of land and goods, previous migration experience and migration networks (Hugo, 1981), individual perceived relative deprivation (in material and immaterial goods), expectations and confidence in institutions, media and scientific forecasts (when possible) both in Global North and in Global South contexts. Beside the academic debate, which expresses the difficulty to relate such a complex and multi casual phenomenon to a single definition, we have to underline that the use of all those definition still remains a prerogative of Global South communities.

The labelling process and the entire lexical framework built around the issue of environmentally induced displacement minimises or denies the negative impacts of environmental degradation in Global North sites. Thus, the phenomenon of environmentally induced displacement should be considered in a broader context of analysis on the impact of human activities on environment and on the effects that environmental degradation has on human communities on the short, medium and long-term.

\*\*\*

Through the perception and the evolution of specific terms related to the environmental degradation and mobility nexus it is possible to recognise a marginalisation of the phenomenon of environmentally induced displacement in specific areas of the Globe. As confirmed by evidence from the empirical exploratory fieldworks in Sarno and Cerzeto, where the significance of spontaneous mobility and top-down resettlement has been completely minimised, it is possible to identify a specific attention on the phenomenon of mobility linked to environmental degradation and catastrophes only for the Global South and the complete denial of the same phenomenon in Europe or in North America.

First of all, the idea that mobility could be an adaptive strategy for people affected by a catastrophe seems to be incoherent with the evidences from different examples from both the Global North – e.g. in Sarno – and the Global South – e.g. in Egypt –, which show how it is more a failure of adaptation rather than a chosen option – in particular in the short-term – and that it is strictly related to other elements that define the pre-event vulnerability of an individual, a household or a community (as seen specifically in the example of Sarno). Even considering it as an adaptive option, it seems it is only really suggested for Global South countries, contributing to the idea that since mobility is a good option for people involved in a catastrophe, a great number of individuals will adopt this strategy in the Global South.

Secondly, the idea that resettlement could be a suggested option for the *ex-ante* prevention or the *ex-post* rehabilitation from hazardous events, shows a political design. Even if resettlement is a top-down practice used by both Global North and Global South authorities, as shown by different examples in several contexts, the recommendations from good practices and studies on the social, economic and political impact of relocations and resettlements in the medium and long-term often refer to Global South experiences, completely denying the phenomenon in Global North countries, even if the example of Cerzeto allows to understand how important are concerted policies in democratic countries, too.

Thirdly, the definition of the phenomenon has been analysed pointing out not only the differences according to the different areas in which they are used, but also revealing



what impact can have the definitions and the labels in the stigmatisation of a specific phenomenon.

These three elements of analysis are a first step in the recognition of a misleading perception of the phenomenon in the Global North. From these first elements it is now possible to try to understand more in depth what are the main features of the mystification of the concept of the environmentally induced displacement that took place during the last decades, especially concerning popularity of the issue, the consideration it received by the media at global level, its predicted numbers and evolution of scientific attention on specific geographical areas of study as a second step for the recognition of the misleading perception about the issue in the Global North.

## **IV.2 Three components of the representation**

### **Introduction**

The conceptualisation of the environmentally induced displacement issue needs to be investigated also considering three aspects that contribute to its representation: the increasing attention on the phenomenon; the predicted numbers of affected communities and the case studies analysed to support this theoretical approach are other crucial elements useful to understand the different frameworks and definitions given to the phenomenon.

The examples of Sarno and Cerzeto, their political narrative, the self-definition of the affected people and the representation of the event and of the population's mobility given by the media, all show how in Italy the phenomenon of environmental induced displacement is completely denied. Moreover, other cases from contexts both in the Global North and in the Global South have contributed to understand how the phenomenon is subject to different forms of discourses and how it is overused or completely denied according to a geographical criterion.

Can we recognise a misleading attitude concerning this phenomenon? What actors contribute to this approach?

In order to answer to these questions, in the first section I analyse how in the last decades, media and “grey literature” – institutional, projects, technical reports published by ministries, or research teams, pamphlets by NGOs and associations, but, in particular, media documentation – contributed to the sensitisation and orientation of the public opinion on the phenomenon of environmentally induced displacement.

This analysis is done considering the work of some researchers (among the others Debachere, 1995) in the field of communication and based on personal research, principally on the web.

In the second section, I try to investigate the numerical approaches to the phenomenon. The idea to quantify and numerically predict the magnitude of a phenomenon to give it more concreteness is mainly driven by the necessity to catch the attention of public opinion, donors, institutions and authorities (among the others Blumer and McQuail, 1968 and McQuail, 2005). I analyse what are the main features of this

“safety in numbers” approach, underlying what are the principal actors contributing to the main quantification attempts.

The third paragraph of this chapter is devoted to the academic analysis of the phenomenon. This section shows how the prism of empirical researches influences the perception of the public opinion in the localisation of the phenomenon.

#### **IV.2.a An increasing attention on the phenomenon?**

Since its first conceptualisation to the 2000s, the public opinion increasingly focused on environmentally induced displacements. “Grey literature” developed an informational *corpus* of data in which the definition and the perception of this phenomenon remain very nebulous (Nicholson, 2001). There is a *corpus* in expansion where everybody can add information and where everyone can get informed. These two aspects create its complexity but also underline the difficulty in analysis.

The media is a primary source of information on environmental risks for the public (Wilson, 2000) and the environmentally induced displacement issue is no exception. Concepts such as “climate refugees”, “climate migrations”, “environmental refugees”, “environmental migrations” and “environmental displacements”, or other less scientific definition such as “tsunami refugees”, “famine refugees” or “nuclear refugees”, used as synonyms and referred to phenomena more or less linked with human mobility due to environmental degradation, create a misleading representation of a phenomenon for which the environmental nature of the push factor is very difficult to isolate.

This difficulty has been tackled, among others, by Norman Myers in his report “Environmental Refugees” prepared for the Climate Institute. *“It is often difficult, however, to differentiate between refugees driven by environmental factors and those impelled by economic problems. In certain instances, and especially as concerns cross-border refugees, people with moderate though tolerable economic circumstances at home feel drawn by opportunity for a better economic life elsewhere [...]. Refugees are pushed from danger, whereas migrants are pulled or attracted toward more viable destinations”* (1994: 7).

This proliferation in journalistic reports, TV debates, meetings, videos, photos, blogs, and documentaries on the subject, facilitated by their accessibility on internet, may hide a

misinterpretation of reality, based on gloomy predictions on and the entity of the population flows and their impacts.

In fact, it seems that the phenomenon of environmentally induced displacement is only ever seen in an alarmist way, producing more or less accurate information and allowing the consolidation of a public opinion based on prejudices and generalisations (Cohen, 1972). Emblematic examples of this non-academic literature having a big impact on public opinion can be represented by the following key cases that represent the first step for a further analysis.

### *The web*

The importance of the use of the web has tremendously evolved in the last decades, which is why its analysis represents a very interesting approach to the interpretation of social phenomena. Even if the World Wide Web is sometimes confusing and scarcely representative of the reality (Rogers, 2004), I decided to use it in order to obtain a first snapshot of the nature of the use of different terms referring to the same issue by the broadest possible group of users. In this sense, Google Trend<sup>113</sup>, can be a very useful tool of analysis to compare the trends in user searches, to identify the interest for a label<sup>114</sup> rather than another<sup>115</sup> and to understand how web searches have evolved from 2004 to 2014<sup>116</sup>.

The searches<sup>117</sup> for “environmental refugees” and “environmental migration” seem to appear earlier than the ones for “climate refugees” or “climate migration,” as show in **Graph 5**, page 278.

The term “environmental migration” has been the most searched in 2004-2005, probably because more immediately appealing for the general public. The attention on climate, rather than the environment, can be analysed considering the importance of climate change related issues in the late 2000s; the interest for “climate refugee” or

---

<sup>113</sup> Available at: <https://www.google.com/trends/>, last access February 2014.

<sup>114</sup> “Google Trends analyses a percentage of Google web searches to determine how many searches have been done for the entered terms compared to the total number of Google searches done during that time” (*ibidem*).

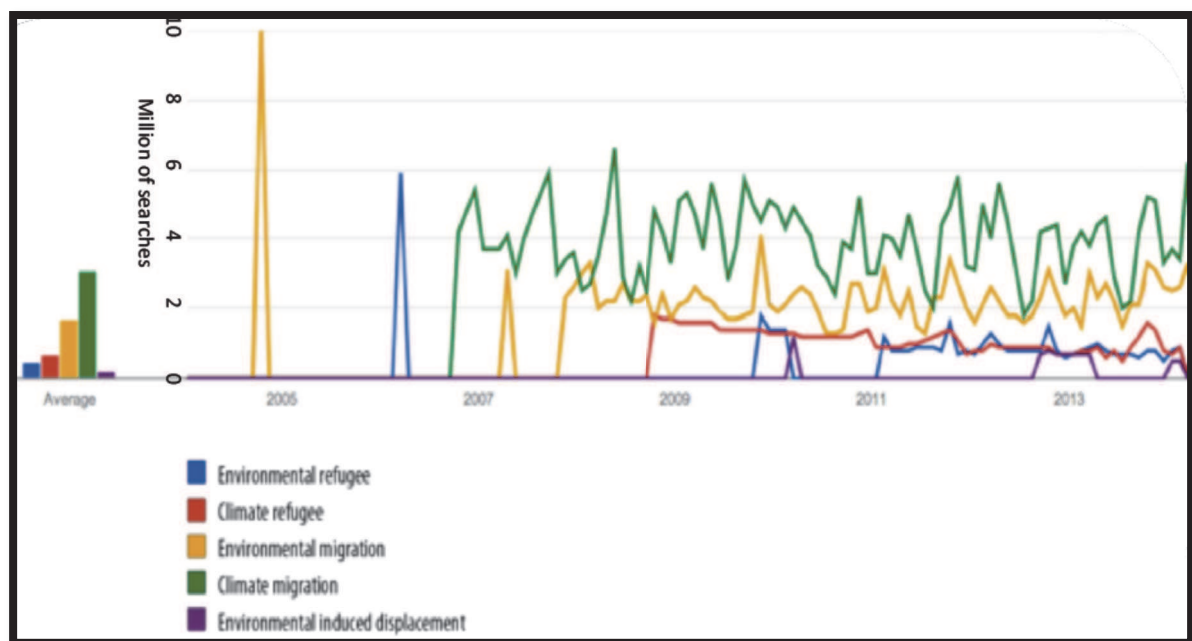
<sup>115</sup> The choice of the labels to be analysed is partially based on the article of Venturini et al. (2012), analysed *infra*.

<sup>116</sup> This time-range constitutes the period covered by this web service provided by Google.

<sup>117</sup> The results in Google Trends are normalized.

“climate migration” shows how the web searches about this specific topic started later (in 2006), but still remain significant in 2013 <sup>118</sup>. Considering the category of “environmentally induced displacement” – the label adopted in this research – it is possible to discover that the interest about this issue is less significant and less recent (2010) than the other categories considered <sup>119</sup>, maybe because perceived as less attractive. This analysis, related to global searches on a given phenomenon, seems to follow the users’ specific interests for specific concepts. The juxtaposition of the patterns in the evolution of the searches for different keywords gives the opportunity to discuss about the fact that a great confusion characterises the environmental degradation and mobility nexus and that the great themes of the public debate (such as the emergence of climate change related issues), generally orient the interests of the web searches.

**Graph 5: Evolution of the searched keywords, linked to the environmental degradation and mobility nexus**



*Source: Personal elaboration from Google Trend (2014).*

<sup>118</sup> The evolution of 2014 cannot be predicted based on the few data available so early in the year.

<sup>119</sup> “The numbers on the graph reflect how many searches have been done for a particular term, relative to the total number of searches done on Google over time. They don't represent absolute search volume numbers, because the data is normalized and presented on a scale from 0-100. Each point on the graph is divided by the highest point, or 100. When we don't have enough data, 0 is shown” (ibidem).

On the same lines it is possible to describe the work of Venturini et al. (2012) on the web searches on different labels used in a specific period in the current debate on the environmental degradation and mobility nexus (the analysed labels are presented in **Graph 6**, page 280).

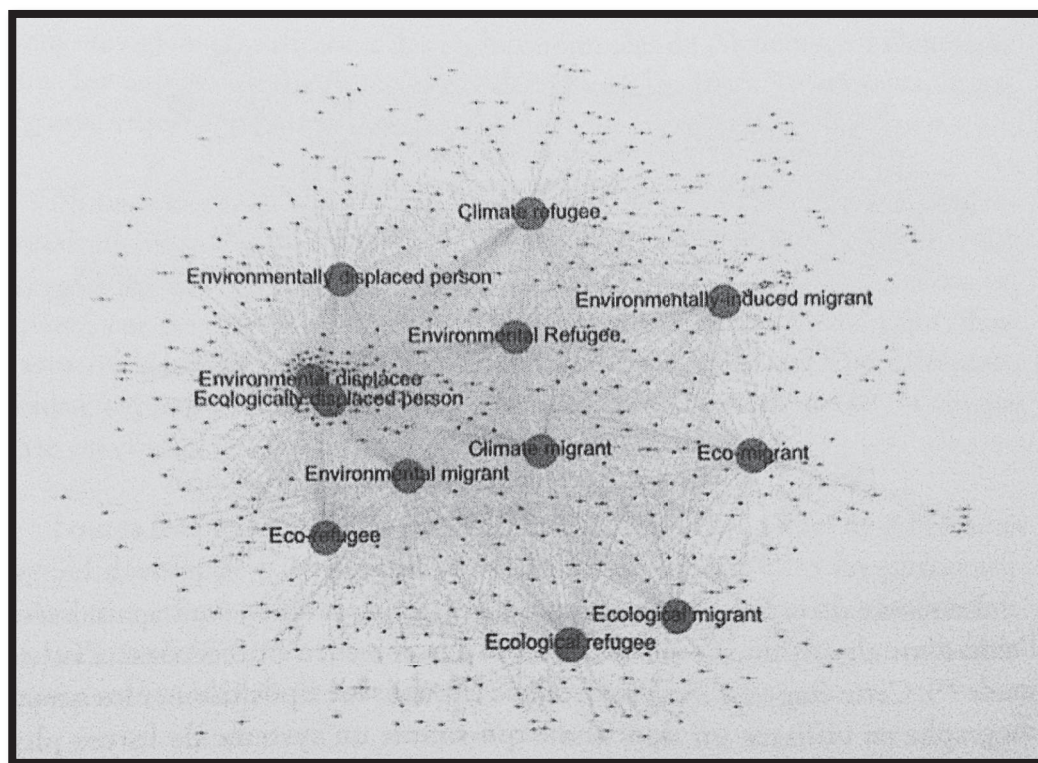
The research shows first of all the connexions existing among all the used terms, the organisation that provides them and the other concepts associated; moreover, as for my research, it underlines that the general “environmental migration” term is not more central than the other ones. Moreover, according to the authors, the confusing use of “migrant” or “refugee” means that the effort of international organisations and scholars to avoid the use of “refugee” has not been productive.

The use of the term “migrant” - more general and inclusive - would avoid the use of the term “refugee” that is not recognised by UNHCR in the case of movements driven by environmental degradation and implies other form of protection that are not in place to date. The research also highlights how the “environmentally induced displacement” discourse is connected to more neutral conceptualisations.

The researches show how confusing can the web description of this phenomenon be and how different concepts are associated to different phenomena, creating and reproducing a misleading reality that also reflects on the user searches, which are not used to distinguish categories and are often associated to specific issues or to specific geographical contexts.



**Graph 6: The web queries about the different definitions of environmentally induced displacements (2012) and their connexion**



*Source: Venturini et al., (2012: 146).*

### ***The press***

Concerning journalistic articles and reports, the different materials published on the on-line version of the main global mass media show how the information can sometime disseminate exaggerate data and prediction, pursuing purely sensationalistic purposes. The observation has not been carried out with the presumption to have a deep insight over all the different features that characterise the international press: it is just a general overview about the interpretation of the current debate about the nexus between environmental degradation and mobility. BBC News, in 2012, issued a “*Climate change migration warning: Governments and aid agencies should help the world's poorest to move away from areas likely to be hit by flooding and drought*”<sup>120</sup>; BBC Radio, in 2011, referred to “*World's first ‘climate change refugees’? Indigenous people from the Torres Strait islands in northern Australia have told the government they are*

<sup>120</sup> Available at: <http://www.bbc.co.uk/news/science-environment-15341651>, last access February 2014.

*in danger of becoming the world's first 'climate change refugees', due to the effects of rising sea levels in the region*"<sup>121</sup>. CNN International issued a reportage, in 2012, titled *"Man creates glaciers to save villages: A retired engineer's invention is keeping his community from becoming climate refugees"*<sup>122</sup>.

In 2012, Al Jazeera published a reportage on the Somalia famine through traditional journalistic approach<sup>123</sup>, but also providing a photo gallery and a videos collection, advertising: *"View Al Jazeera's special coverage of the famine,"*<sup>124</sup> talking about "environmental refugees". It also provided a special issue about Tuvalu Island labelling the concerned population "climate refugees" in 2011.

One can notice from this snapshot that, globally, journalistic reports tend to overestimate the phenomenon and to link it to specific geographical areas. This first intuition can be supported by the analysis done by Venturini et al. (2012), who consider that expressions like "environmental degradation", "climate change" or "natural disaster" are strictly linked with specific geographical contexts such as "'Asia', 'Pakistan', 'Australia', 'Bangladesh', 'Pacific Ocean', 'India', 'South Asia'" (2012: 151), generally localised in Global South countries.

Few references are made to environmental degradation in Global North contexts and the catastrophes in the two geographical areas are never compared, as they were different events. It seem that the Global North media systematically hide the phenomenon: it is not surprising that little or no attention has been given to the chosen examples – Sarno and Cerzeto – nor to the more sizable resettlements in the aftermath of L'Aquila in Italy.

### ***The images***

Photos and videos do not escape to the trend towards growing attention to the phenomenon. The 2011 National Geographic photo-gallery *"Japan's Nuclear*

---

<sup>121</sup> Available at: [http://news.bbc.co.uk/today/hi/today/newsid\\_9566000/9566432.stm](http://news.bbc.co.uk/today/hi/today/newsid_9566000/9566432.stm), last access February 2014.

<sup>122</sup> Available at: <http://edition.cnn.com/video/#/video/world/2012/06/04/udas-india-glacier-man.cnn?iref=allsearch>, last access February 2014.

<sup>123</sup> Available at: <http://www.aljazeera.com/indepth/spotlight/hornofafrica/>, last access February 2014.

<sup>124</sup> Available at: <http://www.aljazeera.com/indepth/spotlight/hornofafrica/>, last access February 2014.

*Refugees*”<sup>125</sup>, or the 2011 Guardian’s “*Somalia famine refugees tell their stories: interactive*”<sup>126</sup>, can be considered examples of how the media can misuse non-scientific concepts to target more directly the public opinion, creating and using new labels, such as “nuclear refugee” or “famine refugee”, which compromise the clarity of a phenomenon.

Other web instruments, such as Flickr, can also be useful to understand how public opinion on this subject can be moulded. Through this photo-sharing website, just by searching for the keywords “environmental refugees” or “climate refugees,” one can find a wide array of photos from the most recent major catastrophes worldwide provided by a number of different users; it is very difficult to find photos from the catastrophes occurred in Europe or in the States in the last years. International organisations also started to use those instruments to disseminate their information.

On the same website, Flickr, it is possible to find photo galleries provided by IOM<sup>127</sup> or UNCHR<sup>128</sup>: again, one can recognise how the media convey and distribute (and reinforce?) the mainstream information and point of view. The representation of the refugee completely focuses on a feeling of piety and commiseration, on the “human face of climate change.”<sup>129</sup>

In addition to photos, videos have become crucial instruments to create and disseminate information (Lawrence and Giles, 1999). YouTube or the French Dailymotion, two of the most used servers to share videos, present plenty of material (more or less trustworthy or scientifically sound) which aim to show the phenomenon of the environmentally induced displacement, creating confusion but also a significant stigmatisation of the concerned population and the localisation of the phenomenon. In this sense, the videos provided on the French website can be emblematic.

---

<sup>125</sup> Available at: <http://ngm.nationalgeographic.com/2011/12/japan-nuclear-zone/craft-text>, last access February 2014.

<sup>126</sup> Available at: <http://www.guardian.co.uk/world/interactive/2011/aug/11/somali-refugee-dadaab-kenya>, last access February 2014.

<sup>127</sup> Available at: <http://www.flickr.com/photos/iom-migration/6805854795/>, last access February 2014.

<sup>128</sup> Available at: <http://www.flickr.com/photos/iom-migration/6805854795/>, last access February 2014.

<sup>129</sup> The work of Fisher and Braschler (2011), traces a photographic record of all whom are experiencing the real effects of global warming and environmental collapse in Cuba, China, Russia, Peru and Bangladesh.

The research about “environmentally induced displacement” is associated to several documentaries about the displacement in Tharparkar district in Pakistan because of the drought<sup>130</sup>, no attention is given, for example, to the Xhyntia Cyclone of 2010. The images from Pakistan show woman and children waiting for international aid, a perfect exemplification of the stigmatisation of the vulnerability and lack of resilience in a specific country-based approach and a lot of commiseration. In this sense, it is possible to infer that the association environmentally induced displacement-Global South becomes immediate and reflects a mainstream unique-vision.

### *The other sources*

Among the other actors that participate in the production and reproduction of labels and categories driving the public opinion, NGOs and confessional associations should also be considered. Concerning this aspect, it is interesting to provide the example of the meeting organised by the World Council of Churches (WCC) in Bossey, Switzerland, from 22 to 23 May 2008, where representatives from a number of churches, as well as non-governmental and international organisations, met to discuss the impact of displacements induced by climate change.

The conference, focusing on the theme “*Climate change-induced displacement: What is at stake?*”<sup>131</sup> was organised by the WCC programme on climate change, in partnership with the Pacific Council of Churches and the German development agency Bread for the World. Participants in the conference analysed the progress made by the international community since 2010, following the conference on Protection and Reparations for “Climate Refugees.” Within this international framework, presenters shared case studies from Bangladesh, India and Sub-Saharan Africa to illustrate the “*vulnerabilities and capabilities*” of communities affected by climate change.

One of the video presented during the conference was titled: “*Have you seen the rainbow? Climate change, faith and hope in Tuvalu*”<sup>132</sup> (**Figure 40**, page 284).

---

<sup>130</sup> Available at: [http://www.dailymotion.com/video/x1f2f5n\\_tharparkar-people-displacement-due-to-worst-shortage-of-food\\_news?search\\_algo=2](http://www.dailymotion.com/video/x1f2f5n_tharparkar-people-displacement-due-to-worst-shortage-of-food_news?search_algo=2), last access March 2014.

<sup>131</sup> Available at: <http://www.ekkleisia.co.uk/node/16690>, last access February 2014.

<sup>132</sup> Available at: <http://www.youtube.com/watch?v=UXxX6FeBh2c>, last access February 2014.

Figure 40: Images from a documentary on Tuvalu (2010)



Source: Images from the video “Have you seen the rainbow? Climate change, faith and hope in Tuvalu” (2010).

Besides some wonderful images of the local landscape and the participation of local experts, the video includes parts on children reporting “*In the future Tuvalu will be under the sea*”, or the interview to the Rev. Tofiga Falani, president of the Congregational Christian Church of Tuvalu, saying “*The role of the church is to accommodate any issues that jeopardize the way forward for our people...because the people are carrying God’s image*”.

Some other documentaries (**Figure 41**, page 285) have been presented to several movie festivals, produced and distributed to raise public awareness on this issue, such as the 2004 reportage “*Tsunami refugees*” of Marginal Media Production<sup>133</sup>, the 2006 “*The Refugees of the Blue Planet*”, produced by the National Film Board of Canada, the “*Inside Disaster Haiti*”, a multiplatform documentary project about the 2010 Haiti earthquake and the humanitarian relief effort.

<sup>133</sup> Available at: <http://www.marginal.tv/pages/projects.html>, last access February 2014.



**Figure 41: Bring on screen environmentally induced displacements issue. The documentaries and reportages**



Source: Inside Disasters, The Refugees of the Blue Planet, The Marginal Media Production and the Climaterefugee.org (2011).

But the most successful movie on the topic of environmentally induced displacements can be considered the 2010 “*Climate Refugees*”<sup>134</sup>, considered by Robert Redford, founder of the Sundance Institute, as “*an agent for social change [...] a resounding wake-up call for every human being to go green immediately. It is a must-see film that puts the human soul in the science of climate change*”<sup>135</sup>.

In 2009 the German and French channel Arte produced a documentary about “The new climate refugees” (Victor, 2009): in this documentary the attention is given to the sea level rise in Maldives and in Bangladesh and the ice melting in Nepal. The possible impacts of the climate change are illustrated and with a particular attention to the communities that will be forced to move.

<sup>134</sup> Produced by Los Angeles Think Thank, Trulight Pictures, Video Project and Yarmony Foundation.

<sup>135</sup> Available at: <http://www.climaterefugees.com/>, last access February 2014.



Other documentaries or movies have been produced on the Katrina hurricane<sup>136</sup>, on the Fukushima disaster<sup>137</sup> or on the L'Aquila earthquake<sup>138</sup>, but they never specifically talk about environmental refugee or climate refugee, which both seem to be considered as terms specifically associated to Global South disasters. No movie mentions the landslides in Sarno or Cerzeto. At this point, the growing attention on the phenomenon of environmentally induced displacements by the media principally focuses on a representation of the global phenomenon that is becoming very popular across political divisions and cultural barriers. The “information like a show” (Livolsi, 1969) influences the global public opinion and creates a misleading social reality, creating/inducing/stimulating new cultural forms of piety and commiseration for Global South countries.

Already in 1974 Williams argued that the “*impression of ‘seeing the events for oneself’ is at times and perhaps always deceptive. An intermediary is always present if not visible, and this can be more misleading than situations in which awareness of an intermediary is inevitable. [...]. This has had important effects in the reporting of wars, natural disasters and famines*” (1974: 41).

The confusion in terminology, which could render the concept virtually meaningless (Suhrke and Visentin, 1991), derives from the fact that the mono-causality in the root cause and in triggering event of displacement is very hard to identify (both in slow onset environmental degradation and in sudden catastrophes<sup>139</sup>) among others migration

---

<sup>136</sup> A Wikipedia page is devoted to the movies, documentaries and fiction done on the US catastrophe, available at: [http://en.wikipedia.org/wiki/Hurricane\\_Katrina\\_in\\_fiction](http://en.wikipedia.org/wiki/Hurricane_Katrina_in_fiction), last access February 2014.

<sup>137</sup> “*The Fukushima 50*”, the true story of how the Fukushima 50 took on the daunting task of bringing the Fukushima Daichi nuclear power plant back from the brink of complete disaster and averted a meltdown of unprecedented proportions, saving an entire region and countless lives. How the bravery, honour and self-sacrifice in taking on this suicide mission, united a people and gave hope and pride to a nation crippled by one of the most powerful earthquakes and resulting Tsunamis in recorded history”, IMDB (2012). Available at: <http://www.imdb.com/title/tt1921116/> last access February 2014.

<sup>138</sup> “*Draquila, an investigation on the management of 2009 L'Aquila earthquake by Berlusconi government and his staff*” IMDB (2010).

Available at: [http://www.imdb.com/title/tt1650404/?ref\\_=fn\\_al\\_tt\\_1](http://www.imdb.com/title/tt1650404/?ref_=fn_al_tt_1), last access February 2014.

<sup>139</sup> In most cases displacement is temporary, as most displaced people seek to return to rebuild and continue living in the ways and places with which they are familiar (Black, 2001). Such movements are also typically over short distances: few people who are displaced by disasters cross an international border. “*The patterns of movement tend to be largely determined by social networks, as people move to stay with family and friends*” (Barnett and Webber, 2009: 7).

drivers (Black, 2001; Castles, 2002); moreover, this confusion result for example in the fact that “*different arenas of discussion mostly point to climate migrants by putting aside all other cases of environmental displacements*” (Felli, 2008: 21).

### ***The process of spectacularisation***

The growth in attention on and coverage of this specific issue clearly results from the analysis of the global media, including the press, multimedia materials and the Internet, and can certainly be considered a crucial step in order to develop the interest of the public opinion for this phenomenon. To do so, though, the multiplication of available information should be accompanied by a transparent communication about the reality of the phenomenon and the implications of each label used. Each category requires governments and international agencies to use different policy and legal frameworks.

The spectacularisation carried out by the media in the aftermath of a catastrophe on the people affected by the event is one of the main features of the postmodern society (Kumar, 2004). In the two examples of Sarno and Cerzeto, the “use” of the images of the “victims” and the spectacularisation of the damages has been essential in order to demonstrate the powerlessness of the authorities in the face of the event (for Sarno) and in order to justify the decision to adopt a top-down approach for the resettlement (for Cerzeto).

In other cases, principally in the Global South – as for the cases of Tuvalu (Ollitrault, 2010) and Venezuela (Revet, 2002) – NGOs, local associations and authorities renew the politics of victimisation to achieve political and economical gains. Again, the refrain of the Global South “victims” helps governments to receive aid, in traditional and innovative forms, because of an obligation to help on the Global North countries. Facts, figures and images are in this sense used to show, produce and reproduce stereotypes and categories to describe the phenomenon and mould the social imaginary about it.

Different actors participate in the spectacularisation of the environmental degradation and mobility nexus: media, authorities and researchers contribute to constructing general ideas about the fact that a particular country needs “to be helped,” or that another is “self-sufficient.” The mainstream approach has assumed a global reach, imposing all around

the world its theoretical framework, as well as its clichés and geographical stigmatisation. These dichotomic stereotypes create the conditions for the political interference by the Global North in the Global South and for the use of top-down politics in Global North countries.

#### **IV.2.b Flow estimations and predictions: do numbers matter?**

The examples of Sarno and Cerzeto showed that the individuals and communities moving as a consequence of a catastrophe in a Global North country can experiment a collective trauma and can adopt different strategies in the short, medium and long-term depending on their previous vulnerability and on their migratory project, not unlike people displaced by disasters in the Global South. The evidence gathered in Sarno and Cerzeto shows how significant it is to contextualise the research and how necessary to refer to accurate data in order to identify and build specific resilience to future catastrophes and to mitigate the impact of the current environmental degradation, also in Global North contexts.

##### ***From statistics to moral panic***

*“It took scientists centuries to figure out how the use of quantities could facilitate the development of science. Nowadays, advertisers, politicians and scholars always use quantities to convince the public that their claims really rest on something. Yet, it would be doubtful whether the numbers they use are solid enough to be that ‘something’. The answer lies on the process that turns concepts into quantities – quantification”* (Ma, 2011: 97).

For example, the Inter Press Service News Agency, in 2009 titled an article “75 Million Environmental Refugees to Plague Asia-Pacific: Climate change could produce eight million refugees in the Pacific Islands, along with 75 million refugees in the Asia Pacific region in the next 40 years”<sup>140</sup>. The French “Le Monde” (28/09/2013), just after the

---

<sup>140</sup> Available at: <http://www.ipsnews.net/2009/08/climate-change-75-million-environmental-refugees-to-plague-asia-pacific/>, last access February 2014.

publication of the “Synthesis for policymakers of the last IPCC report presented a special issue about the “climate refugees” (following **Figure 42**).

