

# Natural Disasters & Property Rights



**Theory, Dutch NGO practice and recommended strategies**

**Menno de Vries**

**87 09 05 916 010**

**August 2010**

**18 ECTS**



**RDS-80718**

**Thesis Disaster  
Studies**

*supervisor:*

**Jeroen Warner**



## Table of Contents

1.	Introduction.....	4
1.1.	Introduction.....	4
1.2.	Aim and methodology .....	4
1.3.	Structure of the paper.....	5
2.	Background.....	6
2.1.	Natural hazards and disasters.....	6
2.2.	Disaster management and development .....	6
2.3.	Property rights and development .....	7
2.4.	Development policy.....	7
2.5.	Conceptual framework.....	<b>Error! Bookmark not defined.</b>
2.6.	Key concepts.....	8
3.	Property rights and disaster.....	12