**Figure 42: The French daily “Le Monde” provides estimations about the number of environmental induced displaced**



*Source: Le Monde week-end (28/09/2013: 5).*

It presents 32.4 million of people already displaced in 2012 because of extreme events considering that the most affected countries are the poorest ones (in Asia and Africa). Moreover, it analyses how sea level rise will be the cause of other displacements. The presented data come from the IOM database<sup>141</sup> that considers the global number of migrants, resettled or displaced but they are associated with an autonomous estimation about the possible impact on human community of the sea-level rise.

The vagueness about the concepts that explain the object of study, namely the environmentally induced displaced, and the lack of official definitions and of a common understanding of drivers and affected areas, create a strong debate on the statistics and scenarios provided in this domain, as well as the methodologies used to obtain them, not only within the public opinion but also in the academia. This vagueness constitutes a

<sup>141</sup> IOM website, <http://www.internal-displacement.org/assets/publications/2013/2012-global-estimates-corporate-en.pdf>

problem not only in the recognition/misrecognition of the phenomenon of environmentally induced displacement, but also in the fact that everyone can associate these conceptualisations with undetermined numbers, and use it in a misleading way.

Furthermore, the vagueness, added to statistical biases (e.g. the available data is insufficient or only cover specific geographical areas or certain environmental drivers) compromises the possibility to use reliable and comparable datasets to produce scientifically sound analyses over different time and space-scales. The problems in recognizing the phenomenon cast doubts on the essence of the phenomenon itself because of “*a rather complicated exercise because of the diversity of factors that come into play and their complex interactions*” (Renaud et al., 2007: 16).

The issue is further complicated by the implications on legal protection regimes and the applicability of the use of these categories. Renaud et al. (*ibidem*) point out that “*generalisations in estimating the number of environmental migrants/refugees on a global scale are fraught with difficulties.*” Any time a statistic is published in this domain, it is necessary to understand by whom or by which institution it is provided and if it is based on empirical data.

While evidence shows a growing number of occurrences of environmental related displacement caused by more intense environmental degradation (Kolmannskog and Trebbi, 2010), more frequent natural resources-related conflicts<sup>142</sup>, more widespread social and natural vulnerability, any future projection of numbers concerning the issue of “environmentally induced displacement” is extremely difficult to make, as shown by Flintan (2001: 4): “*not least due to the fact that without a firm definition of who is an environmental refugee it is not easy to say that this category of people is increasing*”. Producing gloomy statistics about the global scale of environmental forced migrants, can be misleading, because the projections are based on little evidence and only rarely and always partially take into account the role of adaptation and resettlement of the considered communities.

Therefore, the more pressing questions are: how many environmentally induced displaced can be counted and in which proportion are they internally displaced? How many have crossed international borders? When will they move? And where will they

---

<sup>142</sup> Environmental pressure leads to land competition, impoverishment, encroachment on ecologically fragile areas and impoverishment in Castles (2002).

go? The impossibility of accurate estimates and predictions has been pointed out by Döös (1997). He considers the fact that a large number of factors contributing to the possibility of environmental migration have very low or no predictability.

This is why the great majority of previous studies concerning the magnitude of the phenomenon are based on post-disaster recovery enumerations. *“Rather, the linkage appears simply as ‘common sense’ – if water levels rise, or forests disappear, it seems obvious that people will have to move”* (Castels, 2002: 4) even if the additional layers of complexity involved in determining the capacity of societies or communities to adapt to climate change is further complicated by the subjective considerations involved in the decision to migrate. Indeed, the issue of environmentally induced displacement *“promises to rank as one of the foremost human crises of our times”* (Myers, 1997: 175).

Thus, it is important to consider the evolution of the numerical prediction about the people likely to be involved in environmentally induced displacement when describing the growing attention over the phenomenon. In fact, these previsions seem to be integral part of the debate around the phenomenon of environmentally induced displacement and create and shape the public opinion and it seems essential in the analysis of the growing attention over the phenomenon.

### ***The first predictions about displacements***

Jacobson, a World Watch Institute scholar, claimed that in 1988 there were almost 10 million of environmental refugees, at that time *“the single largest class of displaced persons in the world”* (Jacobson, 1998: 6), adding that *“for every environmental refugee there are thousand whose lives are compromised every day because of unhealthy or hazardous conditions”*. Some years later, the Almería Statement<sup>143</sup> claimed that by 2050 135 million people could be at risk of displacement because of severe desertification (Almería Statement, 1994).

---

<sup>143</sup> The first International Symposium on Desertification and Migration was held in Roquetas de Mar (Almería) in 1994, bringing together a group of experts to revise the current state of knowledge and to foster the debate over migration processes and to draw the attention of both the scientific community and the decision-makers to the strategic and global nature of the relations between environmental degradation, desertification and demographic displacements ([http://www.sidym2006.com/eng/eng\\_presentacion.asp](http://www.sidym2006.com/eng/eng_presentacion.asp)).



According to Myers' first estimates, the total number of environmental refugees was 25 million in 1995 amounts to one person in 225 worldwide (Myers, 1997: 167-168): *"Their numbers seem likely to grow still more rapidly if predictions of global warming are borne out, whereupon sea-level rise and flooding of many coastal communities, plus agricultural dislocations through droughts and disruption of monsoon and other rainfall systems, could eventually cause as many as 200 million people to be put at risk of displacement"*.

### ***The second generation of predictions***

The 2001 World Disaster Report (Red Cross and Red Crescent Society, 2001) estimated a number of 25 millions of environmental refugees by 2010. In the same year, Myers reviewed his previous facts and figures in a lecture in occasion of the Blue Planet Prize by the Asahi Glass Foundation in Tokyo (2001b): a total of 204 million of people at risk of displacement (in Friend of Earth, 2007), divided as follows: 28 million in Bangladesh, 15 million in Egypt, 77 million in China, 23 million in India, 1 million in island states, almost 60 million in drought-prone areas, plus an unclear group of 30 million people at risk "elsewhere".

In 2002, UNHCR estimated that approximately 24 million people around the world were displaced because of floods, famines and other environmental factors (UNHCR, 2002). In 2003, IPCC recognised that 150 million environmental refugees would exist by 2050. Myers' estimates were also taken as a reference in a UNEP study in 2005, which claimed that by 2010, 50 million people would be displaced because of environmental factors.

### ***The last predictions***

Nicholls, from the Flood Hazard Research Centre, suggested in 2004 that *"between 50 and 200 million people could be displaced by climate change by 2080"* (Nicholls, 2001: 69-86). The attention to the climate change issue has become central to analyse the figures proposed by scholars since the mid-2000s. Brown, in 2004, pointed out that, *"some 400 to 600 Mexicans leave rural areas every day, abandoning plots of land too*

*small or too eroded to make a living. They either head for Mexican cities or try to cross illegally into the United States. Many perish in the punishing heat of the Arizona desert. Another flow of environmental refugees comes from Haiti, a widely recognised ecological disaster.”* He added that in China, where the Gobi Desert is growing by 10,400 square kilometres a year, the refugee stream is swelling. *“Asian Development Bank preliminary assessment of desertification in Gansu province has identified 4,000 villages that face abandonment”* (Brown, 2004).

Stern (2007) foresaw an additional 200 million “climate change migrants” by 2050, whereby Christian Aid estimated that 1 billion people would be forcibly displaced by 2050, principally due to climate change-induced natural disasters *“twice as many people could be displaced by conflict and natural disasters, but 250 million could be permanently displaced by climate change-related phenomena such as droughts, floods and hurricanes, and 645 million by dams and other development projects, based on a current rate of 15 million people a year”* (Christian Aid, 2007: 5).

The Environmental Justice Foundation, in 2008, estimated that in Africa 10 million people have migrated or have been displaced over the last two decades, mainly because of environmental degradation and desertification. In 2009, the United Nations Office for the Coordination of Humanitarian Affairs and the Internal Displacement Monitoring Centre of the Refugee Council (2009: 15) indicated, *“millions are already being displaced by climate-related natural disasters each year”*. Finally, Legambiente (2011: 4), the only Italian NGO really concerned by the topic of environmentally induced displacement stated that worldwide *“each year an average of 6 million of man and woman will be obligated to flee their settlements (a number that means the double of the inhabitants of Rome!)”*.

### ***An impressive escalation***

Such an escalation in numbers, summarized in the following **Table 23**, page 295, could be considered as a tangible manifestation of pressing environmental degradation and increasing frequency of disasters (UNISDR website, 2014<sup>144</sup>).

---

<sup>144</sup> Available at: <http://www.unisdr.org/we/inform/disaster-statistics>, last access March 2014.

At a closer look, though, these quantifications seem artificially inflated and scarcely supported by empirical studies, and fail to consider that migration is one of many potential responses to those increasing pressures.

All these predictions are based more on speculation than on scientific evidence: *“in a world saturated with numbers, it is easy to take the work of quantification for granted. Rigorous, defensible and enduring systems of quantification require expertise, discipline, coordination and many kinds of resources, including time, money, and political muscle”* (Espeland and Stevens, 2008: 411).

The scenarios of huge flows of environmental refugees, climate refugees, environmental displaced persons, developed by environmental analysts and international organisation reports, always propose an apocalyptic date for the fulfilment of the prediction. The most used reference years have been 2010, 2050 and 2080. From the first prediction (1995), the fatal date has been postponed constantly.

If at present it seems impossible to predict what is going to change in 2050 or in 2080, it is crucial to understand what happened in 2010 (in green in the **Table 23**, page 295): despite the huge figures, in fact, no “environmentally induced displaced” or “environmental refugee” or “environmental migrant” have been recognised, also because the biggest part of them return back at home in the first year after the catastrophe (Internal Displacement Monitoring Centre of the Refugee Council (2009)).

Emblematic can be the example of the 2005 UNEP map *“Fifty million climate refugees by 2010”* (**Map 9**, page 297) the source of which was a 2005 paper by Myers.

The map, widely used in academic publications, as well as for vulgarisation purposes, disappeared from the programme’s site in 2011<sup>145</sup>. In its place, a note: *“Environmentally Induced Migration Map – Clarification: This graphic was originally produced for the Environmental Atlas of the newspaper Le Monde Diplomatique. We have decided to withdraw the product and accompanying text. It follows some media reports suggesting the findings presented were those of UNEP and the UN, which they are not. We hope this clarifies the situation.”* Despite what indicated by the previsions, the expected population flows in the aftermath of catastrophes either did not happen at all or, never translated into long-term mass movements of populations.

---

<sup>145</sup> GRID-Arendal offers maps for everybody to download on the topic of Environmentally Induced Migration at this web address: <http://www.grida.no/general/4700.aspx>, last access March 2014.

**Table 23: Facts, estimations and predictions of environmentally induced displacements**

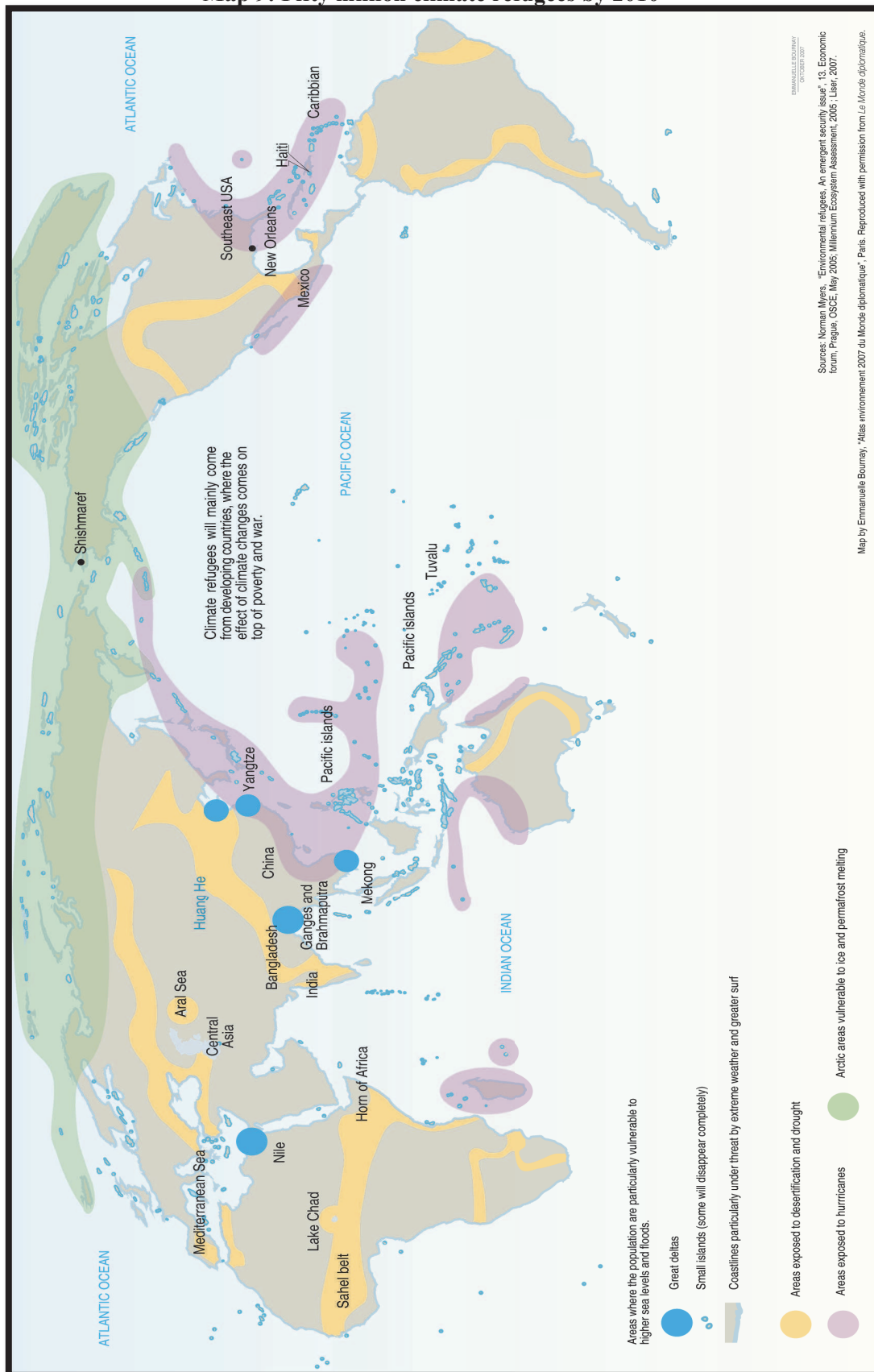
Time	Source	Year	Present Estimation	Prediction and Date
I Phase	<i>Worldwatch Institute</i>	1988	<b>10 million</b>	
	<i>Myers</i>	1995	<b>25 millions</b>	200 million (by 2010)
	<i>Almeria Statement</i>	1994		135 million (for desertification by 2050)
	<i>UNHCR</i>	1996-1997	<b>700.000 (ex URSS)</b>	
II Phase	<i>Red Cross and Red Crescent Society</i>	2001		25 million (by 2010)
	<i>Myers</i>	2001		204 million (by 2010)
	<i>UNHCR</i>	2002	<b>24 million</b>	
	<i>IPCC</i>	2003		150 million (by 2050)
	<i>UNEP</i>	2005		50 million (by 2010)
III Phase	<i>Nicholls</i>	2004		50-200 million (by 2080 because of climate change)
	<i>Brown</i>	2004	<b>400-600 (in Mexico every day)</b>	
	<i>The Stern Review</i>	2007		200 million ( by 2050 because of climate change)
	<i>Christian Aid</i>	2007	<b>15 million (each year)</b>	1 billion (by 2050 because of climate change)
	<i>UNOCHA and IDMC</i>	2009	<b>“millions”</b>	
	<i>Legambiente</i>	2011	<b>6 million each year</b>	

*Source: Personal elaboration from academic and NGO reports.*

One example for all is given by the **Map 9**, page 297, considering the islands States (such as Tuvalu, the Great Caribbean and, in general the Pacific Islands), indicated in the map as “very vulnerable” (from the legend: “*small islands will disappear completely*”): even if environmental degradation indeed jeopardises the life and well-being of the people living in these contexts, it did not so far produce any “environmental refugee”. These misleading predictions, produced or supported by International Organisations, determine the dissemination of erroneous information and contribute to generating false fears and biased political approaches.

While it is very important to raise public awareness on, and the political profile of, the issue of environmental displaced persons, generating myths and misnomer realities can be very dangerous. Creating confusion on the object of study will mislead on the importance of the phenomenon and cause problems in term of its recognition and the legal protection granted to those involved in environmentally induced displacement both in the Global North and in the Global South.

### Map 9: Fifty million climate refugees by 2010



Source: GRID-Arendal, UNEP (2005)



#### IV.2.c Few empirical studies in the Global North?

The study of the Italian context through the two examples of Sarno and Cerzeto evidenced how in this country there are not researches concerning the phenomenon of environmentally induced displacement. In order to analyse what happens in other Global North countries and to analyse the amount of available case studies for Global South countries and their coverage I decided to map all the case studies published by International Organisations, NGOs, academics and other research centres included in the bibliography compiled at the University of Neuchâtel, Switzerland with the support of IOM in 2012.

The analysis of the localisation of the case studies provides a state of the art of 259 case studies<sup>146</sup> about phenomenon of environmentally induced displacement and has been made trying to be as comprehensive as possible. It has not the presumption to be exhaustive, but only descriptive in the aim of future, more analytic researches.

##### *The evolution of the case studies concening environmentally induced displacements*

The oldest case study in this bibliography refers to a North Africa one, written by Swift, in 1973, *Disaster and a Sahelian nomad economy*: in the '70s droughts and famines were one of the most urgent issues in the political agenda; after a period of stability in the '90s (during which the main focus was on security issues in Asia and Africa) a crescent trend can be identified in the totality of the case studies since the early 2000s, because of the emergence of an autonomous field of study focusing on the phenomenon, and of the growth in importance of climate change in the political agenda.

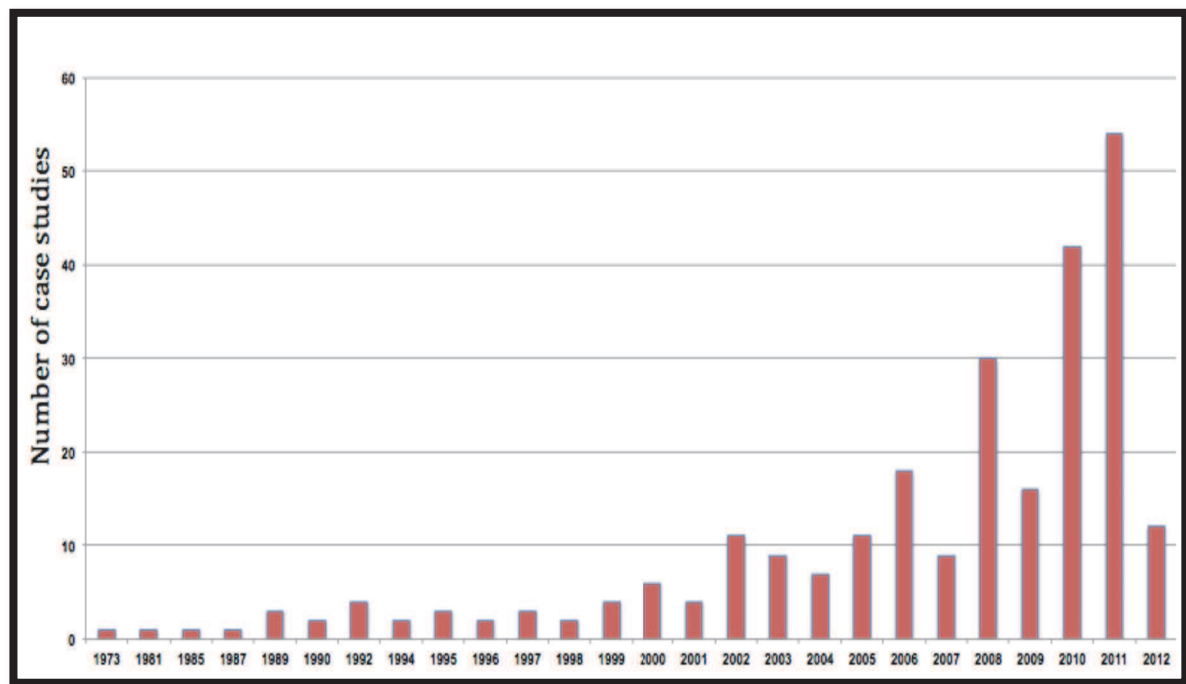
Different researches promoted by different organisms – as the UNU-EHS or the EACH FOR programs in 2008 and in 2011 (2012 is still incomplete) – and the growing importance of the issue in different research domains (both migration and environment studies) justify the highest number of cases in the last analysed period (**Graph 7**, page 299).

---

<sup>146</sup> The distribution of the case studies in **Annex IV** page 391.

The graphic shows a lack of attention over the phenomenon until 2002. The number peaks in the number of case studies coincide with spikes of global interest for the phenomenon in the aftermath of big catastrophes. Overall, research at the global level shows growing attention to the phenomenon.

**Graph 7: Number and timestamp of case-study publications concerning the environmentally induced displacements at global level (1998-2012)**

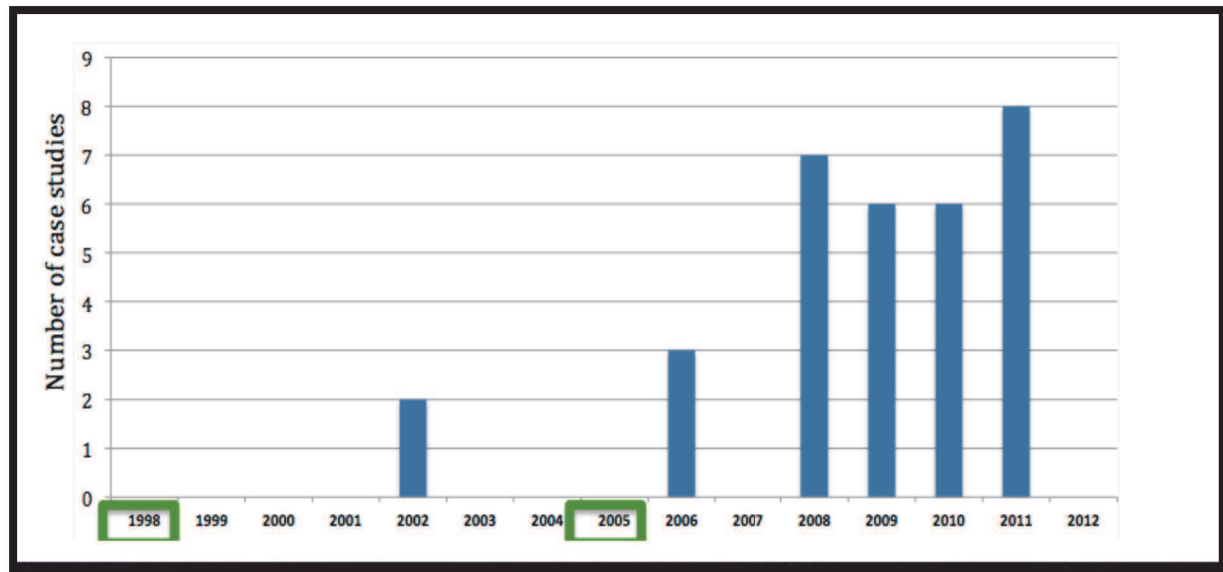


*Source: Personal elaboration from University of Neuchâtel and IOM (2012: 25-43).*

In accordance with this trend, Global North case studies concerning the phenomenon of environmentally induced displacement are quite recent, but their growth is slower and more progressive than the one showed by the analysis of the research worldwide (**Graph 8** – page 300).

The increase in scientific attention on this area of the world, demonstrated by the growing number of case studies, has been driven, in particular, until 2006, by the displacement impacts of Hurricane Katrina on the United States in 2005, as well as by growing concerns for the ice melting in Canada and in the United States (since 2002), as well as for the preservation of the Mediterranean basin, raised by IPCC in 2007. Nonetheless, it is important to notice that the two Italian examples analysed here do not figure in the chronology.

**Graph 8: Number and timestamp of case studies in environmentally induced displacement field concerning the Global North according (1998-2012)**



*Source: Personal elaboration from University of Neuchâtel and IOM (2012: 25-43).*

### ***Mapping case studies***

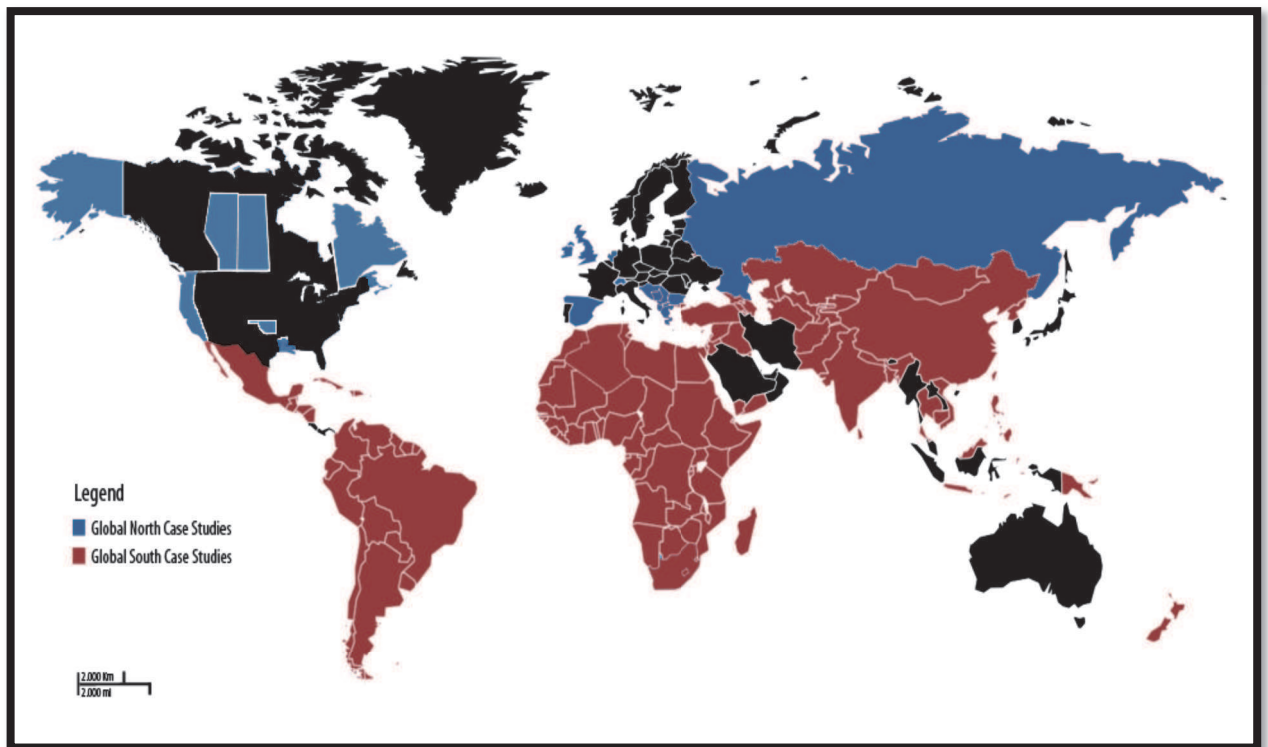
After having analysed all the case studies (259) listed in the bibliography according to their timestamp, I have decided to present them in a map (**Map 10** – page 301), in order to have a picture of the case studies distribution at the global scale. First of all, it is possible to consider that neither the case of Sarno nor the one of Cerzeto (occurred respectively in 1998 and 2005) nor any other Italian cases are represented in the literature. It could be inferred that the Italian catastrophes or the Italian displacements are probably analysed in other disciplines (geology, psychology, economy) and described using different terms, which might not be recognised in the bibliometrics approach used by the authors to create the bibliography (259 case studies). Secondly, the number of case studies in the Global South – represented in red – (227) is considerably more significant than the number of cases in the Global North – in blue – (32).

Furthermore, one can observe that the only Global North country with a significant number of case studies (18) is the USA, concentrated in the state of Louisiana, most affected by Hurricane Katrina in 2005 and in the state of Alaska, severely threatened by climate change. The impacts of climate change are also the reason behind the two cases

in Canada. Russia is mentioned once, in particular because of the importance of the Volga river basin.

Finally it is significant to notice how the Netherlands (1), Switzerland – because of the ice-melting in the Alps (2) –, Spain (1) and the UK (1) are the only European countries represented in the map, despite the high number of other catastrophes producing mobility which have taken place in the rest of the continent (e.g. the Xynthia windstorm in France or the L'Aquila earthquake in Italy). Other Global North case studies cover the Mediterranean basin (5 times) and the Balkans (1): the area has been individuated as a hotspot for the impacts of climate change by IPCC in both its 2007 and 2013 reports.

**Map 10: The global distribution of case studies (2012)**



*Source: Personal elaboration, from <http://www.freeworldmaps.net/powerpoint/index.html>, last access March 2014.*

The lack of other case studies in the Global North could depend mainly on the fact that, in this specific context, even if a disaster or the consequent mobility are analysed by different disciplines and from different points of view, the phenomenon of

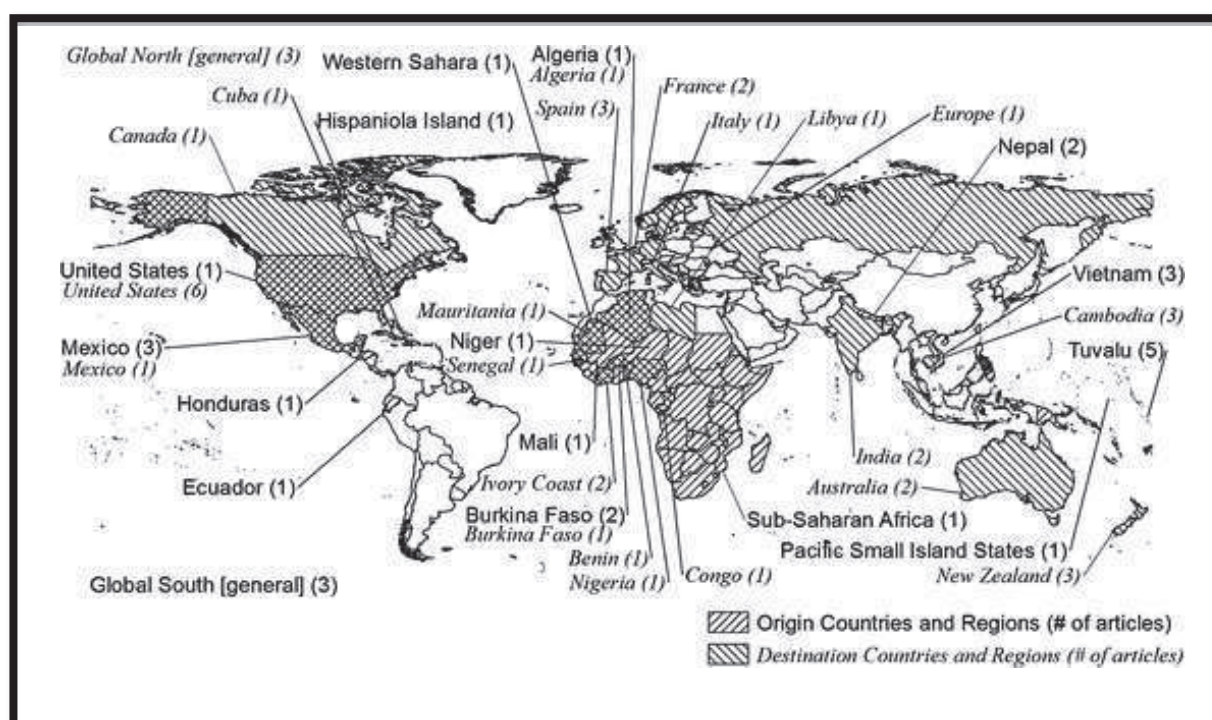
environmentally induced displacement is rarely recognised as a specificity or presented as a crucial issue.

86 cases are provided for Africa, with an equal distribution within the entire continent. 69 focus on the Americas, among which 13 on Mexico alone: the proximity to the USA could explain the interest on the environmental degradation and mobility nexus in this country. 86 cases analyse Asian and Pacific countries with a specific attention on Bangladesh (for which are provided 13 cases) and the Fiji, Tuvalu and Kiribati, which are mentioned 26 times in all.

The impact of climate change and environmental degradation on intensity and frequency of rainfall in the region lies behind a great number of the cases in the South-Eastern Asia. In the same sense, the narrative on sea-level rise as a consequence of climate change could be the explanation for the high number of case studies from the Pacific Islands. 7 cases focus on the Mediterranean basin and European countries. Only 6 analyse the Balkans and the Middle East, probably because in this area other political problems have been or still are considered a priority in the social science researches.

On the same lines, see also the recent work of Obokata et al. (2014). The authors analysed 31 empirical articles: according to the research (whose results are presented in **Map 11**, page 303), Africa is the most studied region with seven articles, followed by Pacific Islands countries and Central America and the Caribbean (six articles each), Asia (five articles), and South America (two articles). Five articles report information on both a migrant source country and a destination country. This literature focuses on Global North Countries only as destination areas (EU countries, USA, Canada, Australia and Russia), except for a single article, focusing on internal mobility in the USA.

**Map 11: Origin and destination countries and regions examined (2014)**



*Source: Obokata, Veronis and McLeman (2014: 8).*

The geographical distribution of the case studies seems to suffer a political bias. The complete underestimation of environmentally induced mobility in the Global North can be considered as a political strategy to minimise the environmental degradation and mobility nexus and stigmatise the phenomenon, confining it only in a specific geographical context, and to operate top-down politics in the Global North and in the Global South.

### ***A one-sided coin approach to the phenomenon?***

On the basis of this analysis, it is possible to affirm that the research on the link between environmental degradation and human displacement is mostly based on predictions and on a partial analysis of cases, with fragmentary coverage and is concentrated in specific geographic areas. A complete misrecognition of the phenomenon in the Global North can be observed, while the greatest number of case studies considers contexts in the Global South. This observation can be a first step in the recognition of the



fact that often the academic research is not driven by purely scientific reasons, but by the popularity or the visibility of a given phenomenon.

Moreover, despite the bleak scenario drawn by the media and the “grey literature,” there is no consistent statistical evidence on the effects of environmental degradation on human communities, households and individuals in terms of mobility, and there is still no common agreement even on the definition of the phenomenon. The vagueness on which the mainstream approach to the phenomenon is based casts doubts on the nature of the phenomenon itself and on the political motivations that stand behind its minimisation operated in the Global North.

\*\*\*

In the latest decades, environmentally induced displacement has become an important issue in the research but also for the media, NGOs and in the political discourse.

Firstly, the definitions used to describe the phenomenon (environmentally induced displaced persons; environmentally induced migrations; environmental refugees; climate induced migrations; climate refugees), are different according to the institution that coordinates the project or the analysis, its country of origin, the year of publication of the analysis, the political involvement of the promoting institution, its importance in decision-making processes, as well as to the public to which the study is addressed.

The analysis of the different labels used to describe the phenomenon allows, among other things, to highlight that not unlike others forms of migration, the environmentally induced one is always seen as a “problem” to manage for Global North Countries, facing population inflows from the Global South. This spatial bias generates a stigmatisation and a marginalisation of the phenomenon, which is confined in peripheral regions of the World, through different categories of terminology and meaning, different discourses, different predictions about the entity of environmentally induced displacement. Hence, there is no unique vision on the subject, and what is often considered a typical occurrence in the Global South is completely denied in the Global North.

Secondly, it is possible to recognise an exaggeration of the number of people concerned, as well as to identify different labels and different definitions gradually

developed and mixed to describe the phenomenon. All these scientific, political, humanitarian and strategic considerations seem to be based on a generalized lack of data, which creates misleading conceptions on the subject. While the numerical predictions about the effects of environmental stressors on human migrations and displacements are more and more alarming (among the others Myers, 1993 and 2005), there is not a strong empirical evidence supported by case-studies on these projections, which are nonetheless routinely used by governments, non-governmental organizations, academic institutions or international organizations.

Thirdly, I have pointed out how the case studies concerning the phenomenon are often focused on specific contexts in the World, generally the Global South, despite the fact that the institutions publishing these studies (non-governmental organizations, academic institutions or international organizations) are generally based in the Global North. Academic and political attention on cases of environmentally induced displacement, in fact, does not have a long history and, while some empirical research efforts have been done, they tend to focus on precise geographical areas (principally Sub-Saharan and Southern Pacific areas) and on specific catastrophes (principally soil degradation, desertification and the effects of climate change).

Can we recognise a political design behind these different definitions?

### **IV.3 The misrecognition: a political design?**

#### **Introduction**

From the evidence of the Italian case, through the findings of the empirical examples of Sarno and Cerzeto and from the other case studies provided in the thesis in different geographical contexts, it has been possible to understand how environmentally induced displacement is differently conceptualized and dealt with different issues in the various geographical contexts. The media, the political debate and the people concerned in such form of mobility, in fact, tend to minimise the phenomenon.

These differences in terms of definitions, drivers, numerical predictions and consequences on the short, medium and long-term, give the opportunity to have a deeper reflection on the phenomenon considering all the political, economic, social and cultural dimensions of the issue of environmentally induced displacement and to understand the reasons behind its recognition or misrecognition. The aim of this chapter is overall to understand if the different conceptualisations referring to a same phenomenon are just “lexical” or if they can be ascribed to a specific geo-political choice.

In order to analyse the recognition/misrecognition in the context of the perceptions of the environmentally induced displacement phenomenon, it is necessary to consider that *“although debates about the politics of recognition have yielded significant theoretical insights into the nature of recognition, its logical and necessary counterpart, misrecognition, has been relatively neglected”* (Thompson and Yar, 2011: 1).

A study of the misrecognition of the phenomenon of environmentally induced displacement in the Global North contexts is required in order to have a deeper insight on the motivations that justify the lack of recognition and the consequences of this denial process in cultural, political and social terms. In fact, far to be neutral, as already highlighted by Hegel in his *Phenomenology of the Spirit* (1807), the recognition or the misrecognition of a category reveals the opposition between two different actors, with two distinct identities: the one who defines, the other who is defined in the category.

This dialectical and simplistic conceptualisation, adopted by the Global North to describe this specific issue and the people it affects, completely denies nuances, dynamics and temporal and spatial trajectories of this complex social phenomenon and

confines it to a marginal and peripheral geographical areas (Amin, 1974). This approach does not consider that the more emphatically the existence of world risk society is denied, the more easily it can become a reality: *“the ignorance of the globalisation of risk increases the globalisation of risk”* (Beck, 2006: 330).

This is because in the analysis of the phenomenon of environmentally induced displacement macroscopic issues, in term of unequal distribution of wealth and power Resources (Sassen, 1991) and centre-periphery dynamics cross with environmental hazards and natural disasters, but also with personal expectations and ambitions, which cross borders and geo-political divisions (Amin, 2011).

### ***An un-objective rhetoric?***

One emblematic illustration of the opposition in terms of the political ways in which this phenomenon is handled and used can be found in the “EU told to prepare for flood of climate change migrants” Guardian article in March 2008. Another example is provided by Wood, the official Geographer of the US Department of State, stated: *“Anti-immigrant rhetoric and apocalyptic forecasts of environmental disaster [...] may also be obfuscating a rational policy discussion. Indeed, focussing attention primarily on such a long-term and worldwide phenomenon could mask the more immediate reality of many dispersed, and localised ecological crises and the fact that there is usually no simple relationship between environmental causes and societal effects”* (Castles, 2002: 4).

This quote reveals the un-neutrality of the recognition/misrecognition of the social phenomena linked to the effects of environmental degradation and highlights the existence of a mainstream paradigm of interpretation.

From this first intuition, it is possible to reconsider the issue of environmentally induced displacement in a more critical way: does the phenomenon escape this mainstream paradigm? Does it follow the fear of Global North countries to be the destination areas for Global South displaced? In order to investigate this research approach, after having presented the patterns of the minimisation in the Global North from a geographical point of view, I now try to conceptualise the political reasons of this approach: in a first section I analyse what is the theoretical framework of the underestimation and minimisation in the Global North.

In a second section, I try to individuate the geo-political motivation(s) of this misrecognition. This analysis is based principally on the book of Beck (1986), which aims to reconceptualise the ideas of responsibility and prevention, but also of fear and risk; an article of Schade (2012), in which she retraces the challenges of the concepts of the issue of environmentally induced displacement; and a text of Gemenne (2009), which presents this issue through a geopolitical approach. What are the political motivations of this misrecognition?

### **IV.3.a From determinism to risk society?**

The very fluid definitions and conceptualisations of causes, consequences and possible impacts of environmentally induced displacement create a lack of self-recognition for the agents who are involved in this kind of mobility, as well as a stigmatisation of labels and status for the communities that experiment it. The phenomenon seems to be minimised when it occurs in Global North contexts, in addition to the fact that all the predictions and the biggest part of the research concern Global South contexts.

The idea that the environmentally induced displacement considered as a primitive form of mobility, to the fear of Global North countries I now explain the theoretical and “cultural” justification about the misrecognition of the phenomenon in the Global North.

#### ***A “primitive” form of mobility?***

In order to understand why there is misrecognition of the environmentally induced displacement issue in the Global North, it is firstly possible to investigate the historical dimension of the concept. Firstly mentioned in the works of Churchill Semple (1911), the environmental, climate or ecological drivers have been a *leitmotif* in the migration theories for the first half of the 1900. Vogt, for example, in 1948, talked about “ecological refuge” to describe the recovery place for people escaping from disasters. Therefore, the environmentally induced displacement phenomenon, largely regarded as a

primitive form of mobility, seems to be rejected from the Global North in the typology made by Peterson (1958) starting from the second half of the 20<sup>th</sup> century.

The first reason for this is that deterministic theories have been abandoned in the second half of the 1900, because this approach was considered scientifically out-dated, as Ambrosini points out (2005). The second is caused by the emergence of the economic paradigm in the field of migration research (see the work of Borjas, 1989). The third, that the research on mobility and migration has progressively denied the “natural” factors, considering it as a “primitive” element characterizing specific communities. This idea fits perfectly within the “modern” conceptualisation of progress and with the complete alienation of the human action from the environment and nature (see on this the works of Latour, 1999 and 2011).

Only the less complex societies are considered vulnerable, while the more complex and democratic ones seemed to be “un-vulnerable” to environmental factors<sup>147</sup> (Bankoff, 2001). Moreover, the emergence of the “refugee studies” associated to the political context of the Cold War (among others Chandler, 1959), lead to a shift in the consideration of forced mobility, increasingly regarded as the consequence of state actions, completely denying nature as a possible factor of coercion in the case of catastrophes and environmental degradation.

Only from the ‘80s the nexus between environmental processes and events and mobility has been “rediscovered”, mainly because of the emergence of issues linked to global changes in climate, resource availability, integrity of ecosystems and delivery of their services, and because of the increase in risk related to technological hazards or severe pollutions. Far to be neutral, the research and the representation of environmentally induced displacement by the media, authorities and affected people seems to suffer a deeper geographical bias and to reflect a mainstream Global North-based point of view, which minimises the phenomenon internally.

### *A “natural” destination?*

In Global North countries, in fact, media, NGOs and governments present a discourse of misleading definitions of and exaggerated predictions on the real entity and quantity of

---

<sup>147</sup> Even if the catastrophes of Fukushima, New Orleans or L’Aquila show how industrialised societies (precisely because of their complexity) can be equally jeopardised.



concerned people, based on fragmentary understanding of what areas are or will be affected by this phenomenon, in terms of origin and destination of the population flows.

The **Map 12**, page 311, published by the German Advisory Council on Global Change, can be a very useful tool to understand what are the main security concerns for Global North countries, which consider themselves as the “natural” destination of environmentally induced displacement flux from third countries, even if all evidence suggests that environmental mobility rarely assumes the form of trans-border migration (Williams, 2008) if not associated to previous projects.

The map shows how the biggest concentrations of environmental displaced are supposed to come from the Central America and through the South-Mediterranean border, such as South-Eastern Asia and the Sub-Saharan region: even if the mentioned areas seem indeed to be very vulnerable (because of the presence of political, social and environmental vulnerability), other areas have been affected by environmental degradation and resource depletion. By contrast, no attention is given to the possible impacts of environmental degradation, climate change or disasters in the Global North countries.

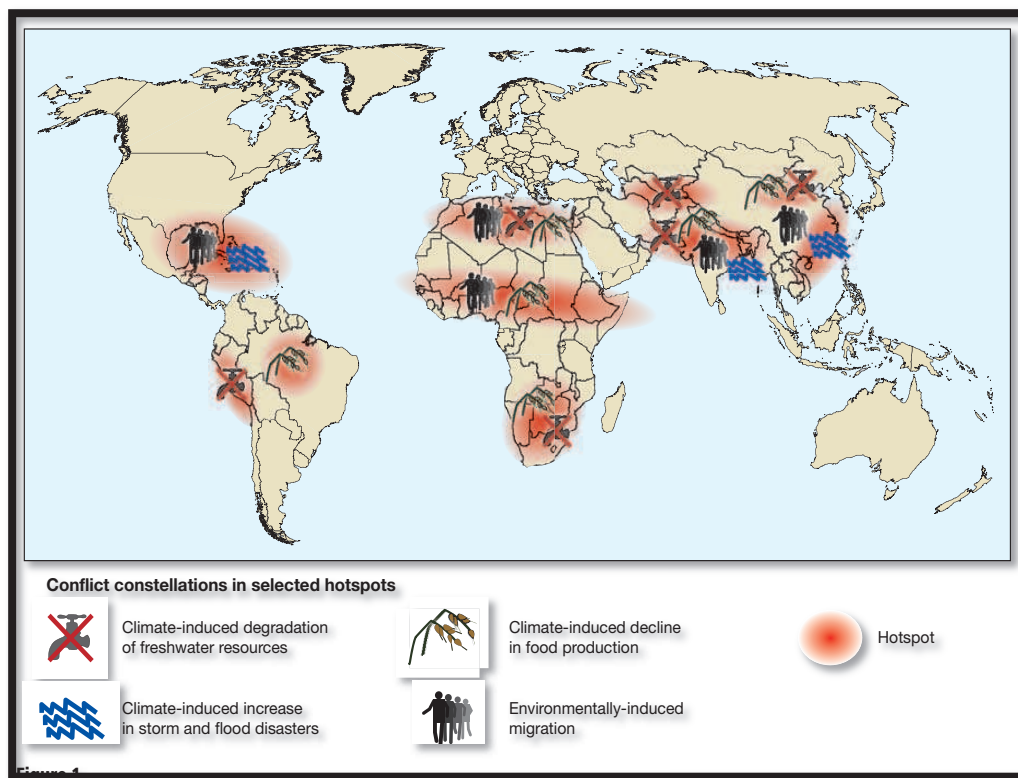
This **Map 12** can also be a useful tool to individuate the different issues linked to the phenomenon in terms of resource scarcity, conflicts for resource appropriation and use, human security, and food and water availability,<sup>148</sup> as well as current concerns on the destination of the flows of environmentally induced displaced<sup>149</sup>, that naturally seem to be the “Global North”.

---

<sup>148</sup> The growing pressure on natural resources, resulting from economic exploitation and the effects of human activities are altering issues when mixed with other causes, in political and social contexts already vulnerable that lack in property rights and land-laws, in population participation in process decision and in resources management, in commitment to resources and poverty, in adequate and suitably targeted investment, in sufficient human capacity, in effective institutions, and in governance to support coping mechanisms and adaptive capacity especially for poor people: in this sense, in 1991, Starr published an article titled “*Water Wars*”, in which he warned that water shortages threatened conflict in North Africa and in Middle East countries.

<sup>149</sup> Homer-Dixon presents a compelling case overviews of nine physical trends of global change: “*human population growth, rising energy consumption, global warming, ozone depletion, cropland scarcity, freshwater depletion, decline of fish stocks, and biodiversity loss; each of these could be expanded into a treatise in its own right*” (1999: 133).

**Map 12: Security risks associated with climate change**



*Source: German Advisory Council on Global Change (2008:4).*

In order to analyse the environmentally induced displacement and security nexus, I use the categories of Findlay (2011) who considers that there are at present two contrasting approaches to analysing environmentally induced displacement drivers and destinations.

***From the first approach about environmentally induced displacement destinations***

The first approach maps environmental migration from the areas that, presumably, are the most affected by environmental degradation and climate change, calculating the population living there and then assuming that all or a proportion of the population living in there will be forced to migrate, in a very simplistic and mono-casual vision (among the others Myers, 1994). Researchers, NGOs, media and International Organisation individuate the areas most affected by environmental stresses and catastrophes as the Global South.

On the contrary, environmental migration is not solely based on a simple matter of cause and effect wherein migration is always triggered by climatic conditions and environmental events and processes alone. It is in fact much more complex than that and the estimates that immediately link the consequences of environmental degradation and migration cannot be clearly demonstrated, being based on unsupported assumptions and mostly guesstimated. The consideration that only specific countries will be more undamaged by environmental degradation than others, can be linked with a Global North based theoretical approach.

Starting in the XIX century (e.g. Marx, 1867), this approach considers the “nature” and the “society” as an opposition with a double objective: to dominate and control nature and to ignore it, in a sort of alienation created by progress and technology (Beck, 1986). Again, we can find the refrain of the primitive mobility, which considers that only the “under-developed” areas have to deal with the natural environment. This idea reflects not only a hierarchy between countries, but it is also a justification for the “imposition” of economic growth and “modernisation” (Kotz, 2002), that seems to be the only way to cope with environmental hazards and, globally, to adapt to environmental change.

According to this approach also resource-scarcity and conflicts, generated by environmental degradation and resulting in or triggered by environmentally induced displacement are associated, in the literature, in the media and ultimately in the social imaginary, to specific contexts. The idea of scarcity is often associated to “famine,<sup>150</sup> “malaria,”<sup>151</sup> “epidemics,”<sup>152</sup> “ethnic strife:”<sup>153</sup> all concepts strictly related to a specific geographic area. In the Global North, a famine or the insurgence of a riot because of food

---

<sup>150</sup> During the Darfur crisis (Lavergne, 2010), water scarcity and resource shortages have been the sparkle to trigger a conflict during five years.

<sup>151</sup> Changes in temperature and in rainfall patterns may in fact change the geographic range of vector-borne diseases such as malaria and dengue fever, exposing new populations to these diseases; young children as well as pregnant women and their unborn children are especially vulnerable to malaria (Rodriguez et al., 2008).

<sup>152</sup> The impact of epidemics such as HIV/AIDS, points to a future where disasters could increasingly threaten the world’s economy, and its population and the sustainable development of developing countries (UNISDR, 2003).

<sup>153</sup> Lee (2001: 80) has pointed out how “*conflicts, environment and refugee flows interact*”: in this sense, not only the refugees are victims of political conflicts and persecution, but also the increasing number of refugees provokes ethnic strife within host countries and further creates and exacerbates conflicts between the sending and receiving countries.

insecurity or epidemic diseases appear extremely improbable, because of the institutional structure, the availability of resources and the infrastructural network<sup>154</sup>.

Nonetheless, it is very crucial to consider that the social exclusion due to a different exposition to environmental factors or to a different access to the resources is a crucial point also in the analysis of the ecological and social supply chain in Northern Countries: in the case of Cerzeto we have seen how an unfair distribution of economic opportunities and entitlements affected the illegal construction of the houses on Emigrates' Road; in the case of Sarno it is also more complicate: Rom and Sinti who lived in a slum in the city have been completely forgotten during the post-catastrophe recovery, which has lead to social conflicts within the community, as they were seen as "opportunists" by the local population.

The fact that some families received compensation while other ones are still waiting creates a huge fracture within the community, especially for the most vulnerable such as the children, the elderly and women. As social conflicts arising from ecological exclusion are present in each and every community in the world, it is important to study them also in Global North countries in order to give more reflexivity to the research in this field and avoid the oversimplification of the ecological and social process dynamics and confinement to specific geographical areas. The social exclusion due to environmental depletion seems to be, in fact, a global problem, that concerns the communities within Global North and Global South countries.

### *...To the second one*

The second approach developed more recently by researchers such as Kniveton et al., (2008) or Black et al. (2011) analyses the issue from the perspective of existing migration systems and mobility circulation and patterns, giving stronger consideration to individual capabilities and personal migratory projects of the agents (Théau and Venier, 2001). In other words, this second approach also seems to support

---

<sup>154</sup> This approach is based on the consideration deriving from the economics studies on the Environmental Kuznets Curve (Panayotou, 2003): this analytic tool underlines the link between wealth, opportunities and ecologic "culture" (positive correlation between income level and "environmental" national expenditure) and identifies some of the contradictions of economic growth and, broadly speaking, of globalisation.

the idea that an increased demographic pressure will weight on Global North countries, even if in different terms than the first one, based more on presumptions than on effective estimations.

First of all, in the majority of countries, migration flows are not completely recorded, if they are recorded at all: many countries do not have adequate data even for arrivals and departures (UNDESA, 2010), so estimates of net migration must be calculated as a residual for changes in population size between two successive enumerations of the population that are not accounted for by natural increase, namely the difference between births and deaths. Migration and mobility data from many National Statistical Offices include only the total number of immigrants and emigrants, thereby giving but a hint of the complex web of links a particular country may have with the rest of the world.

Monitoring and appraising international migration trends are thus hindered by lack of data; in addition, there are problems related to the quality, comparability and consistency of the data over time and space, and this difficult is more pertinent if one wants to isolate a single driver (such as for environmental causes).

### ***Eco-imperialism?***

If the first approach bases its analysis of the idea of the un-vulnerability of the Global North and its complete detachment from the natural environment, the second perspective considers that environmental mobility will walk among pre-existing migratory field and trajectories (traditionally considered from global South to North). Moving from different fields of analysis, the two approaches give the same conclusion: the more affected environmental-displaced departure countries will be situated in the Global South, and the preferred destinations will “naturally” be the Global North ones. In contrast, it becomes natural to cast doubts on both points of view: first of all because, being a global phenomenon, environmental degradation is unlikely to affect only poorer countries, while it is possible that catastrophes and long-term degradation phenomena will also hit the Global North.

Secondly because, environmentally induced displacement will occur not just from, but within the Global South.

When considering the traditional patterns of migration, in both scientific and public policy discourse it is often forgotten that the biggest rate of migration, occur internally or within the same geographical region. This South-to-South mobility, according to Hatton and Williamson (2002) *“is not new. It is just ignored by economists.”* This is because migration estimated to take place between countries with contiguous borders, mostly appears to occur between countries with relatively small differences in income.

Environmentally induced displacements, like all form of mobility, is a phenomenon that mostly occurs within close geographical areas: environmental migration will be cross-border only if mixed to other factors such as personal expectations, projects, political or economic pressures, networks and resources as showed for household and individuals in Nepal by Massey et al. (2007). For this reason, environmental displacements could take place within Global North countries and within Global South countries and could generate mobility also between Northern regions. This issue therefore needs to be understood in a more complete and holistic way, in order to be analysed taking into account the previous context in which the environmental catastrophe occurs.

Such a comprehensive approach would be more useful to identify and address the phenomenon in Global North countries, too. It is possible to recognise a biased approach that considers Global South countries less “able” to cope with risk and with environmental degradation.

Between other examples, emblematic can be the cover image of a brochure (Kent, 2009) presented by the NGO “ALOFA TUVALU” and the French “Agence de l’Environnement et de la Maîtrise de l’Énergie” to sensitise the environmentally induced displacement issue.

The following **Figure 43**, page 316, represents a white, highly-skilled boy, “helping” the young Tuvaluan girl whose land is going to disappear because of sea level rise: he has the technological tools (a mobile), while she seems completely dependent to his call.

The dichotomy between the wealthy Global North and the poor Global South needing help is, in this case, represented with all the possible clichés.



Figure 43: The saviour of Tuvalu



Source: Kent (2009: frontcover).

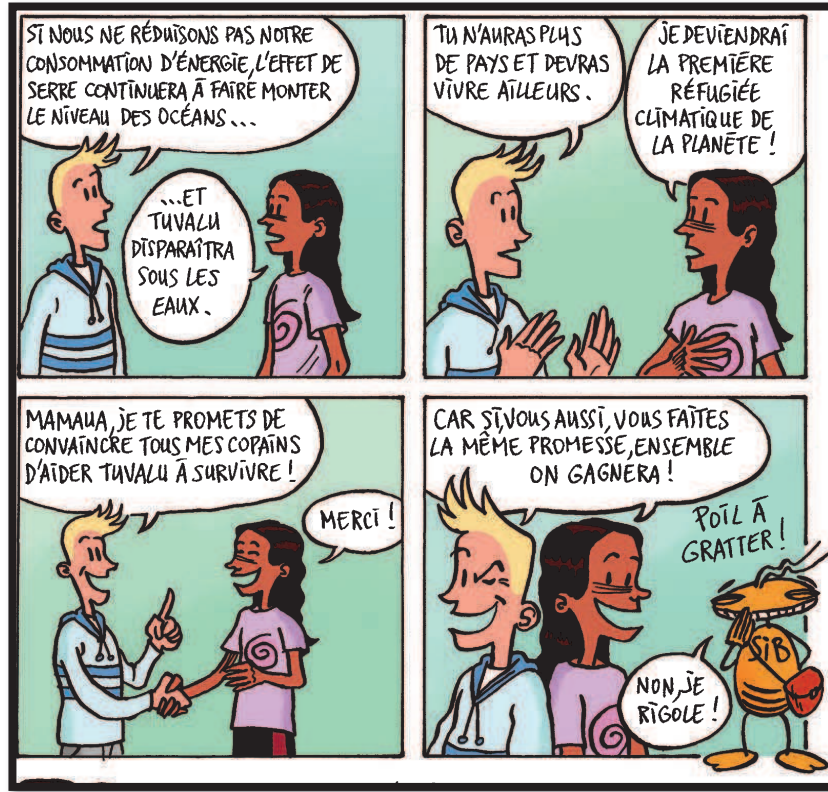
The brochure, clearly having a didactic aim, ends with an interesting strip (**Figure 44**, page 317, representing the dialogue between the two characters of the cover image:

- *"If we do not reduce our emission, the greenhouse effect will keep making the sea level rise"*
- *"...And Tuvalu will disappear"!*
- *"You will lose your country and you'll be forced to live abroad."*
- *"I'll be the first climate refugee!"*
- *"I promise you to talk with all my friends in order to help Tuvalu to survive;"*
- *"Thank you!"*
- *"If you do the same, we'll win!"*

It is really interesting to understand the patterns of the aid politics: only with the help of the Global North, the Global South will be able to cope with the environmental

degradation and the impacts of climate change, repeating a deterministic approach to the polar division between the Global North and the Global South (Hayter, 1971).

Figure 44: “Helping Tuvalu!”



Source: Kent (2009: 13).

This is a manifestation of Bricmont’s “humanitarian imperialism” (2006), which demonstrates how the human right framework and the other Global North concepts created by political leaders and the intellectual community have been abused to further an imperialistic agenda. *“Such notions as ‘humanitarian intervention’ and ‘the responsibility to protect’ soon came to be salient features of Western discourse on policy, commonly described as establishing a ‘new norm’ in international affairs”* (Chomsky, 2008: 2).

This prejudice reveals a presumed superiority of the Global North countries and underlines the dialectic of the recognition/misrecognition in the alterity: the Global North defines a phenomenon for the Global South and helps the Global South to face it. The Global North has the solution (represented by economic growth) in a sort of “eco-imperialism.”

*“To break the cycle of poverty and dependency that exists in the less developed world, much hope and attention has been placed on technological breakthroughs, for new technologies are supposed to bring improved standards of living for all, and at the very least bring hope for a better life for billions of individuals who have none. [...] This is in large part due to how the developed world has continually found ways to exploit each new technology to their advantage, turning potential growth into a stranglehold on the less developed countries” (Soomin and Shirley, 2009: 847).*

Another example that reveals the same attitude comes from the chronicle in the aftermath of the Sarno landslide in 1998. The former Minister of the Interior G. Napolitano (nowadays president of the Italian Republic), arrived in the city covered of mud, claimed *“I see settings that are unbecoming for a civil country”* (*“La Repubblica”* 7/05/1998). The article referring the visit of the Minister and using his same words, titles the article *“A disaster unbecoming for a civilized country”* (following **Figure 45**).

It is interesting to notice how the representative of the Italian State reiterated the prejudice concerning the separation between “civil” countries and “uncivilised/primitive” ones. Preferring the use of this allegory to explain the catastrophic consequences of the landslide he shift the public opinion’s attention of the national pride rather than to avoid the presence of environmentally induced displaced in Italy, maybe because considered as a prerogative of “uncivilised/primitive” countries.

**Figure 45: A “a civilised” country?**



Source: *“La Repubblica”*, (7/05/1998).

In this sense the first corollary of the hypothesis: *we can recognise a political design to hide the phenomenon of environmentally induced displacement in the Global North*, is positively verified, because, environmentally induced displacement is indeed considered as a prerogative of the Global South. This general attitude can be referred to the “disaster capitalism,” in which *“each new shock is midwife to a new course of economic shock therapy. The end result is the same kind of unapologetic partition between the included and the excluded, the protected and the damned”* (Klein, 2007: 47)

What are the political consequences of the misrecognition of the phenomenon in the Global North and of its specific recognition in the Global South?

### **IV.3.b Protection or fear?**

*“Peace, development and environmental protection are interdependent and indivisible”* (Principle 25, The Rio Declaration on Environment and Development, 1992). In 1992, the global community formally recognised that there is a strong connection between peace, human well-being and environmental protection. The links between peace and development have been highlighted ever since the 1980s by the works of Galtung et al., (1980), and more recently by the work of Rieff (2002) who, in his *“A bed for the night”*, – which name is taken from a poem by Bertolt Brecht –, criticises the “humanitarianism” of NGOs and International Organisations that stresses the needs of “innocent victims” to the exclusion of all other considerations.

These processes merged with the parallel efforts to include environmental considerations in development issues, started with the United Nations Conference on the Human Environment, held in Stockholm in 1972. This conference initiated a series of intergovernmental investigations and summits on development and environment, which culminated in the World Commission on Environment and Development’s 1987 report *Our Common Future*, which popularised the term “sustainable development”, introduced the term “environmental security<sup>155</sup>”, and laid the foundations for the United Nations Conference on Environment and Development in 1992. What does imply this growing attention on the impacts of the environmental degradation?

---

<sup>155</sup> The concept of “security” implies the possibility to be free of the fear: it involves both an individual and a social sphere and is circumscribed in a territorial and in a non-territorial dimension; even if its complexity has been constructed during the last century (UNDP, 2005).

In order to better understand the political motivations and implications of the different ways the environmentally induced displacement phenomenon is conceptualized, discussed and addressed, it is necessary to analyse how it is possible to link all the definitions, juridical protection and management tools related to the phenomenon to the idea of development and security, which are central concepts to the global political agenda. This approach can be framed also according to the different juridical tools proposed to “protect” environmentally induced displaced that are Global North-based and Global South-oriented.

This approach reveals all the features of the culture of fear (Wendt, 1999), which has a number of Western philosophical antecedents in the Hobbesian war – of the “war of all against all” (1651) –, the Lockean rivalry – of the “self-other contradiction” (1690) –, and the Kantian social security – with the aim of the “perpetual peace” (1795). We can recognise a sort of “dictatorship of the scarcity” as underlined by Beck (2006): to maintain its authority, the power creates new risks to promise more security fighting against the external menace, in this case represented by environmental degradation and its consequent mobility.

### ***Environmental degradation: menace or myth?***

In a report prepared for the US Department of Defence in October 2003, Shwartz and Randall, analyse the consequences of climate changes for the national security of the USA. They stress the possible threats that a lack of food and of drinkable water and the decline in agricultural production and in the accessibility of energetic resources worldwide could represent for the USA.

They argue, *“in that event the United States will need to take urgent action to prevent and mitigate some of the most significant impacts. Diplomatic action will be needed to minimise the likelihood of conflict in the most impacted areas, especially in the Caribbean and Asia. However, large population movements in this scenario are inevitable. Learning how to manage those populations, border tensions that arise and the resulting refugees will be critical. New forms of security agreements dealing specifically with energy, food and water will also be needed. In short, while the US itself will be relatively better off and with more adaptive capacity, it will find itself in a world where*



*Europe will be struggling internally, large number of refugees washing up on its shores and Asia in serious crisis over food and water. Disruption and conflict will be endemic features of life*” (Shwartz and Randall, 2003: 25, underlining added).

The quotation from this report shows, first of all, the importance of the environmental degradation and mobility nexus as a security issue; secondly, it is a clear example of an alarmist scenario for an external menace, in which only a strong actor (a sort of modern Leviathan, in this case the USA) would have the capacity to act, protect its citizens and solve the problems they are facing. The third crucial aspect is the idea that *“US itself will be relatively better off and with more adaptive capacity”*, showing an innate superiority and invulnerability compared to other contexts, such as the Caribbean and Asia.

Another example in the consideration of the environmentally induced issue treated as a security concern, it is possible to focus on European Union. As noticed by Popp (2014: 246), *“EU has almost exclusively treated environmental migration as a matter external to the EU region not an intrinsically European phenomenon.”*

EU’s foreign policy, in fact, introduced the environmentally induced displacement issue under the rubric of security in the 2008 through the Solana Report, namely the European Commission report to the European Council on climate change and international security<sup>156</sup>. Because of the potential instability and conflict, the report identifies mobility and migration as a future threats for Europe. In a more recent paper “Joint Reflection”<sup>157</sup>, the European External Action Service and the European Commission comes to more nuanced conclusion *“while climate change alone does not cause conflict, it is leading to increased competition for scarce resources, further weaken fragile governments and exacerbates migratory pressures.”*

### ***The presumed security implications***

As noted by Gemenne (2011), in 2007, with the assignation of the Nobel Prize to Al Gore and to the IPCC, the environmental degradation-mobility-global security issue

---

<sup>156</sup> EU, (2008). “Climate Change and International Security” Available at: [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/reports/99387.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/reports/99387.pdf).

<sup>157</sup> EU, (2011). “Towards a renewed and strengthened EU climate diplomacy” Available at: [http://eeas.europa.eu/environment/docs/2011\\_joint\\_paper\\_euclimate\\_diplomacy\\_en.pdf](http://eeas.europa.eu/environment/docs/2011_joint_paper_euclimate_diplomacy_en.pdf), last access April 2014.



was reaffirmed, which led to a series of political consequences at the global and national level. *“The Nobel Peace Prize 2007 was awarded jointly to Intergovernmental Panel on Climate Change (IPCC) and Albert Arnold (Al) Gore Jr. for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change”* (The Nobel Foundation, 2007)<sup>158</sup>.

On April 17, 2007, during the 5663<sup>rd</sup> meeting of Security Council in New York, the UN held the *“first-ever debate on impact of climate change on peace, security, hearing over 50 speakers.”* Through the pages of the report it is possible to retrace the anxieties and fears of the different countries in the face of environmental stresses, in particular for the changes in climate, seen as a threat for internal and international security. It is interesting to observe how behaviour in the face of the phenomena differed between the governments of Northern and Southern countries, insular and continental ones. The British Foreign Secretary, Beckett, said that climate change was a security issue, but it was not a matter of narrow national security - it was about *“our collective security in a fragile and increasingly interdependent world.”*

Calling for a “long-term global response” to deal with climate change, along with unified efforts involving the Security Council, Member States and other international bodies, Secretary-General Ban Ki-moon said that projected climate changes could not only have serious environmental, social and economic implications, but implications for peace and security, as well.

The Secretary-General outlined several *“alarming, though not alarmist”* scenarios, including limited or threatened access to energy increasing the risk of conflict, a scarcity of food and water transforming peaceful competition into violence, and floods and droughts sparking massive human migrations, polarising societies and weakening the ability of countries to resolve conflicts peacefully.

### ***The States’ preoccupation***

Always considering the bibliometrics analysis done by the University of Neuchâtel and IOM in 2012, it is possible to consider the evolution of the scientific works (44 in

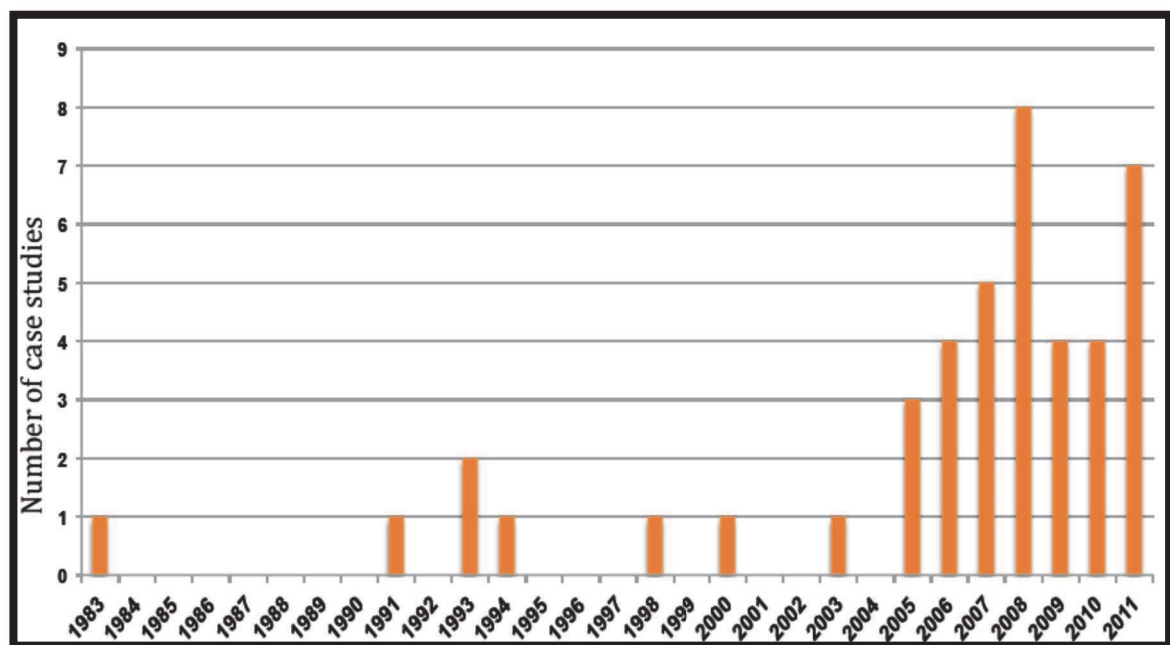
---

<sup>158</sup> Nobel Prize (2007). Available at:

[http://www.nobelprize.org/nobel\\_prizes/peace/laureates/2007/](http://www.nobelprize.org/nobel_prizes/peace/laureates/2007/), last access March 2014.

total) concerning environmental degradation and consequent mobility as a security issue (following **Graph 9**). From the temporal distribution of the studies referring to this issue one can notice that after a sporadic interest until the 2000s (principally represented by the works on resource scarcity and conflicts), after 2005 the number of publication on the phenomenon has grown rapidly. This new interest about the phenomenon can be related to the emergence of the need of justification for top-down politics.

**Graph 9: Number of publications concerning the security issue in the literature review provided by the University of Neuchâtel (1983-2011)**



Source: Personal elaboration from University of Neuchâtel and IOM (2012: 21-24).

It is interesting to notice the different approaches of the states during the 5663<sup>rd</sup> UN Security Council meeting, in 2007<sup>159</sup>, to understand the different behaviours and considerations about the environmental degradation, induced mobility and security nexus. B. Craxi, Under-Secretary of State for Foreign Affairs of Italy, said that the present debate would help provide “*food for thought on the right actions to take in the competent fora [...] those conflicts and mass exoduses would then contribute to an increase in poverty, which, in turn, would increase pockets of discontent and recruitment by rebels or terrorists.*” Carmon (from Israel) said, “*Energy played a critical role in all societies [...]. There was no doubt that the security of certain regions related directly to,*

<sup>159</sup> UN Security Council, (2007). Available at: <http://www.un.org/News/Press/docs/2007/sc9000.doc.htm>, last access March 2014.

*among other things, the availability of energy resources.” He stressed that it was not only the potential scarcity of oil and gas that could be a driver of conflict, but access to water, food and fertile soil. Lippwe (from the Federated States of Micronesia) underlined that, for his country, like other small island developing States, “Climate change had been a serious security problem for quite some time. From the viewpoint of an islander, living on island atolls merely a few metres above sea-level, global climate change was a security threat that must be confronted urgently by the Council.”*

Shahid, Minister of State for Foreign Affairs of the Maldives, recalled that, some 20 years before, his country’s President had said that for his country, a mean sea-level rise of 2 metres would suffice to virtually submerge the entire country of 1,190 small islands. *“That would be the death of a nation [...]. Today, over 60 per cent of its inhabited islands is facing varying degrees of coastal erosion, which is physically threatening the human settlements on them.”* Pita (from Tuvalu) said that, as with the issue of security threats of HIV/AIDS, it was strongly believed that the Security Council should permanently place on its agenda the issue of climate change and environmental security.

It is a topic of extreme importance to small atoll nations like Tuvalu, whose vulnerability to the impacts of climate change were highlighted in the Intergovernmental Panel’s recent report. Coral reefs and fish stocks were being affected. There was an increased threat from severe cyclones and water shortages. The possibility of rising sea levels had caused many people to consider migrating, threatening Tuvalu’s nationhood. Such a reality constituted an infringement on the people’s rights to nationality and statehood as constituted under the Universal Declaration of Human Rights and other international instruments.

Different attitudes can be recognised. On the one hand, the Global North countries that consider the environmental as a “problem” in term of management of the migratory flow and in term of security (terrorism or conflicts) to be solved in an authoritarian way, on the other hand, the Global South ones, playing a victim role in order to get the “help” from the Council.

### ***Different concerns?***

Political declarations notwithstanding, the real situation is very different and the “bifrontal” behaviour of the states in the face of environmental issues, whenever

economic interests come into play, still remains very contradictory, as policies and investments most often alter the quality and the functioning of ecosystems and reduce their capacity to perform and their role as important life support systems: the impacts of this aptitude will have significant impacts on key economic sectors such as agriculture and water supply.

For example, many institutions providing basic livelihood services to the poor in developing countries are not able to cope even with today's climate variability and stresses. The security problems linked to environmental degradation, human security and internal and cross-border migrations cast doubts on the actual management and governance of common goods and the infra-generational and intergenerational equity of development models. Furthermore, also considering the phenomenon through the lenses of human security and protection, it is possible to notice that for specific areas, government are more incline to define the phenomenon as "alarming," while for other areas environmental degradation and related mobility is considered as neutral.

This result indicates that maybe the increasing attention to environmentally induced displacement in some specific areas in such alarmist ways is not a "humanitarian" preoccupation, but derives from strategic and political concerns related to immigration in Northern Countries: Western security agencies seems to prompt region-specific studies in order to underline future immigration fluxes and be able to justify restrictive immigration policies: the emphasis on data and scenarios is instrumental to a political system where the "securisation" of environmental degradation is bringing military considerations to the issue, promoting repressive tendencies.

In the same sense, Felli and Castree (2012), referring to the UK's Government Office for Science report "Migration and Global Environmental Change" (Foresight, 2011), critically consider all the neo-liberal messages the report communicates, and define them as "*'neoliberal fix' in the governance of adaptation to climate change and environmental degradation in the coming years,*" They add that "*the question of whether our efforts should be directed toward adapting as individual migrants to increasingly unadapted socioecological conditions, or whether we support the possibility of changing these very conditions. Adapting to 'global environmental change' or changing the very nature of the global environmental order? Now that is a political question*" (Felli and Castree, 2012: 4).

In this sense, we positively recognise the second corollary of the hypothesis (*We can recognise a political design to hide the phenomenon environmentally induced displacement in the Global North*) that: *There is a political design about the maximisation of the phenomenon in Global South and the minimisation of the same phenomenon in Global North.* This design perfectly fits in a neo-imperialistic paradigm, according to which the Global North analyses and helps Global South countries, differently calling, labelling and framing, and ultimately differently addressing, the same phenomenon.

Consequently, when it occurs in its own territory the phenomenon is completely denied: it is in the framework of the “emergency” that top-down measures to cope with the catastrophes and manage their consequent mobility are taken. We can recognise a parallel between the behaviour of the Global North governments and their populations (as seen for Sarno and Cerzeto) and the Global North governments or institutions (including NGOs or International Organisations) facing the Global South countries that need to be directed, counselled and financially supported (Hardt and Negri, 2000): a subaltern paradigm is, indeed, built by authorities and reproduced by media and NGOs. This hierarchy between the “victims” and the “saviours” reaffirms the power and reiterates the authority of the latter, which are, in this sense, allowed to operate through top-down politics in their own territory and are welcomed when deciding and orienting the activities of Global South countries.

\*\*\*

The misrecognition of the phenomenon of environmentally induced displacement in the Global North and the maximisation of the phenomenon in the Global South seems to be the results of a geopolitical design. This approach can be retraced considering the fact that the phenomenon of environmentally induced displacement is considered as a primitive form of mobility and is generally associated to societies jeopardised by the lack of primary resources.

The presence of external actors is justified to cope with the catastrophic situation. These discourses are often connected to specific geographic context, or to specific phenomena, with no regards to the fact that there is a deep lack of recognition of the

phenomenon at the global scale and that the protection should be extended to all the population. As we have seen from the different mentioned case studies, the phenomenon concerns the global South as well as the global North and in both contexts the involved population seems also to be susceptible of inequalities of treatment and lack of entitlement.

Firstly, I have analysed how the refrain based on the idea that environmentally induced displacement is a primitive form of mobility can also have other implications in term of international security issues. Therefore, the Global North states, promoting this mainstream point of view that looks at the phenomenon as peculiar of the Global South and as a menace for the Global North, use their authority in their relations with the Global South countries, but also to tackle the same phenomena occurring in the Global North.

Secondly it is possible to notice how the interference in the politics of third countries facing catastrophes and related mobility (under the pretext of “delivering aid”) and the governance of the same phenomenon as an “emergency” in the Global North contexts, reaffirm the global supremacy of the Global North.

Thirdly, we assist to a continuous spatial marginalisation of the phenomenon, which can be very dangerous, if we consider its visibility and its recognition in all the geographical areas under environmental pressure, in particular because this concept is used as a justification for the interference in Global South affairs and for the top-down politics in the same Global North.



## **Conclusion to part IV**

Even if it is possible to recognise a denial from the public discourse of the phenomenon of environmentally induced displacement in the Global North, this form of mobility is a last resort also for communities living in this part of the World. This approach derives from a lack of analysis about the phenomenon and a geographically biased approach concerning the definition of the phenomenon and the concepts it is related with.

First, environmentally induced displacement, erroneously recognised as a form of adaptation, is suggested as a strategy for the Global South to cope with environmental degradation and change, despite the fact that in the Global North that option is not considered at all.

Secondly, the resettlement, largely used in Global North and in Global South, is considered an optimal option to face and to prevent environmental degradation, with little or no consideration of the social and economic implications of this option. International guidelines are provided to enhance low-impacts resettlements, but Global North countries seem to not apply these directives in their territories.

Thirdly, in the general authority and media coverage and in the public opinion the Global North seems to be described as invulnerable and able to cope with environmental degradation and its related mobility. On the contrary, the Global South authorities play the roles of “victims” in seek of international aid. The detachment from local population operated by Global North authorities and the assimilation of the Global South ones to their displaced communities, in this sense, is the most evident example of this new geometry of power.

However, to produce this new paradigm of power the Global North needs a replication mechanism. The actors involved in this process are the media in general, and first of all the web and the press, but also the International Organisations, NGOs and the confessional associations. All these actors talk about the phenomenon with unsound numerical predictions and do not consider the current patterns of environmentally induced displacements, mainly focusing on future previsions. These are often based on a limited number of case studies centred in specific areas of the World, demonstrating a willingness to maximise the phenomenon in the Global South.

The misrecognition of the phenomenon in the Global North and its overestimation in the Global South hide a political design aiming to control the resources of the Global South, limiting the immigration from this area of the World. This maximisation is also reflected in the fact that environmentally induced displacement is perceived as an international security issue.

The Global North becomes, on the one end, the defender of Global South, providing its precious “help” to deal with its crises; on the other hand it has to maintain its authority within the Global North, giving the impression to limit the external menace and executing top-down policies in the control of the territory, and in the management of the mobility in the aftermath of the catastrophes, renewing the forms of coercion at local and global scale under the pretext of environmental degradation and of its consequences in terms of human mobility.

## General Conclusion

*“Words have a charge.  
I am not able to escape from the bite of a word,  
from the dizziness of question mark”.*

(Jeanson, introduction to Fanon’s *“Peau noire, masques blancs”*; 1952).

This thesis explored the question of environmentally induced displacements in the Global North. The Italian cases, as well as the two examples provided by the empirical fieldworks of Sarno and Cerzeto, have been useful to better understand that the environmentally induced displacement phenomenon is denied in this geographical context. In fact, public opinion, media, political discourses and the people involved in the displacements consequent to the catastrophes do not seem to take in consideration the displacements triggered by environmental degradation and catastrophes. The attention is mostly given to the process of victimisation, to the effectiveness of the action of the central government and to a short-term blaming process.

The denial of the nexus between environmental degradation and mobility has important consequences on power allocation at local scale. The cases of Sarno and Cerzeto showed how the lack of recognition of this phenomenon from both an economic and an administrative point of view, led to new or increased imbalance in access to power and resources, resulting in social and economical problems in affected communities.

### ***Maximisation and minimisation: a political agenda?***

In order to provide a deep analysis of the conceptualisation of the phenomenon in the Global North different theoretical approaches and different methodologies have been used. First, I framed my research considering a post-constructivist approach. Secondly, I chose to use the empirical observation in order to reconceptualise a phenomenon widely used in the academic, political and media debates. To analyse this phenomenon and its different interpretations according to a geographical approach, I decided to provide the example of Italy, and specifically of Sarno and Cerzeto. The adopted qualitative methodology included elements of geography, political sciences,

economics and communications, which gave me a variety of tools to investigate the causes for, and the consequences of, different definitions of the same phenomenon in different geographical contexts.

These two illustrative cases, along with the results from other Global North cases, have been useful for an empirical investigation on the minimisation of the phenomenon in the whole Global North. This theoretical minimisation translates into the lack of case studies in this specific geographical area, the prevailing media and political discourse and the general narrative surrounding displaced communities in the Global North. The concept of vulnerability, resettlement, adaptation or environmentally induced displaced, in fact, are commonly associated with the Global South and rarely referred to Global North displacements.

The reasons justifying this misrecognition in this specific area have different origins. Apart from the cultural Italian attitudes that revealed a pronounced fatalism, in the whole Global North the mainstream approach to catastrophes and consequent mobility is characterised by an “emergency” attitude. Contrarily, the narrative surrounding catastrophes in the Global South presents a sort of “routine” in the management of hazardous events. The presumed exceptionality of catastrophes in the Global North generates misrecognition of the phenomenon of environmentally induced displacement, causing enormous economic, social and political issues to the affected populations. At the same time, the phenomenon is widely recognised in the Global South, but countries and communities are usually portrayed as unable to manage catastrophes and consequent displacements. This maximisation – in particular for what concerns numeric predictions and origin and destination areas affected – reproduces a specific political agenda.

***Between scapegoats, fatalism and media shows: a politicisation of the environmental issue in Italy?***

The analysis of the Italian case has been useful not only to frame the empirical fieldwork, but also to try to retrace its specificities as a Global North country. I pointed out how the history of the country is deeply linked to catastrophes and how, despite this, there is not an adequate *corpus legis* for the prevention, the management of emergencies

and the protection of the displaced. This lack of juridical and normative frameworks can be related to an underlying cultural attitude.

The approach to catastrophes and consequent mobility phenomena is part of a wider fatalist mentality. According to this attitude – that often crosses with religious belief – the catastrophe represents an ineluctable event. The political, the media and the public opinion discourse confirm and reproduce this sensationalistic approach (exemplified by the earthquakes in L'Aquila and in Emilia Romagna but also by the garbage crisis in Naples), through which the central government plays the role of the saviour of the people involved in the catastrophe, who are considered as victims.

The media, in particular, have a significant function in the reproduction of a mainstream point of view on the catastrophes and their consequences: they represent the victims and the losses they have suffered in a stigmatized and unilateral way. On the one hand, they show the lack of agency of the “victims”; on the other hand, they portray the intervention of the State as a necessity, limiting the analysis about the real contestations and only reproducing stereotyped blaming processes. This is instrumental to the actors' general attitude towards misrecognition of the environmentally induced displacement phenomenon, deriving from the political will of getting rid of any responsibility, finding a scapegoat (the nature, the scientists, the local authorities) and adopting top-down politics.

### ***The consequences of the denial:***

The general observation of the Italian case opened to new questions about the consequences of the denial of environmentally induced displacement phenomena in the Global North. In order to understand what the effects of this minimisation are, I decided to provide a more in-depth analysis of the mobility consequent to two landslides in Sarno (1998) and in Cerzeto (2005). Two mentioned communities in the aftermath of the catastrophe. Secondly, I identified private and public representations of the catastrophes and consequent mobility. Finally, I interpreted the different perceptions of the actors involved in the phenomenon of environmentally induced displacement according to their vulnerability and mobility, institutional responses and social impacts of the catastrophe.

*a. An increased vulnerability?*

Thanks to primary and secondary qualitative data collected during the fieldwork, I was first able to empirically recognise short, medium and long-term mobility patterns.

These two cases have been essential in the comprehension of the fact that the mobility cannot be considered as a form of adaptation for the people affected by catastrophes, because it is associated with, and determined by, pre-existing patterns of vulnerability and access to socio-economic capital.

On the one hand, the spontaneous mobility experienced by the community of Sarno was directed towards neighbouring areas. This movement is associated with pre-existing patterns of mobility that occur on well-known routes and for as-short-as-possible periods. On the other hand, the forced resettlement experienced by the community of Cerzeto is a good example of top-down policies, useful to show how the central government adopted decisions under the cloak of the impossibility for the local authorities to solve the crisis.

In both cases, the medium and long-term negative consequences of displacement on the life of the two communities have been very significant, showing the weakness of the public authorities in their management. In fact, the process of displacement, relocation or resettlement affected social cohesion and communitarian cultural traditions, and adversely affected the power distribution within the communities.

It increased and created vulnerability strengthening patterns of unequal access to resources, disintegrating social cohesion, undermining local traditions and reinforcing role and power of local informal brokers. These elements shape the perception, the memory of the people involved in the catastrophe, their current relation with the space they used to live in, and they live in now, as well as with their past and traditions.

Moreover, in the case of the displacement in Sarno the individual perception and the intimate memories have been standardized because of public discourses reinforcing the feeling of victimisation and the uniqueness of what the community had experienced. In the case of the resettlement of Cerzeto, the collective memory – shaped by political and economic interests – tries to deny the past, while the individuals are still strictly connected to their past and struggle to get used to the present.

The cases provided some important insights in the comprehension of the limits of the description of the environmentally induced displacement phenomenon, underlying how



crucial the empirical analysis based on experience of a specific context is in order to relativize the mainstream approach through the lens of observation.

*b. An unsafer word?*

Based on the specificities observed in the fieldwork, presented in the third part of the thesis, it has been possible to reconsider the mainstream approach embedded in the academic, policy making and media discourse on the links between environmental degradation, catastrophes and human displacement.

This approach rarely focuses on individual vulnerabilities and only takes into account, in a very deterministic way, the “environmental” factor of the displacements. The reasons to rarely consider Global North communities as potentially interested by adaptation, resettlement and environmentally induced displacements derives from a Global North-based approach that generally consider this area as unaffected by the negative impacts of environmental degradation and invulnerable to hazards, thanks to its advanced economic and technological stage. On the contrary, this approach considers the Global South to be likely affected by calamities that will trigger the mobility of huge masses. This vision, which reveals an important stigmatisation of the concepts considered here, has been highlighted in the discussion concerning the concepts of adaptation and resettlement. Most often, in fact, policy recommendations about adaptation and resettlement refer to the Global South.

The different “labels” given to the people involved in mobility episodes also influence the stigmatisation of the phenomenon. The choice and the representation of the people who experience mobility because of a catastrophic event as “victims” or “refugee” at the global level modify the self-representation of mobile people themselves in different geographical contexts. The given labels are associated with other, pre-existing representations (for example: economic migrant vs. war refugee) and with some of the most important elements of related research domains that evolve during the time and shape the public opinion (climate change, sustainability, etc.), creating confusion and misleading realities, which contribute to a stigmatisation of the phenomenon. The media coverage at local and global scale plays a significant role in reproducing stereotypes and in polarizing the division between the Global North helping and the Global South to be helped. This mainstream approach, crossed with a

unilateral narrative, seems to hide other geopolitical and economic interests and a top-down approach. The maximisation of the phenomenon in specific geographic areas is supported by a concentration of empirical studies in the Global South and an overestimation of the predicted number of current and future displaced.

This biased approach reinforces the “threat” narrative. The Global North is presented as confronted to the invasion of environmentally induced displaced from the Global South, causing havoc and terrorism. This gloomy scenario seems therefore instrumental to the internal security agenda of Global North countries, worried about the potential negative impacts of population inflows on the well-being of host communities.

*c. More inequalities and less communities’ cohesion?*

The research can be inscribed in the domain that investigates the linkages between human mobility and the environment. Nevertheless, this field of studies has mostly focused on causes and effects of environmental degradation and consequent mobility/immobility or on the legal protection granted to people involved in this specific form of mobility. This research came off the beaten track and plunged in the analysis of the consequences of the different conceptualisations of the issue of environmentally induced displacement. This analysis has been based on specific examples of environmental degradation and induced mobility in Italy, a very poor studied countries in this field.

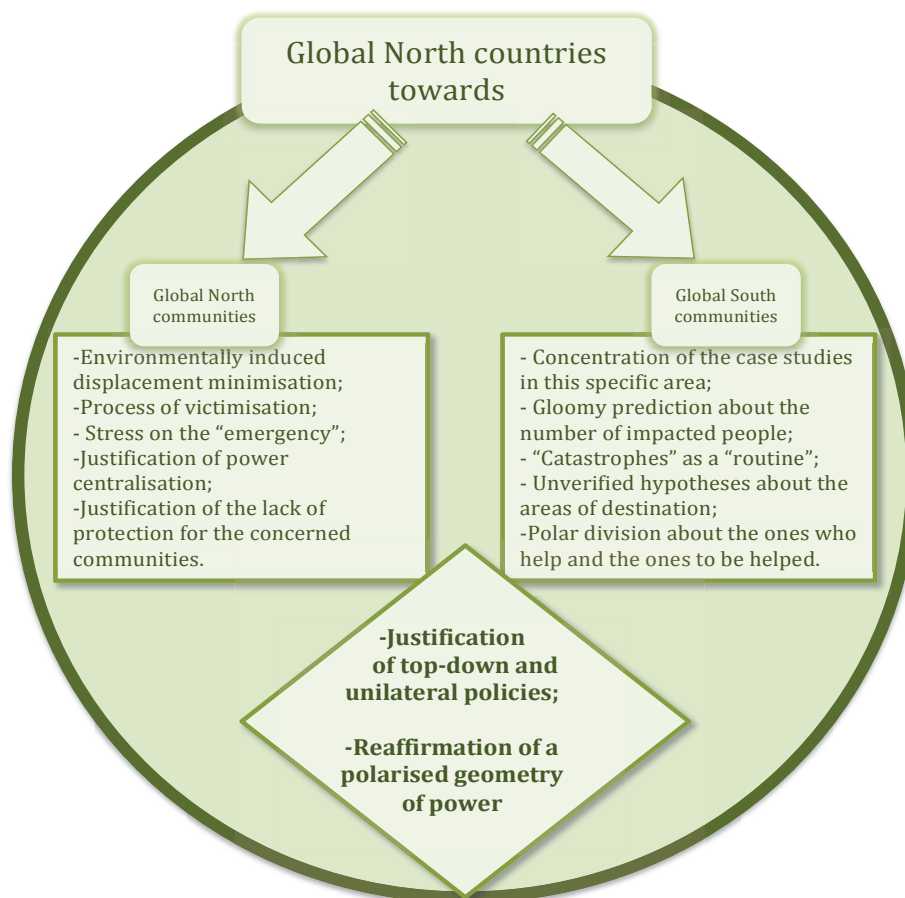
It aimed to contribute to deepening the reflexion on the different definitions of the same phenomenon in different geographical areas, in order to show the political dimension of the linkages between human mobility and the environment. Moreover, it had the objective to investigate the causes and the consequences of the minimisation/maximisation of the phenomenon gathering a geographical and a political analysis.

The misrecognition and the mainstream conceptualisations of environmentally induced displacement occurrences in Global North countries worsen the negative impacts of the phenomenon on the life of the people who experience it in this specific geographic area, because they lead to overlooking the detrimental effects of displacement on the short, medium and long-term well-being of communities, households and individuals and to leaving the affected people’s protection needs largely unaddressed.

They ultimately strengthen existing inequalities in the access to resources and severely damage the social cohesion of the communities. This misrecognition causes a strong stigmatisation of the phenomenon in the Global South, where estimates about numbers of future displaced and affected area maximise the phenomenon. This approach seems to be beneficial to powerful groups in Global North countries as it helps redefine and reinforce the power unbalance within Global North countries and between Global North and Global South, as shown in the following **Graph 10**.

The denial of the mobility consequent to catastrophes and its characterization as an “exception”, creates the theoretical and political foundation for the lack of protection for the people involved and for the implementation of top-down policies at the local level. At the global level, the marginalisation of the phenomenon allows the Global North to assume a position of relative strength, justifying a process of international polarisation between the ones “helping” and the ones “to be helped”, as well as the implementation of unilateral “development” policies.

**Graph 10: Summary of the global different approach and its consequences at global level**



*Source: Personal elaboration.*

### *The environment as an alibi?*

The cases of Sarno and Cerzeto with their associated mobility demonstrated, not only the misrecognition of environmentally induced displacement, but also how the “naturalness” of the calamity is put ahead, completely denying the shared but differentiated responsibilities with regards to environmental degradation and catastrophes. The “mountain” in both cases is identified as the guilty party: no attention is given to the lack of prevention or emergency management measures.

The negative consequences of the catastrophes are stereotyped in the short-term through a very stigmatised narrative that is never followed by a long-term analysis. Short after the event, the public opinion can forget about it and go back to its presumption of invulnerability and to the feeling to be able to control the nature, as if the catastrophe was an element exogenous to human activities. The use of the environment as a political justification can be recognised in four different elements:

1. When a catastrophe occurs “nature” is the perfect culprit for the lack of prevention and emergency management measures, as seen in the case of Sarno. Nature and environmental degradation become alibis;
2. The impact of the catastrophe on the population has impacts that can be more or less extensive and more or less intense. The event and its consequences on population mobility can be a justification for the centralisation of the emergency and recovery operations and for the decision to forcibly resettle affected people, with no regards to their real needs;
3. To face the hazardous events the central power adopts unilateral measures, as analysed for the case of Cerzeto. Again, nature and environmental degradation become an alibi;
4. At the global level, the “environment” is often used to hide actual responsibilities. The catastrophic events that occur in the Global South are often spectacularised. The accent is put on the fragility of Global South societies and the inability of their governments to face the manifestations of their hostile environment.

From these findings, it is possible to infer that the Global North is called upon to help the defenceless, as a modern paladin. This allows the reproduction of a latent hegemony of the global power through the delivery of aid politics. Once again, nature and environmental degradation become an alibi.

The different conceptualisations of the phenomenon lead to defining the displaced in the Global North as “victims” and the displaced in the Global South as “refugees”/ “migrants”/ “displaced”/ “resettled”, creating enormous stigmatisation within the public opinion. The deterministic approach that sees hundred of millions on the move in a degraded environment and in a changing climate reinforces the fear of a massive influx of environmentally induced displaced in the Global North. This unilateral vision completely denies the fact that whenever people do move, they usually move within their own countries.

Moreover, it overlooks the complexity of mobility phenomena, the individual level of agency, previous vulnerabilities and migratory projects of those affected, which ultimately determine their need and ability to move, and only takes into account one side of the complex nexus between environment and mobility. This approach, reiterated by the media, presents an unrealistic and dreadful scenario of warfare, conflicts for resources and terrorism associated to the hypothetic massive influx of people displaced by environmental degradation and catastrophes.

In a new way, environment becomes an alibi to justify restrictive immigration policies and to create a permanent, external threat, which justifies further centralisation of power and decisions and deeper control over local populations.

### ***The alienation from nature in the Global North?***

The main question of the thesis dealt with the misrecognition of the environmentally induced displacement phenomenon in the Global North. *Why the environmentally induced displacement phenomenon is not generally recognised in the Global North, even if it does exist in this area of the world?*

This question has been the theme of this research. From the general example of Italy, down to the specific fieldwork investigations, I was able to observe a widespread misrecognition of the phenomenon. The reasons are both cultural and political.

On the one hand, a “fatalistic” approach to the catastrophe characterises the Italian reality as a justification for the lack of preventive, emergency management and post-catastrophe recovery measures. On the other end, this misrecognition justifies a top-down approach to the phenomenon.

These preliminary answers allowed me to investigate the possible analogies of the Italian context with the general Global North one. The “fatalism,” which in Italy is strongly rooted onto religious beliefs, finds a counterpart in the complete alienation from nature of affluent societies everywhere else. In fact, both attitudes seem to put the accent on the extraneousness of the natural environment, which is not considered as a constitutive part of human life and activities.

The denial of the potential impact on population mobility of catastrophic events is, indeed, affirmed as a symbol of presumed invulnerability. The consequences of this attitude of minimisation – created at the political level and reproduced by the media – shapes the mind of the Global North communities who deny their status of environmentally induced displacement, affirm their role of “victims”, and contribute to stigmatising the phenomenon into specific geographical areas.

The phenomenon is not recognised in the Global North by institutions for several reasons: first of all, to avoid the necessity to justify the lack of prevention and the poor management of emergency and recovery in the aftermath of catastrophes; secondly, to avoid the recognition of a specific category of people who could need economic or psycho-social assistance; thirdly, to allow the reproduction and strengthening of power structures through unilateral and top-down politics.

Instead, the attention on the phenomenon focuses on the Global South, where the biggest number of case studies is produced and from where mobility flows are expected. The mainstream representation of the phenomenon by media and politicians, academics and NGOs is associated to this specific geographical context, in a way that most often denies multi-causality and complexity of catastrophes and their consequences.

The political reasons hidden behind the different conceptualisations of the phenomenon are diverse, as highlighted through the analysis of the Italian case and of the whole Global North, and have serious consequences on the life of communities, households and individuals who experiment mobility in the aftermath of catastrophes in both the Global South and the Global North.



The reasons to reproduce this narrative are political and economic: reconsidering the main hypothesis of the thesis, *we can recognise a political design to hide the phenomenon of environmentally induced displacement in the Global North*.

### ***Epilogues and possible future researches***

The research has been mostly carried out between 2011 and 2013. I am still in contact with some people I met during my fieldworks (in particular with some associations' members and many people I met in the universities). With some of them, we are now conceiving forms of future research collaborations.

From the analysis in Sarno and Cerzeto, in fact, different themes emerged that could be used as a starting point for future researches, either furthering the observation of the two examples or analysing them in comparison or association with other Global North and Global South cases or considering other research tools.

1. First, it could be interesting to revisit Sarno and Cerzeto in two and then five years to evaluate the changes in the life of the two communities: will they finally recognise and claim their status of environmentally induced displaced?

For the case of Sarno: will all the affected people obtain their houses back? How will the new generations perceive the catastrophe? Will the local authorities rehabilitate the old hospital as memorial of the catastrophe?

For the case of Cerzeto: will people get used to the new settlement? What will happen when all the people who lived in the old settlement will have passed away? Do the authorities turn the old settlement into a collective heritage?

2. Secondly, it could be productive to analyse more in depth descriptions and representations of environmentally induced displacements providing a comparison with other Italian and European cases. Global North and Global South ones, focusing on press, TV, internet and the political discourse, using communication tools and analytic software to recognize how different labels are used in association with specific geographical areas. This analysis on the media could be done at the local and international scale.

3. Thirdly, mapping all the studies conducted in the latest decades in this field of research, could reveal how mainstream representations are embedded in the academic discourse, especially if the analysis was to take into account not only the country studied, but also the definition given to the different communities depending on the place and year and on the catastrophe they were affected by.

4. Finally, It could be very fruitful having a deeper reflexion about the Italian media discourse in the consideration of the environmentally induced displacements, thanks to a more systematic, comprehensive and analytic review of TV debates and press articles.

This could open the door to new reflexions about the stigmatisation of specific phenomena, in specific geographical areas. Moreover, it would allow analysing the power relations existing between studying and studied countries.

\*\*\*

Rethinking about the conceptualisation of the environmentally induced displacement phenomenon does not only mean to re-frame its theoretical approach. It means to have a paradigm shift in order to give correct value to the words and to the category of people they define. Because words are common goods and as the goods, they are neutral but *“their uses are social, they can be used as fences or bridges.”* (Douglas and Isherwood, 1979: 12).

## Table of abbreviations

**AdB:** Autorità di Bacino - Cathchment Area Authority

**ANCI:** Associazione Nazionale Comuni Italiani- Italian Minicipalities National Association

**ARCADIS:** Agenzia Regionale Campana per la Difesa del Suolo- CampaniaRegional Agency for territorial Defence

**ASL:** Azienda Sanitaria Locale- Local Sanitary Authority

**COM:** Centro Operativo Misto- Mix Operational Centre

**CCS:** Centro di Coordinamento Soccorsi- Rescues Coordination Centre

**DEVAST programme:** The Disaster EVAcuation and RiSk PercepTion in Democracies

**EACH-FOR programme:** Environmental Change and Forced Migration Scenarios

**EMDAT:** The Emergency Events Database

**EXCLIM programme:** Exils Climatiques

**FAO:** Food and Agriculture Organisation

**GDI:** Gender Related Development Index

**GDP:** Gross Domestic Product

**GHG:** Green House Gas

**HDI:** Human Development Index

**ICMED:** International Coordinating Mechanism for Environmental Displacement

**IOM:** International Organisation for Migration

**IOCPGSIA:** Interorganizational Committee on Principles and Guidelines for Social Impact Assessment

**IPCC:** Intergovernmental Panel on Climate Change

**ISDR:** United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction

**ISTAT:** Istituto Nazionale di Statistica- National Institute of Statistics

**NGO:** Non Governmental organisation

**OCHA:** Office for the Coordination of Humanitarian Affairs

**PC:** Protezione Civile- Civil Protection

**RAINFALL programme:** Where the Rain Falls

**UNFCCC:** United Nations Framework Convention on Climate Change

**UNHCR:** United Nations High Commissioner for Refugees

**UNEP:** United Nations Environmental Programme

**UNESCO:** United Nation Educational, Scientific and Cultural Organization

**UNDESA:** United Nation Department of Economic and Social Affairs

**UNDP:** United Nations Development Programme

**WB:** The World Bank

**WHO:** The World Health Organisation

## Bibliography

### A

AA.VV., (1994). Atti del XVII Convegno di Studi Storici tenutosi a Rovigo il 22 – 23 – 24 novembre 1991 in occasione del quarantennale dell'alluvione. Rovigo: Minnelliana.

ABRIC J.C., (1994). *Les représentations sociales: aspects théoriques*. In ABRIC J.C., (ed.), (1994). *Pratiques sociales des représentations*. Paris: Presses Universitaires de France.

ABBRUZZESE A., (2012). *Appunti scritti al margine di un convegno sulla catastrofe*. In RAGONE G., (ed.), (2012). *Lo spettacolo della fine*. Milano: Guerini Scientifica Editore.

ACOT P., (2007). *Catastrophes climatiques, désastres sociaux*, Paris: Presses Universitaires de France.

ADAMO S., (2008). Addressing Environmentally Induced Population Displacements: a Delicate Task. *Background paper for Cyberseminar on Environmentally Induced Population Displacements, Population-Environment Research Network*. Available from [http://www.populationenvironmentresearch.org/papers/sadamo\\_pern2008.pdf](http://www.populationenvironmentresearch.org/papers/sadamo_pern2008.pdf), last access April 2014.

ADGER W.N., (2000). Social and ecological resilience: are they related?. London: *Progress in Human Geography*, 24. 347–364.

ADGER W.N., (2003). Social capital, collective action, and adaptation to climate change. Oxford: *Economic Geography*. (79): 387-404.

ADGER W.N., HUQ S., BROWN K., CONWAY D. and HULME M. (2003). Adaptation to climate change in the developing world. London: *Progress in Development Studies*. (3): 179-195.

AFIFI T., (2008a). The Impact of Environmental Problems on Migration in Egypt. Environment. *Forced Migration and Social Vulnerability (EFMSV) International Conference*. UNU-EHS, Bonn.

AFIFI T., (2008b). The Impact of Environmental Problems on Migration in the Republic of Niger. *Environment, Forced Migration and Social Vulnerability (EFMSV) International Conference*. UNU-EHS, Bonn.

ALEXANDER D., (2012). Models of Social Vulnerability to Disasters. Coimbra: *Revista Critica de Ciencia Sociais*. (4): 22-40.

ALFARN DE RIVERA C., (1833). *Considerazioni sui mezzi da restituire il valore proprio ai doni che la natura ha largamento concesso al Regno delle due Sicilie*. Napoli: Reale Archivio Borbonico.

ALMÉRÍA STATEMENT, (1994). *The Almería Statement on Desertification and Migration*. International Symposium on Desertification and Migrations.

AMBROSINI, M., (2005) *Sociologia delle Migrazioni*, Bologna: Edizioni Il Mulino.

AMIN S., (1974). Accumulation and Development. A theoretical model. *Review of Africal Political Economy*. (1).

AMIN S., (2011). *Global History: A View from the South*. Cape Town: Pambazuka Press.

ANCE/CRESME (2012). *Lo Stato Del Territorio Italiano 2012 Insediamento e Rischio Sismico e Idrogeologico*, Roma: Associazione Nazionale Comuni Italiani /Centro Ricerche Economiche Sociologiche e di Mercato Edile.

ANGIOLINI V., (1986). *Necessità ed emergenza nel diritto pubblico*. Padova: Edizioni Cedam.

ARAWAL A., and PERRIN N., (2009). *Adapting to climate change*. Cambridge: Cambridge University Press.

ARCULEO A. and MARRADI A., (1985). Elezioni e referenda negli anni settanta. Bologna: *Rivista italiana di scienza politica*. (XV, 1).

ASDAL K., (2003). The problematic nature of nature: The post-constructivist challenge to environmental history. Middletown: *History and Theory*. 42(4): 60-74.

ASHCROFT B., GRIFFITHS G. and TIFFIN H. (1989). *The Empire Writes Back : Theory and Practice in Postcolonial Literatures*. New York: Routledge.

ASOR ROSA A., (2012). *Catastrofe e Apocalissi: riflessioni intorno ad alcuni concetti fondativi dell'Occidente*. In RAGONE G., (2012). *Lo spettacolo della fine*. Milano: Guerini Scientifica Editore.

AUGÉ M., (1992). *Non-Lieux. Introduction à une anthropologie de la surmodernité*, Paris: Seuil,



AUGUSTONI A., (2005). *Chiarezza, credibilità e competenza. Una valutazione degli attori della comunicazione*. In LOMBARDI M., (ed.), (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

AYANDA J. O., (1988). Economics of Traditional Fish Preservation and Storage Technique in Jebba. *National Institute for Freshwater Fisheries Research 1988 Annual Report*. 242-244.

## B

BANFIELD E.C., (1958). *The moral basis of a Backward Society*. Glencoe: The Free Press.

BANKOFF G. (2001). Rendering the world unsafe: “Vulnerability” as Western discourse. London: *Disasters*, 25, 19-35.

BARBIER E. B., MARKANDYA A., PEARCE D. W., (1990). Environmental sustainability and cost - benefit analysis. Vancouver: *Environment and Planning A*. 22 (9): 1259 –1266.

BARNETT J. and WEBBER M., (2010). Accommodating Migration to Promote Adaptation to Climate Change. Washington D.C.: *WB Policy Research Working Paper*. 5270.

BARNETT J., and O’NEILL S.J., (2012). Islands, resettlement and adaptation. London: *Nature Climate Change*. (2): 8–10.

BASILIEU-GAINCHE M.L., (2012). *Le temps des vulnérabilités*. In ZARKA Y.C., (ed.), (2012). *Le monde émergent – Eléments*. Paris: Armand Col: 93-113.

BATES D. C., (2002). Environmental refugees? Classifying human migrations caused by environmental change. Boulder: *Population and Environment*, 23 (5): 465-477.

BATTISTA ALFANO G., and AMITRANO A., (1950). *Il miracolo di S. Gennaro*. Napoli: Artigrafiche Vincenzo Scarpati.

BECK U. (1986). *Risikogesellschaft: Auf dem Weg in eine andere Moderne*, Suhrkamp, Frankfurt. French trans: (2008). *La société du Risque. Sur la voie d’un autre modernité*. Paris: Flammarion.

BECK U., (1995). *Ecological Politics in an Age of Risk*. Cambridge: Polity Press.

BECK U., (1997). “The Relations of Definitions: Cultural and Legal Contexts of Media

Constructions of Risk”, unpublished paper presented at the symposium ‘Media, Risk and the Environment’, University of Wales.

BECK U., (2006). Living in the world risk society. London: *Economy and Society*. (35) 3: 329-345.

BECKER H. S., (1970). *Sociological Work: Method and Substance*. Chicago: Aldine.

BENADUSI M., BRAMBILLA C., RICCIO B., (2011). Disasters, development and Humanitarian Aid. New challenges for anthropology, Bergamo: *Quaderni del Center for research on the anthropology and epistemology of complexity*. (10): 39-46.

BERETTA I., (2005). *Il campione e l'apercezione del rischio*. In In LOMBARDI M., (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

BERGER, P. L., and LUCKMANN T., (1966). *The social construction of reality: a treatise in the sociology of knowledge*. London: Penguin ed.

BERMAN, T., (1988). For the taking: The Garrison Dam and the tribal taking area. Cambridge: *Cultural Survival*, Vol. 12(2).

BERNARD, H. R. (2002) *Research methods in Anthropology: Qualitative and Quantitative Methods*. New York, Oxford: Altamira Press, 2002.

BERTAUX, D. (1980). L'approche biographique, sa validité méthodologique, ses potentialités. *Cahiers internationaux de sociologie*. LXIX(2): 198-225.

BLACK R., (1998). *Refugees, Environment and Development*. New York: Addison Wesley.

BLACK R., (2001). Environmental Refugees: Myth or Reality. *New Issues in Refugee Research*, (34): 1-20.

BLACK R., BENNETT S. R. G., THOMAS S. R. and BEDDINGTON J. M., (2011). Climate change: Migration as adaptation. London: *Nature*. 478 (7370): 447–449.

BLAIKIE, P., CANNON T., DAVIS I., and WISNER B., (1994). *At Risk: Natural Hazards, People's Vulnerability, and Disasters*. London: Routledge.

BLOCH M., (1967). *La società feudale*. Torino: Einaudi.

BLOK, A. (2010). Divided socio-natures: Essays on the co-construction of science, society and the global environment (PhD thesis) PhD thesis, University of Copenhagen.

BLUMLER J., and MCQUAIL D., (1968). *Television in Politics*. London: Faber and Faber Editions.

BOANO C., (2008). Environmentally displaced people: Understanding the linkages between environmental change, livelihoods and forced migration. Oxford: *Forced Migration Policy Briefings*. (1).

BOANO C., ZETTER R., and MORRIS T., (2008). *Environmentally displaced people. Understanding the linkages between environmental change, livelihoods and forced migration*, Oxford: Refugee Studies Centre.

BONI F., (2012). Lo Spettacolo della Catastrofe. Il Disastro della Città e La Comunicazione del Potere. In RAGONE G., (2012). *Lo spettacolo della fine*. Milano: Guerini Scientifica Editore.

BORDIGA O., (1924). Le frane dell'Amalfitano nel 1924: cause, effetti e rimedi. *Atti Ist Incoraggiamento*. S 6-76.

BORJAS G.J., (1989). Economic Theory and International Migration. New York: *International Migration Review* (23) 3, Special Silver Anniversary Issue: 457-485.

BOYD E. C., (2010). Estimating and mapping the direct flood fatality rate for flooding in greater New Orleans due to Hurricane Katrina. *Risk, Hazards & Crisis in Public Policy* 1 (3).

BRAUDEL F., (1965). *Civiltà e Imperi del Mediterraneo nell'età di Filippo II*. Torino: Einaudi Editore.

BRICMONT J., (2006). *Humanitarian Imperialism. Using Human Rights to Sell War*. New York: Monthly Review Press.

BRONDI F. and SALVATORI L., (2003). *The 5–6 May 1998 mudflows in Campania, Italy*. In HERVÁS J. (2003). *Lessons learned from landslide disasters in Europe*. Brussels: European Commission Joint Research Centre: 5–16.

BRONFENBRENNER U. (1977). Toward an experimental ecology of human development. Washington D.C.: *American Psychologist*. 32: 513-531.

BROOKS N., ADGER W.N. and KELLY P.M. (2004). The determinants of vulnerability and adaptive capacity at the national level and the implications for adaptation. Exter: *Global Environmental Change*. 15 (2005):151–163.

BROWN L. R., (2004). "New flows of environmental refugees". Peopleandplanet.net. Available at: <http://www.peopleandtheplanet.com/?lid=27712&topic=27&section=33>, last access March 2014.

BROWN L., (2011). *World on the Edge*. London, Washington, D.C.: Earthscan

BROWN L., MCGRATH P., and STOKES B., (1976). Twenty-two dimensions of the population problem. Washington D. C.: *Worldwatch Paper*. (5)

BROWN O., (2008). *Migration and Climate Change*, Geneva: International Organization for Migration.

BRU J.L., (2006). *Roch de Montpellier, pèlerin de l'amour : roman historique*. Paris: Téqui, 2006.

BUECHLER S., (2009). Gender, Water and Climate Change in Sonora, Mexico: Implications for Policies and Programmes on Agricultural Income Generation. London: *Special Issue on Climate Change for journal Gender and Development*. 17(1): 51-66.

BURSON B., (2010). *Climate Change and Migration South Pacific Perspectives*. Wellington: Institute of Policy Studies.

## C

CAMUS G., (1965). *L'état de nécessité en démocratie*, Paris: Librairie générale de droit et de jurisprudence.

CAPALBO F., (1918). Di alcune colonie albanesi della Calabria Citra. *Archivio Storico della Calabria*. Tome V: 259-288.

CAPALBO C., (1990). *Il paesaggio agrario e gli insediamenti urbani*. In ROTELLI C., (ed.), (1990). *Gli albanesi di Calabria*. Cosenza: Orizzonti Meridionali: 43-70.

CAPORALE R., (2010). "The may 1998 landslides in the Sarno Area in Southern Italy: rethinking disaster theory", available at: <http://www.colorado.edu/hazards/qr/qr131/qr131.html>, last access October 2013.

CARITAS DIOCESANA, (1999). *Non solo fango*. Nocera Inferiore: Associazione Arché edizioni.

CASTLES S., (2002). Environmental change and forced migration: making sense of the debate. Geneva: *New Issues in Refugee Research - UNHCR Research Paper* (70): 1-14.

CASTLES S., and MILLER M. J., (1998). *The Age of Migration: International Population Movements in the Modern World*. London: Macmillan Editions.

CASUCCI S. and LIBERATORE, P. (2012). "Una valutazione economica dei danni causati dai disastri naturali". Available at: <http://archivio.eddyburg.it/article/articleview/19070/0/420/>. Last access March 2014.

CATALANO A., (2000). *Guida breve alla normativa dell'alluvione del 5 maggio 1998*. Nocera Inferiore: Edizioni Arché.

CATES D.F., (2003). Conceiving Emotions: Martha Nussbaum's "Upheavals of Thought" *The Journal of Religious Ethics*, 31 (2): 325-341.

CAVAYE A.L.M., (1996). Case Study Research: a Multi-faceted Research Approach for IS. *Information Systems Journal* (6:3): 227-242.

CEDERNA C., (1980). *Nostra Italia del Miracolo*. Milano: Edizioni Mondadori.

CELERINO R., (2004). *L'Italia delle alluvioni, un'analisi economica*. Milano: Franco Angeli.

CELICO P., GUADAGNO F. M., (1998). *L'instabilità delle coltri piro-clastiche delle dorsali carbonatiche in Campania: attuali conoscenze*. Naples: Consiglio Nazionale della Ricerca- Gruppo Nazionale Difesa Catastrofi Idrogeologiche.

CERNEA M., (1988). Involuntary Resettlement in Development Projects: Policy and Guidelines. World Bank Financed Projects, vol. 1. Washington, D.C.: *World Bank. Technical Paper*. 80.

CERNEA M., (1996). Understanding and Preventing Impoverishment from Displacement - Reflections on the State of Knowledge. In MCDOWELL C. (1996). *Understanding Impoverishment: the Consequences of Development-Induced Displacement*. Providence: Berhahn Books : 13-32.

CERNEA M., (1999). The Economics of Involuntary Resettlement. Questions and Challenges. Washington D.C.: The World Bank.

CERNEA M. and GUGGENHEIM S. E., (1993). *Anthropological Approaches to Resettlement: Policy, practice, and theory*. Oxford: Westview Press.

CHANDLER E.H.S., (1959). *High Tower of Refuge: The Inspiring Story of Refugee Relief throughout the World*. London: Odhams Press.

CHATTY D., (1994). *Petroleum exploitation and the displacement of pastoral nomadic households in Oman*. SHAMI S. (ed.), (1994). *Population Displacement and Resettlement: Development and conflict in the Middle*. New York: Center for Migration Studies.

CHOMSKY N., (2008). Humanitarian Imperialism: The New Doctrine of Imperial Right. *Monthly Review*, September 2008. Available at: <http://www.chomsky.info/articles/200809--.htm>, last access March 2014.

CHRISTIAN AID, (2007). *Human Tide: The Real Migration Crisis*. London: Christian Aid.

CLARY B.B., (1985). The evolution and structure of natural hazard policies. Vancouver: *Public Administration Review*, (45): 20-28.

CNR/IRPI, (2005). *Scenari di pericolosità relativi alla frazione di Cavallerizzo del Comune di Cerzeto*. Roma-Firenze: Protezione Civile, Centro Nazionale della Ricerca/Istituto di Ricerca per la Protezione Idrogeologica.

COHEN S., (1972). *Folk Devils and Moral Panics*. London: MacGibbon and Kee Editions.

COLCHESTER M. (2000). Dams, Indigenous People and Vulnerable Ethnic Minorities, Cape Town, South Africa: *Thematic Review 1.2 prepared as an input to the World Commission on Dams*, 2000.

COLLINS D.N., (2009). Forced Migration and Resettlement in the Pacific - Development of a Model addressing the Resettlement of Forced Migrants in the Pacific Islands Region from Analysis of the Banaban and Bikinian Cases. *A thesis submitted in fulfilment of the requirements for the Degree of Master of Arts in Political Science in the University of Canterbury*.

COMUNE DI CERZETO, (2009). *Studi geologici frana di Cavallerizzo del 7/03/2005 – consegna dati su supporto informatico*". Protocollo n° 4183 del 01/10/2009.

CONSOLI S., (1973). *Sant'Agata Vergine e Martire catanese*. Catania: Edizioni Catanesi.

COTTLE S., (1998). Ulrich Beck, 'Risk Society' and the Media A Catastrophic View?. London: *European Journal of Communication*. Vol. 13(1): 5-32.



COVA T. J., and CHURCH L. R. (1997). Modeling Community Evacuation Vulnerability Using GIS. Wageningen. *International Journal of Geographical Information Science*. (11):763–84.

CRESWELL J.W. (1994). *Research Design: Qualitative and Quantitative Approaches*. London: SAGE.

CROCE B., (1942). Perché non possiamo non dirci cristiani. Naples: *La Critica*. Nov/42.

CRONBACH L. J. (1975). Beyond the two disciplines of scientific psychology. *American Psychologist*. (30): 671–84.

CROSBY A., (1986). *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*. Cambridge: Cambridge University Press.

CUCCA R., (2005). *Il coinvolgimento dei cittadini nella prevenzione del rischio naturale*. In LOMBARDI M., (ed.), (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

CUTTER S.L., (1993). *Living with risk*. London: Edward Arnold Press.

CUTTER S.L., (1996). Vulnerability to Environmental Hazards. London: *Progress in Human Geography* 20(4): 529–39.

CUTTER S. L., (2011). *The Katrina Exodus: Internal Displacements and Unequal Outcomes*. London: Government Office for Science.

CUTTER S. L., MITCHELL J. T., and SCOTT M. S., (2000). Revealing the Vulnerability of People and Places: A Case Study of Georgetown County, South Carolina. Washington D.C: *Annals of the Association of American Geographers*, 90(4): 713–37.

## D

D'ORLANDO F., FERRANTE F., and RUIU G., (2011). Culturally based beliefs and labor market institutions. Beer Sheva: *The Journal of Socio-Economics*, 40 :150-162.

D'ALISA G., (2012). Case study Profile: Sarno in Italy. *Clico (7<sup>th</sup> Programme, 2012)*.

DALBY S., (2002). Environmental change and human security. Vancouver: *Canadian Journal of Policy Research* 3(2): 71–9.

DASGUPTA S., LAPLANTE B., MURRAY S., and WHEELER D., (2007). The Impact of Sea Level Rise on Developing Countries. A Comparative Analysis. Washington, D.C.: World Bank, *World Bank Policy Research Working Paper 4136*.

DAVIS M., (1998). *Los Angeles and the Imagination of Disaster*. New York: Metropolitan Books.

DAVIS M., (2002). *Dead cities and other tales*. London: Paperback.

DAVIS M., (2006). *A planete of Slum*. London: Verso.

DAVISSEN J., and LONG S., (2003). *Islands are lost even before the sea-level rises: The impacts of climate change on small island states*. London: Friends of the Earth.

DE MARTINO E., (1982). *Sud e Magia*. Torino: Einaudi.

DEAR C., and MCCOOL S., (2010). Causes and Consequences of Displacement Decision-making in Banhine National Park, Mozambique. New York: *Conservation and Society*. (8): 103-11.

DEBACHERE M.C., (1995). Problems in obtaining grey literature. The Hague: *International Federation of Library Associations Journal*. 21(2): 94-98.

DECROP G., (2008). Un statut de réfugié environnemental est-il une réponse pertinente aux effets sociaux du réchauffement climatique?, Paris: *REVUE Asylon(s)*, 6.

DEL BOCA D., and VENTURINI A., (2003). Italian migration. In *Iza Discussion paper*, 938, Nov.

DEL PRETE M., GUADAGNO F.M. and HAWKINS A.B. (1998). Preliminary report on the landslide of 5 May 1998, Campania, southern Italy. Hidelberg: *Bulletin of Engineering Geology and the Environment*, 57: 113-129.

DELANEY P. and SHRADER E., (2000). *Gender and Post-Disaster Reconstruction: the Case of Hurricane Mitch in Honduras and Nicaragua*. LCSPG/LAC, Gender Team, The World Bank.

DENZIN N. K. and Y. S. LINCOLN (1994). *Handbook of Qualitative Research*. London: SAGE.

DI MARTIRE D., DE ROSA M., PESCE V., SANTANGELO M.A., and CALCATERRA D., (2012). Landslide hazard and land management in high-density

urban areas of Campania region, Italy. Göttingen: *Nat. Hazards Earth System Science*. (12): 905–926.

DIAMOND J., (2005). *Collapse: How societies choose to fail or succeed*. New York: Penguin Books.

DOISE W., (1985). Les representations sociales: définitions d'un concept. Paris: *Connexions*. (45): 245-253

DÖÖS B. R., (1997). Can large-scale environmental migrations be predicted?. Exter: *Global Environmental Change*. 7(1): 41–61.

DOUGLAS M., (1992) *Risk and Blame: Essays in Cultural Theory*. London: Routledge.

DOUGLAS M., (1996). *Natural Symbols: Explorations in Cosmology*. London: Routledge.

DOUGLAS M., and ISHERWOOD B., (1979). *The World of Goods: Towards an Anthropology of Consumption*. New York: Basic Books.

DRÈZE J., SAMSON M., and SINGH S, (1997). *The Dam and the Nation: Displacement and resettlement in the Narmada Valley*. Delhi: Oxford University Press.

DRYDYK J., (1999). Development-Induced Displacement and John Rawls's "General Conception" of Justice. *Project Report*. Shastri Indo-Canadian Institute & Canadian International Development Agency.

DUNEIER M., et AL., (1999). *Sidewalk*. New York: Farrar, Straus and Giroux.

DWYER S C. and BUCKLE J.L., (2009). The Space Between: On Being an Insider-Outsider in Qualitative Research. Edmonton: *International Journal of Qualitative Methods*. (8): 54–63.

## E

EBERHARDT E. (2005). *Landslide risk management*. London: Taylor & Francis Group: 381–389.

EC, (2003). *Lesson learnt from Landslide disasters in Europe*. Varese: European Commission and Ispra.

EEA, (2013). *Adaptation in Europe Addressing risks and opportunities from climate change in the context of socio-economic developments*. Copenhagen: European Environmental Agency. No 3/2013.

EISENHARDT K.M., (1989). Building theories from Case Study Research. New York: *Academy of Management Review*. 14 (4): 532 - 550.

EL-HINNAWI E., (1985). *Environmental Refugees*. Nairobi: United Nations Environment Programme.

ENARSON E., (2000). A Gender Analysis of Work and Employment Issues in Natural Disasters. *Final report prepared for the In Focus Programme on Crisis and Reconstruction*, the International Labour Organization.

ERBANI F., (2010). *Il disastro. L'Aquila dopo il terremoto: le scelte e le colpe*. Roma: Laterza Editore.

ERIKSEN S.H. and O'BRIAN K., (2007). Vulnerability, poverty and the need for sustainable adaptation measures. London: *Climate Policy*, 7(4). 337–352.

ESPELAND W. N., and STEVENS M. S., (2008). A Sociology of Quantification. Cambridge: *European Journal of Sociology*. (49) 3: 401-436.

EU, (2007). *Operational Programme "Calabria"*. EU: Programme under the Convergence Objective, co-funded by the European Regional Development Fund.

EYRE A. (1999). In remembrance: post-disaster rituals and symbols. Richmond: *American Journal of Emergency Medicine*. 14 (3): 95-103.

EWALD F., (1999). *Insurence and risk*. In BURCHELL, et AL. *The Foucault effect: Studies in Governmentality*, Chicago: The University Chicago.

## **F**

FAIST T., (1997). *The crucial meso-level*. In HAMMAR et AL. (eds.). *International migration, immobility and development: multidisciplinary perspectives*, Oxford: Berg. Hirschman.

FANON F., (1961). *Les Damnés de la Terre*. Paris: François Maspero.

FEBVRE L., (1980). *La Terra e l'evoluzione umana. Introduzione geografica alla storia*. Torino: Einaudi.

FELICE C., (2010). *Le trappole dell'Identità. L'Abbruzzo, le Catastrofi, l'Italia di Oggi*. Roma: Donzelli.

FELLI R., (2008). Justice globale pour les réfugié-e-s climatiques ?. Paris: *Asylon(s)*, 7.

FELLI R., and CASTREE N., (2012). Neoliberalising adaptation to environmental change: foresight or foreclosure?. London: *Environment and Planning A*. 44(1): 1-4.

FERRAIUOLO L., (2003). *San Rocco pellegrino e guaritore*. Milano: Paoline Editoriale Libri.

FERRIS E., (2011). Climate Change and Internal Displacement: A Contribution to the Discussion. *Brookings-Bern Project on Internal Displacement February 2011*.

FINDLAY A. M., (2011). Migrant destinations in an era of environmental change. *Exter: Global Environmental Change*. 21, Supplement 1(0): S50-S58.

FISHER M., and BRASCHLER M., (2011). *The Human Face of Climate Change*. Bonn: Hatje Cantz Editions.

FLINTAN F., (2001). Environmental Refugees - A Misnomer or A Reality?. *A contribution to the Wilton Park Conference Report*. Report of the Wilton Park Conference on Environmental Security and Conflict Prevention, 1-3 March 2001.

FLOOD L.U., (1997). Sardar Sarovar Dam: A Case Study of Development-induced Environmental Displacement. York: *Refuge* 16 (3).

FONIO C., (2005). *I media e la comunicazione di un disastro naturale. I casi del 1987 e del 2002 in Valtellina*. In LOMBARDI M., (ed.), (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

FORESIGHT, (2011). *Mountainous regions workshop the International Centre for Integrated Mountain Development (ICIMOD) 28 February to 1 March 2011*. Government Office for Science, UK.

FREUD S., (1913). *Totem and Taboo*. New York: Moffat Yard and Company.

FRITZ C. E., (1961) *Disaster*, In Merton R.K. and Nisbet R.A., (eds.). (1961). *Contemporary Social Problems*. New York: Harcourt.

FÜNFELD H. and D. MCEVOY (2011) *Framing Climate Change Adaptation in Policy and Practice*. Melbourne: Victorian Centre for Climate Change Adaptation Research.

## G

GALANTI E., (2008). *La protezione civile nella pianificazione e gestione delle emergenze sismiche: dal nulla a riferimento su scala mondiale*. Roma: Presidenza del Consiglio dei Ministri.

GALEOTTI G., (1971). *I movimenti migratori interni in Italia*. Bari: Cacucci Editore.

GALTUNG J., O'BRIEN P. and PREISWERK R., (1980). *Self Reliance: A Strategy for Development*, London: Bogie-L'Ouverture Publications.

GEERTZ C., (1973). *The Interpretation of Cultures*. New York: Basic Books.

GEMENNE F., (2009). *Géopolitique du changement climatique*. Paris: Armand Colin.

GEMENNE F., (2010a). Tuvalu, Un Laboratoire Du Changement Climatique? Une critique empirique de la rhétorique des 'canaris dans la mine'. Paris: *Revue Tiers Monde* (204): 1-19.

GEMENNE F., (2011). *The State of Environmental Migration 2010*. Geneva: International Organization for Migration.

GENOVESE E., PRZYLUSKI V., SCHNEIDER M., and DÉQUÉ M. (2012). *Xynthia: déroulement de la tempête et conséquences en France in Gestion des risques naturels*. In PRZYLUSKI V., and HALLEGATTE S., (eds.), (2012). *Gestion des risques naturels: Leçons de la tempête Xynthia*. Versailles: Édition Quae.

GERMAN ADVISORY COUNCIL ON GLOBAL CHANGE, (2008). *World in Transition: Climate Change as a Security Risk. Summary for policy-makers*. London: Earthscan Publications Ltd.

GERRING J., (2004). What is a case study and what it is good for?. *American Political Science Review*. 98(2): 341-354.

GIURA V., (1970). *Note sugli albanesi d'Italia nel Mezzogiorno*. Udine: Società italiana di demografia storica.

GOFFMAN E., (1963). *Stigmates - Les usages sociaux des handicaps*. Paris: Éditions de Minuit.

GOTTMANN, J., (1973). *The Significance of Territory*. Charlottesville: University Press of Virginia.



GUADAGNO F. M., MARTINO S., and SCARASCIA MUGNOZZA G. (2003). Influence of man-made cuts on the stability of pyroclastic covers (Campania – Southern Italy): a numerical modelling approach. Denver: *Environmental Geology*. (43): 371-384.

GUERRICCHIO A., (1988). *Relazione geologica preliminare sulle indagini geognostiche da effettuare nell'area di pertinenza di un fabbricato IACP lesionato*. Cerzeto: Comune di Cerzeto.

GUHA-SAPIR D., HOYOIS P., and BELOW R., (2013). *Annual Disaster Statistical Review 2012: The Numbers and Trends*. Brussels: Centre for Research on the Epidemiology of Disasters.

GUIART J., (2009). *Étudier sa propre culture. Expériences de terrain et méthodes*. Paris: L'Harmattan.

GUION L. A., DIEHL D. C., and MCDONALD D., (2011). "Triangulation: Establishing the Validity of Qualitative Studies". The Institute of Food and Agricultural Sciences in Florida. Available at: <https://edis.ifas.ufl.edu/pdf/files/FY/FY39400.pdf>, last access April 2014.

GUZZETTI F., (2000). Landslide fatalities and evaluation of landslide risk in Italy. Vancouver: *Engineering Geology*. (58): 89–107.

GUZZETTI F., SALVATI, P., and STARK, C. P., (2005) *Evaluation of risk to the population posed by natural hazards in Italy*. In HUNGR O., FELL R., COUTURE R., and EBERHARDT E. (eds.), (2005). *Landslide risk management*. London: Taylor & Francis Group.

## H

HABERMAS G., (1975). *Legitimation crisis*. Boston: Beacon Press.

HACKING I., (1999). *The social construction of what?*. Cambridge, Mass., Harvard University Press.

HANNAM K., SELLER M., and URRY J., Mobilities, Immobilities and Moorings, Lancaster: *Mobilities*. (1)1: 1–22.

HANSEN A. (1984). *Landslide hazard analysis*. In BRUNSDEN D. and PRIOR D.B. (1984). *Slope Instability*. New York: John Wiley and Sons: 523–602.

HARAWAY D., (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. Taliaferro: *Feminist Studies*. 14(3): 575-599.

HARDT M., and NEGRI A., (2000). *Empire*. Cambridge: Harvard University Press.

HARRIS J., and ROACH B., (2007). The Economics of Global Climate Change, [http://www.ase.tufts.edu/gdae/education\\_materials/modules.html](http://www.ase.tufts.edu/gdae/education_materials/modules.html), last access January 2014.

HARTMAN C.W and SQUIRES G.D. (2006). There is No Such Thing as a Natural Disaster. New York: Taylor & Francis.

HARTMANN B., (2010). Rethinking climate refugees and climate conflict: rhetoric, reality and the politics of policy discourse. *Journal of International Development*, 22, 233–246.

HARVEY D., (1973). *Social justice and the city*. Baltimore: Johns Hopkins University Press.

HATTON T., and WILLIAMSON J., (2002). What Fundamentals Drive World Migration?. Cambridge: *National Bureau of Economic Research. Working Paper*, (n. 9159).

HAYTER T., (1971). *Aid as Imperialism*. Harmondsworth: Penguin editions.

HEGEL F., (1807). *The phenomenology of the Spirit*. Bamberg/Würzburg

HESSE C., and COTULA L., (2006). Climate change and pastoralists: Investing in people to respond to adversity. London: *Sustainable Development Opinion Papers*.

HIGATE P. and CAMERON A., (2006). Reflexivity and Researching the Military. Round Rock: *Armed Forces and Society* 23 (2): 219-233.

HOBBS T., (1651). *Leviathan*. (edition of 1994). Indianapolis: Hackett.

HOFSTEDE G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.

HOLLING C.S., (1986). *The resilience of terrestrial ecosystems; local surprise and global change*. In CLARK, W.C. and MUNN R.E., (1986). *Sustainable Development of the Biosphere*. Cambridge: Cambridge University Press..

HOMER-DIXON T. F., (1991). On the threshold: Environmental changes as causes of acute conflict. Harvard: *International Security*, (16): 76–116.

HOMER-DIXON T. F., (1999). *Environment, Scarcity and Violence*. Princeton: Princeton University Press.

HORNSBY K., and EGENHOFER M.J., (2000). Identity-based change: a foundation for spatio-temporal knowledge representation. *Int.j. Geographical Information Science*. Vol. 14, no. 3: 207-224.

HUGO G. J., (1981) *Village community ties, village norms, and ethnic and social networks: a review of evidence from the Third World*, in DEJONG G.F. and GARDNER R.W, (eds.), (1981). *Migration Decision Making*. New York: Pergamon Editions.

HUGO G. J., (1996). Environmental concerns and international migration. New York: *International Migration Review*. 30 (1): 105–131.

HUGUETTE V., (1994). L'hydrologie artificialisée de l'Isère en amont de Grenoble. Essai de quantification des impacts des aménagements. Grenoble: *Revue de géographie alpine*. 82 (2): 97-112.

HUNGR O., EVANS S., BOVIS M.I. and HUTCHINSON I.N. (2001). A review of classification of landslides of the flow type. Alexandria: *Env. & Eng. Geoscience*. (7): 221-238.

HUNTER L. and DAVID E. (2011). *Displacement, Climate Change, and Gender*. In FIGUET E., PÉCOUD A., and DE GUCHTENEIRE P., (eds.), (2011). *Migration and Climate Change*. New York: Cambridge University Press: 306-330.

## I

IETTO A., (1976). Geologia e pianificazione territoriale e urbana in Calabria. Cosenza: *Memoria Società Geologica Italiana*. 14.

IETTO F., (2010). *Dati storici e dubbi sull'indotto della frana di Cavallerizzo di Cerzeto (Cosenza) di Marzo 2005*. Roma: *Geologia dell'ambiente*. 3 (2010): 9-13.

INDERFURTH K.F., FABRYCKY D., and COHEN S., (2005). The Indian Ocean Tsunami: Six month report. *The Sigur Center Asia Papers*. 23.

INTERORGANIZATIONAL COMMITTEE ON PRINCIPLES AND GUIDELINES FOR SOCIAL IMPACT ASSESSMENT, (2003). Principles and Guidelines for Social

Impact Assessment in the USA. *Impact Assessment and Project Appraisal*. 21 (3): 231-250.

IOM and UNDP., (2012). Climate Change Adaptation and Migration in the Mekong Delta. *Proceedings of a workshop organized by the IOM, UNDP, & CTU*. Can Tho University 4th – 5th June 2012.

IOM, (2008). *World Migration Report 2008: Managing Labour Mobility in the Evolving Global Economy*. Geneva: International Organisation for Migration.

IOVINO F., (2005). Giornata di studio “Foreste, rierca e cultura”. *L'Italia Forestale e Montana*. 60 (6): 673-676.

IPCC, (2001). *Climate Change 2001: Impacts, Adaptation and Vulnerability*. IPCC Third Assessment Report. Cambridge: Intergovernmental Panel for Climate Change and Tar.

IPCC, (2007). *Intergovernmental Panel on Climate Change fourth assessment report on scientific aspects of climate change for researchers, students and policymakers*. Cambridge: Cambridge: Intergovernmental Panel for Climate Change.

ISDR, (2003). *Disaster Reduction and Sustainable Development*. Geneva: International Strategy for Disaster Reduction.

ISDR, (2007). *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. Extract from the final report of the World Conference on Disaster Reduction (A/CONF.206/6)*: International Strategy for Disaster Reduction.

ISPRA, (2009). *Rapporto rifiuti urbani*. Roma: Istituto Superiore per la Protezione dell'ambiente.

ISTAT, (2010). *Rapporto Annuale*. Roma: Istituto Nazionale di Statistica.

IRPI/CNR, (2005). *Scenari di pericolosità relativi alla frazione di Cavallerizzo del Comune di Cerzeto*. Firenze: Istituto di Ricerca per la Protezione Idrogeologica/Centro Nazionale delle Ricerche.

## **J**

JACOBSON J., (1988). Environmental Refugees: A Yardstick of Habitability. *Worldwatch Paper* 86.

JAFFE A., (1997). *Narrating the "I" versus Narrating the "Isle": Life Histories and the Problem of Representation on Corsica*. In JAFFE A., (ed.), (1997). *Auto/Ethnography: Rewriting the Self and the Social*. Oxford: Berg.

JIBRIL I. U., (1990). Resettlement Problems in Usman Town of Nigeria's New Federal Capital Territory. Unpublished M.Sc. Thesis of Bayero University, Kano, Nigeria. Ibadan: Nigerian Institute for Social and Economic Research.

## K

KANT I., (1975). *Perpetual Peace*. ( edition of 1903). London: George Allen & Unwin Ltd.

KANUHA V. K. (2000). Being' Native versus 'Going Native': Conducting Social Work Research as an Insider. Oxford: *Social Work*. (45) :439–47.

KENT, (2009). *A l'eau, la Terre!*. Paris: Alofa Tuvalu and Agence de l'Environnement et de la Maîtrise de l'Énergie.

KHADRIA B., (2011). What would be the impact on the future global migration system – and, specifically, on environmental migration – if the Colombo process succeeded in its aims (i.e. relatively free mobility takes place within Asia, including to the Gulf region)?. Government Office for Science, UK. *Migration and Global Environmental Change*. Series 20: 13-26.

KIBREAB G., (1997). Environmental Causes and Impacts of Refugee Movements : a Critique of the Current Debate. London: *Disasters*. 21 (1): 20-38.

KLEIN N. (2007). *The Shock Doctrine, The Rise of Disaster Capitalism*, 2007. New York: A Metropolitan Book.

KLEIN, R. J. T. and NICHOLLS, R.J., (1999). Assessment of coastal vulnerability to climate change. Heidelberg: *Ambio*. 28(2): 182-187.

KNIVETON D. and SCHMIDT-VERKERK K., (2009). Challenges and approaches to measuring the migration–environment nexus. In LACZKO F et AL., (2009). *Migration, Environment and Climate Change: Assessing the Evidence*, Geneva: International Organisation for Migration.

KOHLBACHER F., (2006). The Use of Qualitative Content Analysis in Case Study Research. FQS, 7 (1). Availabe at <http://www.qualitative-research.net/index.php/fqs/article/%20view/75/153January%202006>. Last access June 2013.

KOLLMAR M., and BANERJEE S., (2011). *Drivers of Migration in Mountainous Regions of the Developing World: A Review*. London: Government Office for Science, UK.

KOLMANNSKOG V., and TREBBI L., (2010). Climate change, natural disasters and displacement: a multi-track approach to filling the protection gaps. Geneva: *International Review of the Red Cross*. 92 (879).

KOLMANNSKOG V.O., (2008). *Future Floods of Refugees – A Comment on Climate Change, Conflict and Forced Migration*, Oslo: Norwegian Refugee Council.

KOTZ D.M., (2002). Globalization and Neoliberalism. *Kalmazoo: Rethinking Marxism*, 14 (2): 64-79.

KRONIK, J., and VERNER D., (2010). Indigenous Peoples and Climate Change in Latin America and the Caribbean. World Bank. <http://www.worldbank.icebox.ingenta.com/content/wb/bk18237>.

KUMAR K., (2004). *From Post-Industrial to Post-Modern Society: New Theories of the Contemporary World*. Oxford: Blackwell Publishers Ltd.

KUMAR S., (2002). *Methods for Community Participation: A Complete Guide for Practitioners*. London: ITDG Publishing.

## L

LA CAPRA D., (2001). *Writing History, Writing Trauma*. Baltimore: Johns Hopkins University Press.

LA ROVERE, E.L. and MENDES, F.E., (2000). Tucurí Hydropower Complex Brazil. Tucurí Hydropower Complex Brazil. Cape Town, South Africa: *Case study prepared for the World Commission Dams*.

LACZKO F. and AGHAZARM C., (2009). *Migration, Environment and Climate Change: Assessing the Evidence*. Geneva: IOM.

LASSAILLY-JACOB V., (1983). Grands barrages africains et prise en compte des populations locales. Paris: *L'Espace géographique*. (1): 46-58.

LASSAILLY-JACOB, V., (1996). *Land-based strategies in dam-related resettlement programmes in Africa*. In MCDOWELL C. (ed.). (1996). *Understanding*



*Impoverishment: The consequences of development-induced displacement.* Oxford: Berghahn Books: 187-199.

LASSAILLY-JACOB V., (2000). *Les territoires du déracinement. Migrations forcées et développement en Afrique et ailleurs.* HDR, Paris I.

LASSAILLY-JACOB V., ZMOLEK M., eds, (1992). *Environmental Refugees.* York: *Refuge.* 12 (1), special edition.

LATOUR B., (1999). *Politiques de la nature. Comment faire entrer les sciences en démocratie ?.* Paris: Édition La Découverte.

LATOUR B., (2005). *Reassembling the social: an introduction to actor-network-theory.* Oxford: Oxford University Press.

LATOUR B., (2011). *Waiting for Gaia. Composing the common world through arts and politics.* A lecture at the French Institute, London, November 2011 for the launching of SPEAP (the Sciences Po program in arts & politics).

LATOUR B., and WOOLGAR S., (1986). *Laboratory life: the construction of scientific facts.* Princeton: Princeton University Press.

LAVERGNE M., (2010). Le réchauffement climatique à l'origine de la crise du Darfur. Paris: *Revue Tiers Monde.* (204): 69-88.

LAZARUS N., (2002). *The Fetish of 'the West' in Postcolonial Theory.* In BARTOLOVICH C., and LAZARUS N., (eds.). (2002). *Marxism, Modernity and Postcolonial Studies.* Cambridge: Cambridge University Press: 43-64.

LECLERC-OLIVE M., (2003). Entre mémoire et expérience, le passé qui insiste: Comment dans d'autres cultures, en Afrique, en Amérique latine, se négocie aujourd'hui la tension entre mémoire et expérience, Paris: *Projet*, 1 (273): 96-104.

LEE S., (2001). Emerging Threats to International Security: Environment, Refugees, and Conflict. Seoul: *Journal Of International And Area Studies.* 8 (1): 73-90.

LEGAMBIENTE (1998). *Sarno, la tragedia un anno dopo.* Milano: Edizioni Ambiente.

LEGAMBIENTE, (2000). Sarno...La grande incompiuta. La tragedia del 5 maggio... due anni dopo. *Dossier Legambiente*, May 2000.

LEGAMBIENTE, (2009). *Ecomafia.* Milano: Edizioni Ambiente.

LEGAMBIENTE and PROTEZIONE CIVILE (2010). *Ecosistema Rischio, Calabria*. Milano: Edizioni Ambiente.

LEWANSKI R., and LIBERATORE A., (2002). *Environmental Protection in Italy: Analysing the Local, National and European Community Levels of Policy-making*. in UNDAI, DESAI, (2002). *Environmental Politics and Policy in Industrialised country*. Cambridge: The MIT Press.

LEWIS O., (1966). *La vida*. New York: Random House.

LIBESKIND D. (2004). *Breaking Ground*. New York: Riverhead Books

LINCOLN Y. S., and GUBA E. G., (1985). *Naturalistic inquiry*. Beverly Hills. CA: Sage.

LIVOLSI M., (1969). *Comunicazioni e cultura di massa*. Milano: Edizioni Hoepli.

LOCKE J., (1690). *Two Treatises of Government and A Letter Concerning Toleration*. (edition of 2003). New Haven: Yale University Press.

LOGAN J., (2006). Population Displacement and Post-Katrina Politics: The New Orleans Mayoral Race, 2006. *American Communities Project Brown University*. Available at <http://www.s4.brown.edu/katrina/report2.pdf>. Last access June 2013.

LOMBARDI M., (1993). *Tsunami. Crisis management della comunicazione*. Milano: Vita & Pensiero Edizioni.

LOMBARDI M. (1997). Media studies. Mattoon: *International Journal of Mass Emergencies and Disasters*. 15(1): 103-116.

LOMBARDI M., (2005). *Strategie di comunicazione nelle situazioni di rischio naturale*. In LOMBARDI M., (ed.) (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

LOMNITZ L., (1977). *Networks and Marginality: Life in a Mexican Shantytown*. San Francisco: Academic Press.

LOWE, P., and MORRISON D., (1984). Bad news or good news: Environmental politics and the mass media. *American Sociological Review*. 3275 (90): 3275-90.

LYNCH K., (1960). *The Image of the City*. Cambridge: M.I.T. Press.

## M

MAGNAN A., and DUVAT V., (2014). *Des catastrophes... "naturelles"?*. Paris: Le Pommier-Belin.

MA J.H.S. (2011). Introduction to Quantification and Its Concerns. Hong Kong: *In Dialogue with Nature*, Autumn.

MALAFRONTA et AL., (2002). Psychosocial consequence of the 1998 landslide in Sarno, Italy. Munich: *European Psychiatry*. (17): 143-153.

MAN J. K., (1962). "Nominalism", in *Dictionary of Philosophy*. Littlefield: Adams, & Co Editions.

MANTOVANI G., and SPAGNOLI A., (2003). *Metodi qualitativi in psicologia*. Bologna: Il Mulino Editore.

MARIANELLI A., (1993). *La Costruzione del Rischio*. Modelli e Paradigmi interpretativi nelle scienze sociali. Milano: Franco Angeli.

MARX K., (1867). *Capital: Critique of political economy*. Available at <http://www.marxists.org/archive/marx/works/1867-c1/>, last access September 2013.

MASSEY D., AXINN W., and GHIMIRE D., (2007). *Environmental change and out-migration: Evidence from Nepal*. Michigan: Population Studies Centre, University of Michigan, Institute for Social Research.

MAYKUT P., and MOREHOUSE R., (1994). *Beginning qualitative researchers: A philosophical and practical guide*. Washington, DC: Falmer.

MCADAM J., (2010). *Climate Change and Displacement: Multidisciplinary Perspectives*. Hart, Oxford.

MCLEMAN R., and HUNTER L.M., (2010). Migration in the context of vulnerability and adaptation to climate change: Insights from analogues. London: *Climate Change*, 1(3): 450–461.

MCLEMAN R., and SMIT B., (2006). Migration as an Adaptation for Climate Change. *Climatic Change*. (76): 31–53.

MCQUAIL D., (2005). *McQuail's Mass Communication Theory*. London: SAGE.

MILES M.B., and HUBERMAN A.M., (1994). *Qualitative Data Analysis: An Expanded Sourcebook*, Thousand Oaks: SAGE.

MILLER, C. A. (2004). *Climate science and the making of a global political order. States of knowledge: The co-production of science and social order*. London: Routledge.

MILLIKAN B.H., (1992). Tropical deforestation, land degradation and society: Lessons from Rondonia, Brazil. London: *Latin American Perspectives*. (19): 45–72.

MINAMBIENTE, (2006). *Report on Italy*. Ministero dell’Ambiente, del Territorio e del Mare.

MLINAR Z., (ed.) (1992). *Globalization and territorial identities*. Aldershot: Avebury.

MOL A., (1999). Ontological politics: a word and some questions. Actor Network Theory. J. Law and J. Hassard, Oxford and Keele: Blackwell and the Sociological Review: 74-89.

MONTESQUIEU C.L.,(1748). *De l'esprit des lois*. Amsterdam: Chatelain.

MORIN E., (2008). *Mon chemin. Entretiens avec Djénane Kareh Tager*. Paris: Fayard

MOSER C. and NORTON A., (2001). *To Claim our Rights: Livelihood Security, Human Rights and Sustainable Development*. London: Overseas Development Institute.

MULHALL A., (2002). In the field: notes on observation in qualitative research. *Journal of Advanced Nursing*. 41(3): 306–313.

MYERS N., (1993). Environmental refugees in a globally warmed world. *Karnataka: Bioscience*, 43: 752–761.

MYERS N., (1994). *Scarcity or Abundance. A debate on the Environment*. New York: W.W. Norton Press.

MYERS N., (1995). *Report on Environmental Refugees*. Washington D.C: Climate Institute.

MYERS N., (1997). Environmental refugees. Boulder: *Population and Environment*, 19 (2): 167-182.

MYERS N., (2001a). *Environmental Refugees: a growing phenomenon of the 21<sup>st</sup> century*, London: The Royal Society.

MYERS N., (2001b). Exploring The Frontiers of Environmental Science. The lecture at occasion of laureate of the Blue Planet Prize by The Asahi Glass Foundation in Tokyo.

## N

NAIK A., (2009). Migration and Natural Disasters. In IOM, (2009). *Migration, Environment and Climate Change: Assessing the Evidence*, Geneva: IOM. 245-317. Available at [http://publications.iom.int/bookstore/free/migration\\_and\\_environment.pdf](http://publications.iom.int/bookstore/free/migration_and_environment.pdf). Last access June 2013.

NICHOLSON S., (2001). Climatic and environmental change in Africa during the last two centuries. Oldendorf: *Climatic Research* 17: 123-144.

NIGRO G., GALLI I., and PODERICO C. (1989). *I bambini e il nucleare. Genesi ed evoluzione di una rappresentazione sociale*. Milano: Giuffr  Editore.

NO  L. and ROSSI-DORIA M., (1977). *I problemi della difesa del suolo*. Milano: Franco Angeli Editore.

NOTO A., (2009). *Messina 1908: i disastri e la percezione del terrore nell'evento terremoto*. Rubbettino: Soveria Mannelli.

NUSSBAUM M., (1997). *Poetic Justice*. Boston: Beacon Press.

## O

O'KEEFE P., WESTGATE K., and WISNER B., (1976). Taking the naturalness out of natural disasters. London: *Nature*. 260 (5552): 566–567.

OBOOKATA R., VERONIS L. and MCLEMAN R., (2014). Empirical research on international environmental migration: a systematic review. Dordrecht: *Population and Environment*. (10.1007). Availbale at: [http://download.springer.com/static/pdf/155/art%253A10.1007%252Fs11111-014-0210-7.pdf?auth66=1406719888\\_fe283a9ee20dba95ba04965fa99f28dc&ext=.pdf](http://download.springer.com/static/pdf/155/art%253A10.1007%252Fs11111-014-0210-7.pdf?auth66=1406719888_fe283a9ee20dba95ba04965fa99f28dc&ext=.pdf), last access April 2014.

OLAWAPO R. A., (2008). Resettlement and Dynamics of Rural Change in Jebba Lake Basin, Nigeria. Haryana: *Journal of Social Science*. 16 (2): 115-120.

OLIVIER DE SARDAN J.-P., (1995). La politique du terrain. Marseille: *Enqu te*. (1): 71-109.

OLLITRAUT S., (2010). De la sauvegarde de la plan te   celle des r fugi s climatiques: l'activisme des ONG. Paris: *Revue Tiers Monde*. (204): 19-34.

OLSSON P., FOLKE C., and BERKES, F., (2004). Adaptive comanagement for building resilience in social-ecological systems, Berkley: *Environmental management*. 34 (1). 75-90.

OLTEDAL S., MOEN B.E., KLEMPE H., and RUNDMO T., (2004). *Explaining risk perception: an evaluation of cultural theory*, Trondheim: Norwegian University of Science and Technology.

O'REILLY K., (2009). *Key Concepts in Ethnography*. London: SAGE.

ORESKE N., (2004). Beyond the Ivory Tower: The Scientific Consensus on Climate Change. New York: *Science*, 306: 1686.

ORIENTALE-CAPUTO, (2007). *Gli immigrati in Campania. Evoluzione della presenza, inserimento lavorativo e processi di stabilizzazione*. Milano: Franco Angeli.

ORTOLANO L., and KAO CUSHING K., (2000). Grand Coulee Dam and the Columbia Basin Project. Cape Town, South Africa: Case study report prepared as an input to the World Commission on Dams.

ORUONYE E.D., (2011). The socio-economic impact of the Lake Chad resettlement scheme, Nigeria. Derby: *African Journal of Environmental Science and Technology*. 5 (3): 238-245.

ORUONYE E.D., (2012). An Assessment of the Socio-Economic Impact of Urban Development-Induced Resettlement Scheme in Nigerian Cities: A Case Study of the Nyamusala – ATC Road Construction in Jalingo Metropolis, Taraba State. Bargandubi: *International Review of Social Sciences and Humanities*. 3 (1): 1-9.

OTUNNU O. 1992. Environmental refugees in sub-Saharan Africa: Causes and effects. York: *Refuge*. (12): 11–14.

## P

PALLONI A., MASSEY D.S., CEBALLOS M., ESPINOSA K., and SPITTEL M., (2001). Social capital and international migration: A test using information of family networks. Chicago. *American Journal of Sociology*. (106): 1262-1298.

PANAYOTOU T., (1997). Demystifying the environmental Kuznets curve: Turning a black box into a policy tool. Cambridge: *Environment and Development Economics*. (2): 465-484.



PARKER D. J., GREEN C. H., and THOMPSON P. M., (1987). *Urban flood protection benefits, a project appraisal guide*. Gower: Aldershot.

PELLING M. (2003). *The vulnerability of cities: Natural disasters and social resilience*. London: Earthscan.

PETERSON W.A., (1958). A General Typology of Migration. Washington D.C: *American Sociological Review*. 23 (3): 256-266.

PETRUCCI O., and VERSACE P. (2005). Frane e alluvioni in provincia di Cosenza agli inizi del '900: ricerche storiche nella documentazione del Genio Civile. Cosenza: *I Quaderno dell'Osservatorio di Documentazione del Dipartimento di Difesa del Suolo*.

PICARELLI L., (2001). Landslide hazard scenarios in Campania. *Centro Mediterraneo Cambiamenti Climatici Rersearch Paper*. (89).

PICKERING A., (1989). *Living in the Material World: On Realism and Experimental Practice*. Cambridge: Cambridge University Press.

PIGUET E., PÉCOUD A. and DE GUCHTENEIRE P., (2011). *Migration and Climate Change*. Cambridge: Cambridge University Press.

PIPER N., (2008). *New Perspectives on Gender and Migration – Rights, Entitlements and Livelihoods*. London: Routledge.

PIPERNO F., (2002). From Albania To Italy: Formation and basic features of a binational migration system, *Background paper for the CEME-CeSPI research mission in Italy and Albania*. (5-9 June 2002).

POPP K., (2014). *Regional Policy Perspectives*. In PIGUET E., and LACZKO F., (eds.), (2014). *People on the Move in a Changing Climate*. Geneva: International Organisation for Migration. (2): 229-253.

PRINCE S. H., (1920). *Catastrophe and Social Change*. New York: AMS Press.

PRZYLUSKI V., and HALLEGATTE S., (eds.), (2012). *Gestion des risques naturels. Leçons de la tempête Xynthia*. Versailles: Quae

PUTNAM R. D., LEONARDI R., NANETTI R.Y., (1994). *Making Democracy Work. Civic traditions in modern Italy*. Princeton: Princeton University Press.

## R

RADEMACHER-SCHULZ C., SALIFU MAHAMA E., (2012). Where the Rain Falls project. Case study: Ghana. Results from Nadowli District, Upper West Region, Ghana. Report. United Nations University Institute for Environment and Human Security (UNU-EHS). Bonn.

RAGONE G., (2012). *Lo spettacolo della fine*. Milano: Guerini Scientifica.

RANIERI C., (1841). *Sul funesto avvenimento della notte dal 21 al 22 gennaio 1841 nel comune di Gragnano*. Naples: Boerio.

RAPP K. and AGRAWAL P., (1999). Involuntary Resettlement in the Vietnam First Highway Rehabilitation Project. Wasington D.C.: *Social Development Notes*. (49).

RATZEL F., (1882). *Anthropogeographie oder Grundzuge der Anwendung der Erdkunde auf die Geschichte*. Stuttgart: Verlag von J. Engelhom.

RAVENSTEIN E. G. (1885). The Laws of Migration. London: *Journal of the Royal Statistical Society*, (48): 167-235.

RAWLS J., (1971). *A theory of justice*. Harvard: Harvard University Press.

RED CROSS and RED CRESCENT, (2001). *World Disasters Report 2001*. Geneva: International Federation of Red Cross and Red Crescent Societies.

RELPH E., (1976). *Place and Placelessness*. London: Pion.

RENAUD F., BOGARDI J.J., DUN O., and WARNER K. (2007). Control, Adapt or Flee: How to Face Environmental Migration?. Bonn: *InterSecTions*. (5).

REVET S., (2002). Qui suis-je? Qui sommes-nous? Entre catégorisation et stigmat. Comment les damnificados vénézuéliens négocient-ils leurs appartenances?. Paris: *Cahiers des Amériques latines*. (40): 159-176.

REVET S., (2007). *Anthropologie d'une catastrophe. Les coulées de boue de 1999 au Venezuela*. Paris: Presses Sorbonne Nouvelle.

REYNERI E., (1979). *La catena migratoria*. Bologna: Il Mulino.

RIEFF D., (2002). *A Bed for the Night: Humanitarianism in Crisis*. New York: Simon & Schuster.

- RIMBAUD A., (1875). *Les Illuminations: Après le déluge*. Paris: BUF.
- RODRIGUEZ-PEREYRA G., (2008). "Nominalism in Metaphysics", *The Stanford Encyclopedia of Philosophy*, Stanford: Edward N. Zalta Ed.
- RODRIGUEZ, J., VOS, F., BELOWS, R. and GUHA-SAPIR, D., (2008). *Annual Disaster Statistic Review*, Centre for Research on the Epidemiology of Disasters and World Health Organisation.
- RODWELL D., (2007). *Conservation: Background*. In RODWELL D. (ed.) (2007). *Conservation and Sustainability in Historic Cities*. London: Blackwell Publishing Ltd.
- RONZONI M. R., (2001). *Il senso della periferia. Tecniche di riqualificazione ambientale*. Firenze: Alinea Editore.
- ROOK D.W., (1985). The Ritual Dimension of Consumer Behavior. Chicago: *Journal of Consumer Research*. (12): 251-264.
- ROSE, A. and LIM D., (2002). Business interruption losses from natural hazards: conceptual and methodological issues in the case of the Northridge earthquake. Middlesex: *Environmental hazards*. (4): 1-14.
- ROSSI G., ANCARANI A., (2002). Innovation in water legislation in Italy: ecosystem protection and stakeholders participation. Putrajaya: *International Journal of Water*. 2 (1): 17-33.
- ROTTER J.B., (1966). Generalized expectancies for internal versus external control of reinforcement. Washington D.C.: *Psychological Monographs*. (80).
- ROWLEY J., (2002). Using Case Studies in Research. Bingley: *Management Research News*, 25 (1): 16-27.
- RUIU G., (2012). Is fatalism a cultural belief? An empirical analysis on the origin of fatalistic tendencies. *Munich Personal Archive Paper*. (41705).

## S

- SAID E., (1977). *Orientalism*. London: Penguin.
- SALVATI P., BIANCHI C., ROSSI M., and GUZZETTI F., (2010). Societal landslide and flood risk in Italy. London: *National Hazards Earth System Sciences*. (10): 465-483.

SAPIKOWSKI L., (2012). Mourning in Absent Memorials. Los Angeles: *International Journal of Humanities and Social Science*. 2 (13).

SARAMAGO J., (1995). *Blindness*. London: Paperback.

SARRAF M., and JIWANJI M., (2001). Beating the Resource Curse. New York: *The World Bank Environment Department Papers*. (8).

SASSEN S., (1991). *The Global City: New York, London, Tokyo*. Princeton: Princeton University Press.

SCANLON T. J, and ALLDRED S., 1982. Media Coverage of Disasters: The Same Old Story. Ottawa: *Emergency Planning Digest*. (9): 13-19.

SCHADE J., (2002). Les migrants des politiques climatiques: nouveaux défis face aux déplacements générés par les changements climatiques. Paris: *Cultures & Conflits*. 2012/4 (88): 85-110.

SCHEUFELE D.A.,(1999). Framing as a Theory of Media Effects. London: *Journal of Communication*. 49(1): 103-122.

SCHNAIBERG A., and GOULD K. A., (1994). *Environment and Society: The Enduring Conflict*. New York: St. Martin's Press.

SCHOON M., (2005). A Short Historical Overview of the Concepts of Resilience, Vulnerability, and Adaptation. *Workshop in Political Theory and Policy Analysis Indiana University Working Paper W05-4*. Available at: [http://www.indiana.edu/~iupolsci/gradcv/schoon/historical\\_critique.pdf](http://www.indiana.edu/~iupolsci/gradcv/schoon/historical_critique.pdf), last access September 2013.

SCOTT J., (1985). *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yale: Yale University Press.

SCUDDER, T., (1996). *Development-induced impoverishment, resistance and river-basin development*. In McDowell C., (ed.), (1996). *Understanding Impoverishment: The consequences of development-induced displacement*. Oxford: Berghahn Books: 49-74.

SEALE C. (1999). Quality in qualitative research. London: *Qualitative Inquiry*. 5(4): 465-478.

SEMPLE E. C., (1911). *Influences of Geographic Environment*. New York: Henry Holt and Company.

- SEN A., (1976). Poverty An Ordinal Approach to Measurements, Washington D.C: *Econometrica*, 44.
- SEN A., (1989). Development as Capability Expansion. Liverpool: *Journal of Development Planning*. (19): 41–58.
- SEN A., (1992). *Inequality Re-examined*, Oxford: Clarendon Press.
- SEN A., (1999). *Development as Freedom*. Oxford: Oxford University Press.
- SEN S. and NIELSEN J. R.. (1996). Fisheries co-management: a comparative analysis. London: *Marine Policy*. 20(5): 405-418.
- SEN A. and NUSSBAUM M., (1993). *The Quality of Life*. New York: Oxford Clarendon Press.
- SHAMI S., (1994). *Population, Displacement and Resettlement: Development and conflict in the Middle East*. New York: Center for Migration Studies.
- SHIHATA I., (1993). Legal aspects of involuntary population resettlement. In CERNEA M. and GUGGENHEIM S. E., (ed.), (1993). *Anthropological Approaches to Resettlement: Policy, practice, and theory*. Oxford: Westview: 39-54.
- SIGGELKOW N., (2007). Persuasion with case studies. London: *Academy of Management Journal*, (50): 20-24.
- SILVERMAN D. (2000). *Doing qualitative research: A practical handbook*. London: SAGE.
- SIRICA A., (1999). *Per Te*, Sarno: Labirinto.
- SIYARANAMUL M.D., (2009). *Constructing the Model of Environmental Migration*. Working Papers in Economics and Development Studies (WoPEDS) Department of Economics, Padjadjaran University.
- SJAASTAD L. A., (1962). The Costs and Returns of Human Migration. Chicago: *The Journal of Political Economy*. (70): 80-93.
- SKEGGS B., (2004). *Class, Self, Culture*. London: Routledge.
- SMIT, B., BURTON I., KLEIN R., and WANDEL J., (2000). An anatomy of adaptation to climate change and variability, Vancouver: *Climatic Change*, 45 (1): 233–251.

SMIT, B., PILIFOSOVA O., BURTON I., CHALLENGER B., HUQ S., KLEIN R.J.T. and YOHE G, (2001). Adaptation to climate change in the context of sustainable development and equity. *Climate Change 2001: Impacts, Adaptation and Vulnerability*. Contribution of the Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change,

SMITH K. (2002). *Environmental Hazards, Assessing risk and reducing disasters*. London- New York: Routledge.

SMITHERS, J. and SMIT B., (1997). Human adaptation to climatic variability and change. *Global Environmental Change*, 7(2): 129-146.

SOPRINTENDENZA PER I BENI ARCHITETTONICI (CS), (2009). “*Cavallerizzo frazione di Cerzeto. Necessità di conservazione del nucleo storico*”, Protocollo n° 2337/P del 16 aprile 2009.

SOPRINTENDENZA PER I BENI ARCHITETTONICI (CS), (2009) “*Cavallerizzo di Cerzeto. Diniego alla demolizione del centro storico*”, Protocollo n° 1373/P del 6 luglio 2009.

SOOMIN L., and SHIRLEY S., (2009). Eco-Imperialism: The Global North’s Weapon of Mass intervention. Delray Beach: *Journal of Alternative Perspectives in the Social Sciences*. (1) 3: 846-860.

STAKE R., (1995). *The art of case research*. Newbury Park: SAGE.

STAL M., (2010). Mozambique - Inondations et réinstallation : la vallée du Zambèze. Paris: *Revue Hommes et migrations*. (1284): 28-40.

STARR J. R., (1991). Water Wars. Tampa: *Foreign Policy*. (82): 17–36.

STEINEMBERG T., (2000). *Acts of God, The Unnatural History of Natural Disasters in America*. New York: Oxford University Press.

STERN N., (2007). The current debate on the linkage between global warming and hurricanes. Malden: *Geography Compass*. 1(1): 1-24.

SUHRKE A., and VISENTIN A., (1991). The Environmental Refugee: A New Approach. Montréal: *Ecodecision*. (2): 73-84.



SWARTZ P. and RANDALL D., (2003). An Abrupt Climate Change Scenario and Its Implications for United States National Security. Available at: , last access March 2014.

SWIFT J., (1973). Disaster and a Sahelian nomad economy. In DALBY D., and CHURCH R., (eds.), (1973). *Drought in Africa: Report of the 1973 Symposium*. London: University of London: 71-78.

## T

TACCHI E.M., (2005). *Le istituzioni e l'informazione sui rischi naturali*. In LOMBARDI M., (2005). *La comunicazione dei rischi naturali*. Milano: Vita & Pensiero Edizioni.

TACOLI C., (2011). Crisis or adaptation? Migration and climate change in a context of high mobility. London: *Environment and Urbanization*. (21): 531-535.

TAGLIAPIETRA A., (2010). *Icone della fine. Immagini apocalittiche, filmografie, miti*. Bologna: Il Mulino Editore.

TAYLOR M., (2009). Displacing insecurity in a divided world: global security, international development and the endless accumulation of capital. London: *Third World Quarterly*. (30): 147-162.

TELLIS, W. (1997). "Introduction to case study". *The Qualitative Report*, 3 (2). Available at <http://www.nova.edu/ssss/QR/QR3-2/tellis1.html>. Last access June 2013.

TETI V., (2004). *Il Senso dei Luoghi*. Roma: Donzelli.

THEAU B., and VENIER P., (2002). *Kerala, la Force de l'Ambition*. Poitiers: Orcades.

THOMPSON S., and YAR M., (2011) *The politics of misrecognition*. Surrey: Ashgate.

THURLOW C., (2006). From Statistical Panic to Moral Panic: The Metadiscursive Construction and Popular Exaggeration of New Media Language in the Print Media. Washington D.C: *Journal of Computer-Mediated Communication* . 11 (2006) 667–701.

TOL R.S.J., FANKHAUSER S., and SMIT J.B. (1998). The scope for adaptation to climate change: what can we learn from the impact literature?. Exter: *Global Environmental Change*. 8 (2): 109-123.

TRIGLIA C., (1999). Capitale sociale e sviluppo locale. Bologna: *Stato e Mercato*. 3 (99).

TROLLDALEN, J., BIRKELAND N., J. BORGES and P. SCOTT, (1992). *Environmental refugees - a discussion paper*. Oslo: World Foundation for Environment and Development and the Norwegian Refugee Council.

TUCHMAN M. J., (1989). Redefining Security. Tampa: *Foreign Affairs*. (68): 78-112.

TURNER M. D. (1999). Conflict, environmental change, and social institutions in dryland Africa: Limitations of the community resource management approach. Huntsville: *Society and Natural Resources*. (12): 643-657.

TURNER, B.A. e PIDGEON, N.F., (2003). *Disastri*. Torino: Edizioni di Comunità.

## U

UN/ISDR, (2003). *Disaster Reduction and Sustainable Development*. Geneva: United Nations International Strategy for Disaster Reduction.

UNDP (2005). *Human Development Report 2005: International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World*. New York: United Nations Development Programme.

UNDP and UNICEF, (2002). *The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery*. Report Commissioned by UNDP and UNICEF. New York: United Nations Development Programme, United Nations Children's Fund.

UNDP, (2005). *Human Development Report 2005: International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World*. New York: United Nations Development Programme.

UNHCR, (1993). *The State of the World's Refugees: the challenge of protection*. Oxford: Oxford University Press.

UNHCR, (1996). *Environmental Guidelines*. Geneva: United Nations High Commissioner For Refugees.

UNHCR, (2000). *The State of the World's Refugees: Fifty Years of Humanitarian Action*. United Nations High Commissioner For Refugees. Oxford: Oxford University Press.

UNISDR, (2003). *Disaster Reduction and Sustainable Development*. Geneva: United Nations International Strategy for Disaster Reduction.

UNIVERSITÀ DI FIRENZE – DIPARTIMENTO SCIENZE DELLA TERRA, (2006). *“Analisi di dati telerilevati per l'emergenza connessa alla frana di Cerzeto (CS), rapporto n°5”*. Roma: Protez. Civile Nazion.

UNIVERSITY OF NEUCHATEL and IOM, (2012). *People on the move in a changing climate. A bibliography*. Geneva: International Organisation for Migration.

## V

VÁSQUEZ P., (2008). Between militarization and compassion. Disaster Victims Assistance Policies After the Tragedy. *The Chávez Effect*. Fall 2008.

VENTURINI T. et Al., (2012). Of Migrants and Words. A Web-Based Analysis of Online Debates on Migrations and Environment. Paris: *Cultures & Conflits*, 2012/4 (88): 133-156.

VICTOR J.C., (2009). *Les nouveaux réfugiés du climat*. Les dessous des cartes. Issy-les-Moulineaux: Arte France edition.

VIRILIO P., (2008). *L'Université du Désastre*. Paris: Galilée.

VISER S. A., (1972). *General Introduction in Kainji, a Nigeria Man Made Lake*. Ilorin: Kainji Studies One.

VOGT W., (1948). *Road to Survival*, New York: William Sloane Associates.

VOSS M., (2012). *Ambiente, disastri e catastrofi nel XXI secolo*. In RAGONE G., (ed), (2012). *Lo spettacolo della fine*. Milano: Guerini Scientifica.

## W

WALKER, B. H., LUDWIG D., HOLLING C.S., and PETERMAN R.M., (1981). Stability of SemiArid Savanna Grazing Systems. Manchester: *Journal of Ecology*. (69): 473-498.

WALKER, B., HOLLING C. S., CARPENTER S. R., and KINZIG A., (2004). Resilience, adaptability and transformability in social–ecological systems. Volfville: *Ecology and Society*. 9 (2): 5.

WARNER K., and LACZKO F., (2008). *Migration, Environment and Development: New Directions for Research*. In CHAMIE J., DALL'OGGIO L. (eds.), (2008): *International Migration and Development, Continuing the Dialogue: Legal and Policy Perspectives*. New York and Geneva: International Organization for Migration and Center for Migration Studies (CMS).

WATEAU F., (2010). *Contester un barrage : anthropologie d'un processus de gestion sociale à Alqueva (Portugal)*, in SCHNEIER-MADANES G., (ed.), (2010). *L'eau mondialisée : la gouvernance en question*. Paris: Editions La Découverte.

WB, (2004). *Involuntary Resettlement Sourcebook*. Washington D.C.: The World Bank

WEHLING P., (2006). The situated materiality of scientific practices: postconstructivism – a new theoretical perspective in science studies?. Edinburgh: *Science, Technology and Innovation Studies. Special Issue*. (1): 81-100.

WESTING, A. H., (1992). Environmental refugees: A growing category of displaced persons. Cambridge: *Environmental Conservation*. 19(3): 201–207.

WESTING, A.H., (1994). Population, desertification and migration. Cambridge: *Environmental Conservation*, 21(2):110– 114.

WIJKMAN A., and TIMBERLAKE L., (1984). *Natural disaster. Acts of God or acts of Man?* London: Earthscan.

WILLIAMS A., (2008). Turning the Tide: Recognising Climate Change Refugees in International Law. *Law and Policy*. (30): 502 – 505.

WILLIAMS R., (1974). *Television. Technology and cultural form*. London: Routledge.

WILSON K. M., (1995). Mass media as sources of global warming knowledge. London: *Mass Communication Review*. (22): 75–89.

WISNER B., BLAIKIE P., CANNON T., and DAVIS I., (2003). *At risk: natural hazard, people's vulnerability and disasters*, Geneva: UNDP, Routledge.

WIHTOL DE WENDEN C., (2013). *La question migratoire au XXI<sup>e</sup> siècle : Migrants, réfugiés et relations internationales* . Paris: Les Presses de Sciences Po.

WOODS J. and LEWIS (2005). *Human rights and the global market place: Economic, social, and cultural dimensions*. New York: Transnational/ Brill.

WOOLCOCK, M. 1998. Social capital and economic development: Toward a theoretical

synthesis and policy framework. The Hague: *Theory and Society*. (27):151-208.

## Y

YIN R. K., (1994). *Case Study Research. Design and Methods*, London: SAGE.

YIN R. K., (2009). *Case Study Research*. London:SAGE

## Z

ZBICZ D. C., (2009). *Asia's Future: Critical Thinking for a Changing Environment*. Washington, DC: Woodrow Wilson International Center for Scholars.

ZETTER R., (1991). Labelling Refugees: Forming and Transforming a Bureaucratic Identity. Oxford: *Journal of Refugee Studies*. 4 (1): 39–62.

ZETTER R., (2007). More Labels, Fewer Refugees: Remaking the Refugee Label in an Era of Globalization. Oxford: *Journal of Refugee Studies*, 20 (2): 172-192.

ZUBRYCKI K., CRAWFORD A., HOVE H., PARRY J.E., (2011). *Review of current and planned adaptation action: North Africa*. Geneva: International Institute for Sustainable Development.

## Web Sites

BBC, (2011). "News of West Africa". Available at: <http://www.bbc.co.uk/news/world-africa-12847408>, last access March 2014.

CLIMATE REFUGEE, (2010). Available at: <http://www.climaterefugees.com/>, last access February 2014.

CNR/ GNDCI, (2012). Available at: [http://avi.gndci.cnr.it/it/progetto/introprogetto\\_it.htm](http://avi.gndci.cnr.it/it/progetto/introprogetto_it.htm), last access October 2013.

COMUNE DI SARNO, (2012). Available at: <http://www.comune.sarno.sa.it/>, last access October 2013.

DAILYMOTION, (2011). Available at: : [http://www.dailymotion.com/video/x1f2f5n\\_tharparkar-people-displacement-due-to-worst-shortage-of-food\\_news?search\\_algo=2](http://www.dailymotion.com/video/x1f2f5n_tharparkar-people-displacement-due-to-worst-shortage-of-food_news?search_algo=2), last access March 2014.

DEVAST Project, (2012). Available at: <http://www.devast-project.org/>, last access February 2014.

EACH-FOR Project (2011). United Nations University Institute for Environment and Human Security (UNU-EHS), Bonn. Available at: <http://www.each-for.eu/index.php?module=main>, last access March 2014.

EKKLESIA, (2008). Available at: <http://www.ekklesia.co.uk/node/16690>, last access February 2014.

EMDAT, (2014). Available at: <http://www.emdat.be/>, last acces February 2014.

ENVIRONMENTAL SUSTAINABILITY INDEX, available at: <http://sedac.ciesin.columbia.edu/data/collection/esi/>, last access January 2014.

EU, (2008). *Climate Change and International Security*. Available at: [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/reports/99387.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/reports/99387.pdf).

EU, (2011). *Towards a renewed and strengthened EU climate diplomacy*. Available at: [http://eeas.europa.eu/environment/docs/2011\\_joint\\_paper\\_euclimate\\_diplomacy\\_en.pdf](http://eeas.europa.eu/environment/docs/2011_joint_paper_euclimate_diplomacy_en.pdf), last access April 2014.



EU, (2010). *The economics of climate change adaptation in EU coastal areas*. European Union available at: [http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/italy\\_climate\\_change\\_en.pdf](http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/italy_climate_change_en.pdf), last access February 2014.

EXCLIM, (2012). Gérer les déplacements des populations dues aux phénomènes climatiques extrêmes. Available at: <http://onerc.developpement-durable.gouv.fr/fr/projet/exclim-gerer-les-deplacements-des-populations-dues-aux-phenomenes-climatiques-extremes>, last access March 2014.

FILKR, (2012). Available at: <http://www.flickr.com/photos/iom-migration/6805854795/> and <http://www.flickr.com/photos/iom-migration/6805854795/>, last access February 2014.

FREEDOM HOUSE, (2013). “Italy”, available at: <http://www.freedomhouse.org/report/freedom-world/2013/italy#.UuemD-DX8y5>, last access January 2014.

GLOBOPIX, (2013). Available at: <http://viaggi.globopix.net/cartina/cartina-italia-fisica.jpg>, last access March 2013, scale 1: 450. 000.

GRID-ARENDAL, (2005). Available at: <http://www.grida.no/general/4700.aspx>, last access March 2014.

HUFFINGTONPOST, (2012). “Earthquake Scientists Jailed Over 'Inexact' Statements Preceding 2009 L'Aquila Quake”, available at: [http://www.huffingtonpost.com/2012/10/22/earthquake-scientists-jail-conviction-italy\\_n\\_2002848.html](http://www.huffingtonpost.com/2012/10/22/earthquake-scientists-jail-conviction-italy_n_2002848.html), last access January 2014.

IL QUOTIDIANO DELLA CALABRIA, (2006). “La frana di Cavallerizzo di Cerzeto”. <http://www.ilquotidianodellacalabria.it/gallery/720406/La-frana-di-Cavallerizzo-e-la.html>

IMDB, (2010). Available at: [http://www.imdb.com/title/tt1650404/?ref\\_=fn\\_al\\_tt\\_1](http://www.imdb.com/title/tt1650404/?ref_=fn_al_tt_1) and <http://www.imdb.com/title/tt1921116/> last access February 2014.

ITALIA DEI VALORI, (2012). Available at: [www.italiadeivalori.it](http://www.italiadeivalori.it), last access Octobre 2013.

ITALIAN MINISTER OF THE ENVIRONMENT AND THE PROTECTION OF TERRITORY AND OF THE SEA, (2007). Available at: <http://unfccc.int/resource/docs/natc/itanc4.pdf>, last access March 2014.

L'ESPRESSO, (2013). “*Frane, alluvioni, dissesto idrogeologico. I numeri che l'Italia deve cambiare*”, available at:

<http://espresso.repubblica.it/attualita/2013/11/19/news/frane-alluvioni-dissesto-idrogeologico-i-numeri-che-l-italia-deve-cambiare-1.141761>, last access January 2014.

LA REPUBBLICA, (2012). “*Balducci e i suoi amici, la cricca degli appalti. Ville, escort, assunzioni e auto di lusso*”, “La Repubblica” 11/02/2012, available at:

[http://www.repubblica.it/cronaca/2010/02/11/news/il\\_grande\\_regno\\_dell\\_emergenza\\_il\\_personaggio-2254417](http://www.repubblica.it/cronaca/2010/02/11/news/il_grande_regno_dell_emergenza_il_personaggio-2254417), last access January 2014.

LA REPUBBLICA, (2009). “*Gli scandali di Berlusconi alla prova del G8*”. Available at: [http://inchieste.repubblica.it/it/repubblica/rep-it/2012/01/18/news/processo\\_maddalena\\_g8\\_terremoto\\_1\\_aquila-28302134/](http://inchieste.repubblica.it/it/repubblica/rep-it/2012/01/18/news/processo_maddalena_g8_terremoto_1_aquila-28302134/), last access Octobre 2013.

LEGAMBIENTE, (2011). Ecosistema Rischio Dossier, Available at:

[http://www.legambiente.it/sites/default/files/docs/dossier\\_ecosistemarischio2011.pdf](http://www.legambiente.it/sites/default/files/docs/dossier_ecosistemarischio2011.pdf), last access October 2013.

MARGINAL TV, (2010). Available at: <http://www.marginal.tv/pages/projects.html>, last access February 2014.

MARTIN S. F., (2010). “Climate Change, Migration and Adaptation”. Available at <http://www.ehs.unu.edu/file/get/7106>, last access September 2013.

MINISTÈRE DE L'ÉCOLOGIE (2011). Available at: <http://www.developpement-durable.gouv.fr/Adaptation-in-France.html>, last access March 2014.

NATIONAL GEOGRAPHIC, (2011). “Japan Nuclear Zone”. Available at: <http://ngm.nationalgeographic.com/2011/12/japan-nuclear-zone/craft-text>, last access February 2014.

NATIONAL URBANIST INSTITUTE, ISTITUTO NAZIONALE DI URBANISTICA, (2012). Available at: <http://www.ance.it/docs/docDownload.aspx?id=8493>, last access October 2013.

NATURALMENTE ITALIANO (2013), Available at:

<http://www.naturalmenteitaliano.it/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/1136>, last access March 2013.

NUOVA CONSENZA, (2012). Available at: [www.nuovacosenza.com](http://www.nuovacosenza.com), last access October 2013.

PARLAMENTONEWS, (2013). “Il ciclone fa strage”, available at: <http://parlamentonews.com/2013/11/20/alluvione-in-sardegna-17-morti-letta-e-tragedia-nazionale-priorita-dispersi-e-sfollati-cdm-decide-stato-demergenza/>, last access January 2014.

PC, (2006). Available at: [http://www.protezionecivile.gov.it/jcms/en/view\\_gal.wp%3Bjsessionid=2EFAEE99C3F12A83488ACDED6838FC4D?facetNode\\_1=f2\\_8&prevPage=multimedia&numelem=6&contentId=GAL23110](http://www.protezionecivile.gov.it/jcms/en/view_gal.wp%3Bjsessionid=2EFAEE99C3F12A83488ACDED6838FC4D?facetNode_1=f2_8&prevPage=multimedia&numelem=6&contentId=GAL23110), last access January 2014.

PC, (2009). “Il progetto di ricostruzione”, Available at: [http://www.protezionecivile.gov.it/jcms/it/ricostruzione\\_cerzeto.wp%3Bjsessionid=4E4C95269A40C6E1FBE7431CF78A5AB8](http://www.protezionecivile.gov.it/jcms/it/ricostruzione_cerzeto.wp%3Bjsessionid=4E4C95269A40C6E1FBE7431CF78A5AB8)

PC, (2010). “Costo dei terremoti degli ultimi 40 anni”. Available at: [www.protezionecivile.gov.it/cms/attach/editor/sismicoappoggio/COSTO\\_TERREMOTI.it](http://www.protezionecivile.gov.it/cms/attach/editor/sismicoappoggio/COSTO_TERREMOTI.it), Last access March 2014.

RAINFALL, (2013). Available at: [http://www.carefrance.org/ressources/themas/1/3155,WTRF\\_Rapport\\_FR.pdf](http://www.carefrance.org/ressources/themas/1/3155,WTRF_Rapport_FR.pdf), last access March 2014.

RAITECHE, (1998). Available at: <http://www.teche.rai.it/decenni/00.html>, last access March 2014.

THE GUARDIAN, (2009). “Silvio Berlusconi wants G8 to be in earthquake-stricken city of L'Aquila”, *The Guardian*, available at: <http://www.theguardian.com/world/2009/apr/24/silvio-berlusconi-g8-laquila>, last access January 2014.

THE GUARDIAN, (2011). Available at: <http://www.guardian.co.uk/world/interactive/2011/aug/11/somali-refugee-dadaab-kenya>, last access February 2014.

THE GUARDIAN, (2012). “L'Aquila quake scientists: creating scapegoats will cost even more lives”, available at <http://www.theguardian.com/science/2012/oct/23/laquila-quake-scientists-scapegoats>, last access January 2014.

THE NOBEL FOUNDATION, (2007). Available at: [http://www.nobelprize.org/nobel\\_prizes/peace/laureates/2007/](http://www.nobelprize.org/nobel_prizes/peace/laureates/2007/), last access March 2014.

TUTTO CITTA, (2013). Available at: [www.tuttocitta.it](http://www.tuttocitta.it), last access October 2013.

UN Security Council, (2007). Available at:  
<http://www.un.org/News/Press/docs/2007/sc9000.doc.htm>, last access March 2014.

UNDESA, (2010). Recommendations on Statistics of International Migration. United Nations Department of Economic and Social Affairs. Available at:  
[http://www.unecce.org/fileadmin/DAM/stats/publications/International\\_Migration\\_Practical\\_Guide\\_ENG.pdf](http://www.unecce.org/fileadmin/DAM/stats/publications/International_Migration_Practical_Guide_ENG.pdf), last access March 2014.

UNDESA, (2012). Migrants by origin and destination: The role of South-South migration. Geneva: United Nations Department of Economic and Social Affairs. Available at: [http://www.un.org/esa/population/publications/popfacts/popfacts\\_2012-3\\_South-South\\_migration.pdf](http://www.un.org/esa/population/publications/popfacts/popfacts_2012-3_South-South_migration.pdf), last access March 2014.

UNHCR, (2010). Available at: <http://www.unhcr.se/fi/mitae-teemme/kestaevaet-ratkaisut/uudelleensijoittaminen/uudelleensijoittaminen-qa.html>, last access February 2014.

UNESCO, (2010). What is Intangible Culture Heritage?. Available at:  
<http://www.unesco.org/culture/ich/index.php?lg=en&pg=00002>, last access March 2014.

UNISDR, (2014). Available at: <http://www.unisdr.org/we/inform/disaster-statistics>, last access March 2014.

WIKIPEDIA, (2013). Available at:  
[http://en.wikipedia.org/wiki/Hurricane\\_Katrina\\_in\\_fiction](http://en.wikipedia.org/wiki/Hurricane_Katrina_in_fiction), last access February 2014.

WORLD ECONOMIC FORUM, (2014). Available at: [www.weforum.org](http://www.weforum.org), last access January 2014.

WORLD NUCLEAR FORUM, (2014): [www.world-nuclear.org](http://www.world-nuclear.org), last access January 2014.

YOUTUBE, (2008). Available at:  
<http://www.youtube.com/watch?v=0z9uQcw24Os&feature=plcp&list=PL4372512FA538FC39>, and <http://www.youtube.com/watch?v=H-Nix7q3Fqk> and  
<http://www.youtube.com/watch?v=UXxX6FeBh2c>, last access February 2014.

## Annexes

### Annex I: The questionnaire to individuals

<b>Background Information</b>	<i>Identity</i>	Sex Age Place of birth Administrative status
	<i>Origin and residence</i>	Place of residence Place of residence when the catastrophe occurred
	<i>Education/ Occupation</i>	Level of education Occupation
<b>Specific questions</b>	<i>Memory</i>	How do you remember the catastrophe? Do you know the cause of the catastrophe? What/Who provoked it?
	<i>Causes</i>	Do you know the cause of the catastrophe? What/Who provoked it? Which other factors beside natural ones enhanced the catastrophe?
	<i>Risk and vulnerability perception</i>	Did you perceive the danger, the risk of this catastrophe? Did you feel vulnerable?
	<i>Emergency strategies</i>	What did you do when the catastrophe occurred?
	<i>The rescues</i>	Who organised the rescues?
	<i>The sudden movement</i>	Did you go away? Did you flee? Why? Why, by contrary, you stayed? What did you think when you abandoned your house/ goods/cropland? What did you bring with you?
	<i>The choices</i>	If you moved for other reasons, which role had the catastrophe to determine your choice? Where did you go? Did "you" choose the destination? Did the choice was made by other component of your family? How did you choose your destination? Did you use your personal networks to organise the displacement?
	<i>The kind of displacement</i>	Was the displacement difficult for children, disables or elderly in your family? Did you displace temporary or definitively? Why did you come back? Have you been accompanied by institution in your displacement?
	<i>Perception</i>	How your life modified after the catastrophe?
	<i>Losses/compensation</i>	Which have been the loss or the effective damages to your goods? Have you been compensated?
	<i>Management</i>	Did you feel victim of an injustice? How the emergency was managed? And what about re-localisation?

Source: Personal elaboration.

## Annex II: The questionnaire to experts, association and authorities

<b>Background Information</b>	<i>Identity</i>	Body/Institution/Association Public/private institution Local/National/International Financing
	<i>Origin and residence</i>	Place of residence Place of residence when the catastrophe occurred
	<i>Education/ Occupation</i>	Level of education Occupation
<b>Specific questions</b>	<i>Prevention</i>	How was organised the prevention?
	<i>Emergency</i>	How was managed the emergency? Do you think the concerned actors were coordinate during the emergency and in post-traumatic period? Or there was insecurity and approximation?
	<i>The sudden movement</i>	How the concerned people react to the catastrophe? Where have they been displaced? How? Through which means and founds?
	<i>The rescues</i>	Who manage the rehabilitation of the concerned areas? Do the reconstruction have been immediate?
	<i>Post-catastrophic management</i>	Who coordinate the rescues? Who organised the structures to host the displaced population?
	<i>Compensation</i>	Do the compensation to the population have been fair?
	<i>Definition</i>	How would you define those populations?

*Source: Personal elaboration.*



**Annex III: Principal elements of comparison in the analysis**

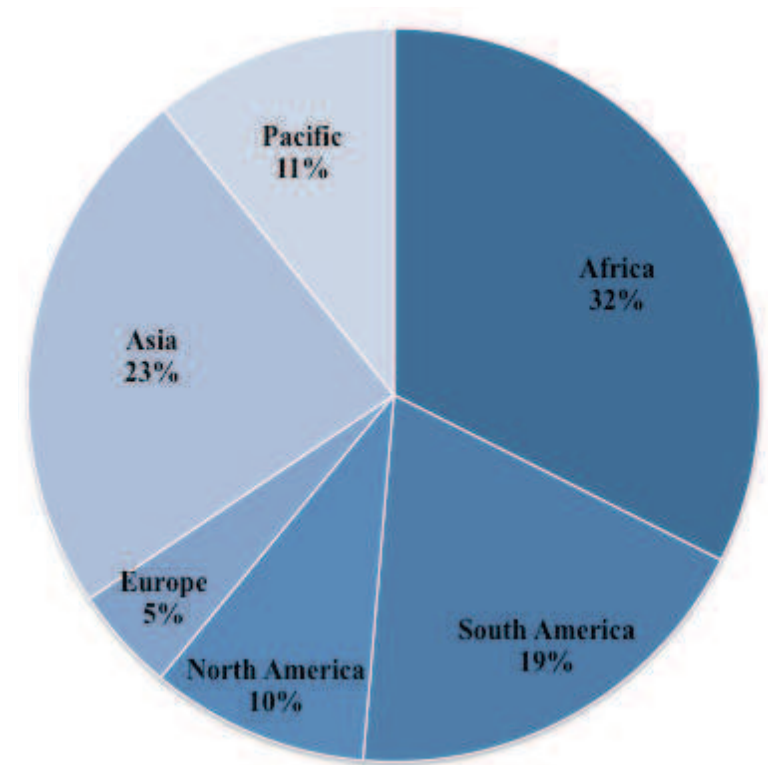
Sex	W (H)	W (G)	M (F)	M (E)	W (D)	W(C)	W (B)	M (A)
Age	65	62	50	65	65	60	27	40
Location before	Samo, Episcopio district	Samo, Episcopio district	Samo, Episcopio district	Samo, Episcopio district	Samo, Episcopio district	Samo, Episcopio district	Samo, Viale Margherita	Samo, Episcopio district
Actual Profession	Housewife	Housewife	Employee	Office manager	Housewife	Retired	Journalist	Teacher
Profession before	Housewife	Housewife	Employee	Office manager	Housewife	Teacher	Student	Teacher
Risk and vulnerability	No	No	No	No	No	Yes	No	No
Causes	Natural and Anthropic	Natural	Anthropic	Anthropic	Natural	Natural and Anthropic	Anthropic	Anthropic
Rescues	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Kind of displacement on the long term	Definitive	Temporary	Temporary	Definitive	Definitive	Definitive	Temporary	Definitive
Compensation	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Resettlement	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Material impact	Lost everything	Lost everything	Lost everything	Lost everything	Lost everything	Lost everything	Lost everything	Lost everything
Moral and membership impact	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative

Sex	M(S)	M(R)	M(Q)	M(P)	M(O)	W(L)	M(K)	W(J)	M(I)
Age	65	24	43	87	45	40	31	43	67
Location before	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Samo, Episcopio district	Via Pedagnali	Samo, Episcopio district
Actual Profession	Farmer	Student	Pizzeria owner	Retired	Employee	Café owner	Student	Housewife	Grocery store owner
Profession before	Retired	Electrician	Pizzeria owner	Retired	Employee	Café owner	Student	Housewife	Grocery store owner
Risk and vulnerability	No	No	No	No	Yes	Yes	No	No	No
Causes	Natural	Natural	Natural	Natural	Natural	Natural	Natural and Anthropic	Anthropic	Anthropic
Rescues	Positive	Positive	Positive	Positive	Positive	Positive	Negative	Negative	Negative
Kind of displacement on the long term	Definitive	Definitive	Definitive	Definitive	Definitive	Definitive	Temporary	Temporary	Definitive
Compensation	Negative but better than other	Positive	Positive	Positive	Negative	Positive	Negative	Negative	Negative
Resettlement	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Negative
Material impact	Lost everything	Lost part	Lost everything	Lost everything	Lost part	Lost part	Lost everything	Lost everything	Lost everything
Moral and membership impact	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Negative

Source: Personal elaboration.

Sex	M (Y)	W (X)	W (V)	W (U)	M (T)
Age	58	67	56	27	76
Location before	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district	Cerzeto, Cavallerizzo district
Actual Profession	Employee	Housewife	Grocery store owner	Employee	Farmer
Profession before	Employee	Housewife	Grocery store owner	Employee	Retired
Risk and vulnerability	Yes	No	No	No	No
Causes	Natural	Natural	Anthropic	Anthropic	Natural
Rescues	Positive	Positive	Positive	Positive	Positive
Kind of displacement on the long term	Definitive	Definitive	Definitive	Definitive	Definitive
Compensation	Positive	Negative but better than other	Positive	Negative but better than other	Negative but better than other
Resettlement	Positive	Negative	Negative	Negative	Negative
Material impact	Lost part	Lost everything	Lost everything	Lost part	Lost everything
Moral and membership impact	Positive	Negative	Negative	Negative	Negative

**Annex IV: Percentual continental distribution of 259 case studies concerning environmentally induced displacements (1973-2012)**



*Personal elaboration from UNIVERSITY OF NEUCHATEL and IOM (2012: 25-43).*

## Tables of illustrations

### Index of maps

Map 1: Localisation of the observatory fieldwork sites .....	47
Map 2: Italian catastrophes mentioned in this thesis .....	56
Map 3: The map of Italian hydrogeological critical state* .....	64
Map 4: Location map of Sarno, affected by the May 1998 event .....	134
Map 5: Geo-localisation of Cerzeto, affected by the March 2005 event.....	137
Map 6: Thesis' relevant places in Sarno .....	153
Map 7: The Cerzeto reconstruction project in Pianette site.....	166
Map 8: Localisation of Cerzeto (new and old settlements) .....	169
Map 9: Fifty million climate refugees by 2010 .....	297
Map 10: The global distribution of case studies (2012) .....	301
Map 11: Origin and destination countries and regions examined (2014).....	303
Map 12: Security risks associated with climate change .....	311

### Index of figures

Figure 1: "I prayed God and I got saved" .....	89
Figure 2: The press and the waste crisis in Naples .....	99
Figure 3: The use of photography in press in the description of a catastrophe .....	100
Figure 4: "The State is here" .....	102
Figure 5: "Deaths, pain and forgotten laws" .....	103
Figure 6: "Ruins and death in Abruzzo".....	104
Figure 7: "We are all with you".....	105
Figure 8: "Abruzzo Calvary" .....	106
Figure 9: The victims of the earthquake .....	107
Figure 10: The bodies .....	108
Figure 11: Obama and Berlusconi among the ruins .....	114
Figure 12: The mud Apocalypse.....	176
Figure 13: Institutional fault .....	177
Figure 14: "Tears and hugs during the evacuation" .....	178
Figure 15: The depositions of the survivors in Sarno.....	179

Figure 16: Survivors vs dead people in Sarno.....	180
Figure 17: The faith of the survivor .....	181
Figure 18: The rescues in Sarno on TV .....	182
Figure 19: Too much delay, the Government and the Region under accusation .....	183
Figure 20: The representation of the helpers and the helped in Sarno .....	183
Figure 21: The authorities and the catastrophe in Sarno .....	184
Figure 22: “The South crumbles” .....	185
Figure 23: The institutions visit Via degli Emigranti in Cerzeto .....	186
Figure 24: The offered Christmas tree to the resettled community .....	187
Figure 25: The inauguration of the new houses in the “new” Cerzeto.....	188
Figure 26: The accusations and the indignation in Sarno.....	189
Figure 27: The institutions’ bad taste .....	190
Figure 28: Cerzeto as L’Aquila .....	190
Figure 29: “Less power to Bertolaso” .....	191
Figure 30: Against the New Town .....	192
Figure 31: The sentence.....	193
Figure 32: The “angels” against the “massacre” in Sarno.....	194
Figure 33: The churches as a safe place .....	195
Figure 34: The bishop as a moderator in Cerzeto.....	195
Figure 35: “What being a village ‘without’ means” .....	224
Figure 36: “In the new houses no gjitonje” .....	226
Figure 37: “Why the reconstruction (in Sarno) does not start?” .....	229
Figure 38: “The structural interventions (in Sarno) ‘are being constructed’” .....	235
Figure 39: The resistant .....	239
Figure 40: Images from a documentary on Tuvalu (2010).....	284
Figure 41: Bring on screen environmentally induced displacements issue. The documentaries and reportages .....	285
Figure 42: The French daily “Le Monde” provides estimations about the number of environmental induced displaced .....	289
Figure 43: The saviour of Tuvalu.....	316
Figure 44: “Helping Tuvalu!” .....	317
Figure 45: A “a civilised” country?.....	318

## Index of tables

Table 1: Human consequences of hydrogeological events along the history in Italy .....	58
Table 2: A synthetic table on hydrogeological hazard damages and losses in Italy.....	69
Table 3: A synthetic description of the Italian legal frame shaped on catastrophes.....	84
Table 4: “Second hand” data used in the research according to their nature, the providing institution and location .....	123
Table 5: The interviews .....	124
Table 6: Sarno and Cerzeto’s sample by sex and age.....	125
Table 7: Sarno and Cerzeto’s associations sample .....	126
Table 8: Sarno and Cerzeto’s experts sample.....	128
Table 9: Sarno and Cerzeto’s authorities sample .....	129
Table 10: Phases of the interaction with the “Individuals” .....	132
Table 11: Operational bodies, men and means involved in the response action from 2 to 17 days after the landslide .....	147
Table 12: People affected by evacuation and accommodation plans for the first weeks ...	149
Table 13: People in Sarno recoverd in Reception Centres .....	151
Table 14: Degree of mobility/immobility in the aftermath of the landslide.....	155
Table 15: The medium-term displacement according to the mobilised network .....	157
Table 16: Long-term displacement according to the distance from Sarno .....	159
Table 17: The displacement according to the mobilised capital.....	162
Table 18: Synthesis of the typologies of capitals mobilised in the medium-term.....	164
Table 19: Sample of newspapers and TVs used in this study.....	174
Table 20: Summary of the analysed perception .....	215
Table 21: Decree n. 2787/1998, economic implications of the compensation.....	230
Table 22: Classification of adaptation options .....	252
Table 23: Facts, estimations and predictions of environmentally induced displacements .	295

## Index of graphs

Graph 1: The social causation of catastrophes .....	32
Graph 2: The phases of the research.....	39
Graph 3: Number of victims in Sarno by age and sex.....	143
Graph 4: Trapped population.....	257



Graph 5: Evolution of the searched keywords, linked to the environmental degradation and mobility nexus .....	278
Graph 6: The web queries about the different definitions of environmentally induced displacements (2012) and their connexion .....	280
Graph 7: Number and timestamp of case-study publications concerning the environmentally induced displacements at global level (1998-2012) .....	299
Graph 8: Number and timestamp of case studies in environmentally induced displacement field concerning the Global North according (1998-2012) .....	300
Graph 9: Number of publications concerning the security issue in the literature review provided by the University of Neuchâtel (1983-2011).....	323
Graph 10: Summary of the global different approach and its consequences at global level .....	336

## **Index of drawings**

Drawing 1: The rain.....	136
Drawing 2: The landslide .....	142
Drawing 3: The ruins.....	144
Drawing 4: The rescues .....	147
Drawing 5: The getaway .....	154
Drawing 6: Between the roofs.....	205
Drawing 7: The crucial directions .....	206
Drawing 8: The black sheet.....	207
Drawing 9: The family .....	208
Drawing 10: The window .....	209
Drawing 11: The mud.....	209
Drawing 12: The event succession .....	210

## **Index of photos**

Photo 1: Berlusconi between the ruins .....	112
Photo 2: The Emigrates' Road after the landslide.....	137
Photo 3: The Municipality welcome road sign.....	139
Photo 4: Area of impact of the mudflow in Sarno on May the 5 <sup>th</sup> 1998 .....	141
Photo 5: The Cerzeto landslide in the Cavallerizzo district .....	145
Photo 6: The camp in the local primary school.....	161

Photo 7: The Head of PC visiting the New Town .....	167
Photo 8: The abandoned delicatessen .....	168
Photo 9: The Villa Malta hospital in 2012.....	197
Photo 10: Sarno's "5th May victims monument" .....	199
Photo 11: The sport association's memorial.....	200
Photo 12: The main square of the town renamed to commemorate the victims.....	201
Photo 13: The old settlement of Cerzeto encumbering over the new one .....	202
Photo 14: The abandoned school bus in Cerzeto.....	202
Photo 15: The agenda of 1998 .....	203
Photo 16: The "new" oak among the "new" buildings in Sarno .....	223
Photo 17: The café of the "new" Cerzeto: the "New Life Café" .....	225
Photo 18: Housing projects in Via Episcopio, under construction.....	233
Photo 19: A building in Via Pedagnali (2012) .....	234
Photo 20: The new settlement in Pianette.....	236
Photo 21: The new settlement of Cerzeto.....	237
Photo 22: Houses in Pianette .....	238
Photo 23: The new buildings in the "new" Aquila.....	263
Photo 24: The new buildings in Monterusciello after the Pozzuoli bradyseism .....	263

# Table of contents

<b>Acknowledgements .....</b>	<b>5</b>
<b>Summary .....</b>	<b>7</b>
<b>Foreword .....</b>	<b>8</b>
<b>General Introduction.....</b>	<b>11</b>
The thesis' statements.....	12
The theoretical framework .....	13
The novelty of the research .....	14
The structure .....	17
<b>I. Research design, key concepts and general methodology .....</b>	<b>21</b>
<b>Introduction.....</b>	<b>21</b>
<b>I.1 The conceptual framework.....</b>	<b>23</b>
Introduction.....	23
I.1.a A post-constructivist approach to political ecology .....	23
The importance of “gaps” in knowledge production.....	24
Interpreting nature, science and politics .....	25
I.1.b The thesis' key concepts: definition and discussion .....	27
The environmentally induced displacement.....	27
a. The origin of the terms.....	27
b. Environemntal degradation and mobility nexus: a growing “insecurity”.....	28
c. The recent debate .....	29
d. A fashionable definition? .....	30
Disaster or catastrophes? The meaning of the debate.....	31
a. The “unnaturality” of catastrophes .....	31
b. The different components of the catastrophes .....	32
Vulnerability, a human construction? .....	33
a. The different definitions of vulnerability.....	33
b. The social and political determinants of vulnerability.....	34
I.1.c The research hypotheses and their framework .....	35
<b>I. 2 A qualitative methodology.....</b>	<b>37</b>
Introduction.....	37
I.2.a An empirical approach.....	38
The protocol of the research .....	38
The empirical observation.....	39

The data collection .....	40
The empirical investigation tools .....	41
I.2.b The choice of Italy .....	42
Insider or outsider? This is the question .....	43
I.2.c The choice of the empirical examples .....	44
Fieldwork specificities and difficulties .....	48
Conclusion to part I .....	50
<b>II. “Natural” disasters in Italy? .....</b>	<b>52</b>
Introduction .....	52
<b>II.1 Italian catastrophes: an inappropriate legal framework? .....</b>	<b>54</b>
Introduction .....	54
II.1.a Vulnerability in the Italian context .....	55
The Italian history of mobility .....	57
The Italian vulnerability .....	59
Changes in agricultural patterns and urbanisation .....	60
Environmental degradation and resource depletion .....	62
When social and environmental factors cross .....	64
II.1.b Counting damages, counting losses .....	66
The costs of the catastrophes .....	67
An on-going perspective .....	68
A lack of adequate measures? .....	70
II.1.c The legal framework .....	71
Managing the displacement in Italy .....	72
The actors of the risk management .....	74
a. The local, regional and national authorities .....	75
b. The National Civil Protection .....	76
c. The volunteers .....	78
Hydrogeological hazard: an historical perspective .....	78
The hydrogeological risk management .....	80
An ad hoc normative framework? .....	82
<b>II.2 How nature shapes culture and language .....</b>	<b>86</b>
Introduction .....	86
II.2.a A collective imaginary anchored in fatalism .....	88
The fatalism .....	89
A blaming attitude .....	90
A “catastrophic” misculture? .....	91
The environmentally-friendly attitude .....	93
The privatisation of fear .....	94

II.2.b The language of media about emergencies .....	95
<b>The importance of media in the Italian panorama</b> .....	95
<b>Empirical examples of the media “spectacularisation”</b> .....	96
a. The crisis of waste in Naples: a submerged city (2008-2010) .....	97
b. The Emilia Romagna earthquake (2012): between propaganda and polemics .....	99
c. The L’Aquila earthquake (2009): the media and the representation of the death .....	101
<b>The semantic of the catastrophes</b> .....	108
II.2.c National authorities and catastrophes .....	109
<b>The management in the aftermath of the event</b> .....	110
<b>The attitude of Italian authorities facing catastrophes</b> .....	110
<b>The state of emergency</b> .....	112
<b>The political show</b> .....	113
<b>The language of the authorities</b> .....	115
<b>Conclusion to part II</b> .....	117
<b>III. An empirical approach: observations from Sarno and Cerzeto</b> .....	119
<b>Introduction</b> .....	119
<b>III.1 The steps of the research process</b> .....	121
Introduction .....	121
III.1.a “First” and “second hand” data .....	121
III.1.b The sample of the interviewees .....	124
<b>The categories of interviewees</b> .....	125
a. Individuals .....	125
b. Associations .....	126
c. Experts .....	128
d. Authorities .....	129
<b>The methods and the data collected according to the category</b> .....	130
<b>III.2 The two landslides and their consequent mobility</b> .....	133
Introduction .....	133
III.2.a The backgrounds and the catastrophic events .....	133
<b>The contexts</b> .....	133
a. In Sarno .....	133
b. In Cerzeto .....	136
<b>The landslides</b> .....	140
a. In Sarno .....	140
b. In Cerzeto .....	144
<b>The rescues</b> .....	146
a. In Sarno .....	146
b. In Cerzeto .....	148

III.2.b The landslide induced mobility in Sarno.....	148
<b>The short-term displacement: fleeing or staying?</b> .....	148
a. The “autonomous” accommodation.....	149
b. The “Accoglinfamiglia” project .....	149
c. The reception centres .....	150
<b>The medium-term displacement</b> .....	156
<b>The long-term displacement</b> .....	158
III.2.c The forced resettlement in Cerzeto.....	160
<b>The displacement in the immediate aftermath</b> .....	161
<b>The medium-term displacement</b> .....	163
<b>The relocation in Pianette</b> .....	164
<b>III. 3 The representations of the landslides</b> .....	<b>172</b>
Introduction .....	172
III.3.a The media representation.....	173
<b>About the catastrophe in itself</b> .....	175
a. In Sarno .....	175
b. In Cerzeto.....	177
<b>About the process of victimisation</b> .....	179
<b>About the rescues and the presence of the State</b> .....	181
a. In Sarno .....	182
b. In Cerzeto.....	185
<b>About the blaming process</b> .....	188
a. In Sarno .....	188
b. In Cerzeto.....	189
<b>About fatalism and religious beliefs</b> .....	194
III.3.b Making the memory a cultural heritage .....	196
<b>The collective memorialisation</b> .....	196
a. In Sarno .....	197
b. In Cerzeto.....	201
III.3.c The personal memorialisation .....	203
<b>The mental maps</b> .....	204
<b>III. 4 The perceptions about the impacts of the two catastrophes</b> .....	<b>214</b>
Introduction .....	214
III.4.a About the causes of the landslides and the vulnerability.....	216
<b>The causes of the landslides</b> .....	217
<b>The vulnerability</b> .....	219
III.4.b About the losses.....	220
<b>The material losses</b> .....	221

The immaterial losses .....	223
The psychosocial impacts and effects on social cohesion .....	225
In a nutshell .....	227
III.4.c About the political response.....	228
The emergency management .....	228
The compensation .....	229
The displacement .....	231
The rehabilitation .....	232
To conclude.....	240
<b>Conclusion to part III.....</b>	<b>243</b>
<b>IV. A discourse rooted into a political agenda .....</b>	<b>245</b>
Introduction.....	245
<b>IV.1 Different definitions for the same phenomena.....</b>	<b>248</b>
Introduction.....	248
A poor conceptualisation? .....	248
IV.1.a Environmentally induced displacement: a form of adaptation? .....	250
A recommended option for the Global South? .....	250
A denied strategy for the Global North? .....	254
Observation from the Italian examples .....	255
Different options for different geographical areas? .....	258
IV.1.b Environmentally induced resettlement: a planned choice? .....	259
Resettlement and catastrophes .....	260
A traditional option for infrastructural projects in the Global South and in the Global North .....	260
The social impacts of resettlements .....	264
The economic impacts of resettlement .....	265
A different geometry of power .....	268
IV.1.c The vocabulary about the displaced and the resettled .....	269
Words to explain, words to complain.....	269
A Global North based approach? .....	272
<b>IV.2 Three components of the representation.....</b>	<b>275</b>
Introduction.....	275
IV.2.a An increasing attention on the phenomenon?.....	276
The web .....	277
The press .....	280
The images .....	281
The other sources .....	283
The process of spectacularisation .....	287
IV.2.b Flow estimations and predictions: do numbers matter? .....	288



From statistics to moral panic .....	288
The first predictions about displacements .....	291
The second generation of predictions .....	292
The last predictions .....	292
An impressive escalation .....	293
IV.2.c Few empirical studies in the Global North? .....	298
The evolution of the case studies concening environmentally induced displacements .....	298
Mapping case studies .....	300
A one-sided coin approach to the phenomenon? .....	303
<b>IV.3 The misrecognition: a political design? .....</b>	<b>306</b>
Introduction .....	306
An un-objective rhetoric? .....	307
IV.3.a From determinism to risk society? .....	308
A “primitive” form of mobility? .....	308
A “natural” destination? .....	309
From the first approach about environmentally induced displacement destinations .....	311
...To the second one .....	313
Eco-imperialism? .....	314
IV.3.b Protection or fear? .....	319
Environmental degradation: menace or myth? .....	320
The presumed security implications .....	321
The States’ preoccupation .....	322
Different concerns? .....	324
<b>Conclusion to part IV .....</b>	<b>328</b>
<b>General Conclusion .....</b>	<b>330</b>
Maximisation and minimisation: a political agenda? .....	330
Between scapegoats, fatalism and media shows: a politicisation of the environmental issue in Italy? .....	331
The consequences of the denial: .....	332
a. An increased vulnerability? .....	333
b. An unsafer the word? .....	334
c. More inequalities and less communities’ cohesion? .....	335
The environment as an alibi? .....	337
The alienation from nature in the Global North? .....	338
Epilogues and possible future researches .....	340
<b>Table of abbreviations.....</b>	<b>342</b>
<b>Bibliography.....</b>	<b>344</b>

<b>Web Sites .....</b>	<b>381</b>
<b>Annexes.....</b>	<b>386</b>
Annex I: The questionnaire to individuals.....	386
Annex II: The questionnaire to experts, association and authorities .....	387
Annex III: Principal elements of comparison in the analysis .....	388
Annex IV: Percentual continental distribution of 259 case studies concerning environmentally induced displacements (1973-2012).....	391
<b>Tables of illustrations .....</b>	<b>392</b>
Index of maps .....	392
Index of figures.....	392
Index of tables.....	394
Index of graphs .....	394
Index of drawings .....	395
Index of photos .....	395
<b>Table of contents .....</b>	<b>397</b>





## Abstract

This research investigates how the environmentally induced displacement phenomenon is perceived in the Global North on the basis of the evidence gathered in two Italian catastrophes. An analysis on the environmental resources management and the vulnerability in Italy has been associated with a study over media coverage, political discourses and personal experiences about environmentally induced displacements following the two landslides in Sarno (1998) and Cerketo (2005), highlighting the limits of the use of this concept. Moreover, this research illustrated how, contrarily to the current debate, the phenomenon is likely to occur both in the Global North and Global South contexts. The theoretical, political and media discourses and representations seem to be, in fact, mostly focused on specific geographical areas of the Global South. The motivations behind these different descriptions and narratives on the same concept are investigated, through geographical and political science tools. The findings of this research reveal a political agenda exploiting the debate to reinforce the power unbalance within the Global North and between the Global North and the Global South.

*Key words: Global North, Italy, Sarno, Cerketo, landslides, environmentally induced displacements, vulnerability, catastrophe, media coverage, political discourse.*

## Resumé

Cette recherche interroge la perception du phénomène des déplacés environnementaux dans les pays industrialisés à partir de l'observation de deux catastrophes en Italie. L'analyse de la gestion environnementale et de la vulnérabilité dans le contexte italien, ainsi qu'une étude qualitative sur la couverture médiatique, les discours politiques et le vécu des déplacements environnementaux causés par deux coulées de boue à Sarno (en 1998) et à Cerketo (en 2005), ont révélé les limites de l'usage de ce concept. De plus, cette recherche a montré que ces déplacements se produisent également dans des pays industrialisés, contrairement aux débats théoriques, aux discours politiques et aux représentations médiatiques actuels, qui se focalisent sur les contextes géographiques spécifiques des pays en développement. Les raisons expliquant les différences dans les discours sur ce même phénomène sont ici enquêtées, avec des instruments propres à la géographie et à la science politique. Les résultats de l'analyse révèlent un dessein politique qui vise à instrumentaliser le débat dans le but de renforcer le déséquilibre des pouvoirs politiques dans les pays industrialisés et entre ces derniers et les pays en développement.

*Mots clés : Pays industrialisés, Italie, Sarno, Cerketo, coulées de boue, déplacés environnementaux, vulnérabilité, catastrophe, couverture médiatique, discours politique.*

## Riassunto

La presente ricerca analizza la percezione del fenomeno dei profughi ambientali nei Paesi del Nord a partire dall'osservazione di due casi italiani. L'analisi della gestione ambientale e della vulnerabilità in Italia, associata ad uno studio qualitativo sul trattamento mediatico, i discorsi politici e l'esperienza personale inerente al fenomeno dei profughi ambientali causati dalle frane di Sarno (1998) e Cerketo (2005), ha messo in evidenza i limiti della definizione di questo concetto. Inoltre, lo studio dimostra in che modo il fenomeno si produca anche nel Nord del Mondo, contrariamente al dibattito teorico, ai discorsi politici e alle rappresentazioni mediatiche correnti che tendono a focalizzarsi su specifiche aree geografiche del Sud, utilizzando una narrativa mono-causale e deterministica. Le motivazioni che spiegano le diverse concettualizzazioni di uno stesso fenomeno sono qui analizzate, attraverso degli strumenti propri alla geografia e alla scienza politica. I risultati di questo studio rivelano un disegno politico che mira a strumentalizzare il dibattito in modo da rinforzare l'asimmetria di potere nei Paesi del Nord e tra questi e i Paesi del Sud.

*Parole chiave: Nord del Mondo, Italia, Sarno, Cerketo, frane, profughi ambientali, vulnerabilità, catastrofismo, trattamento mediatico, discorso politico.*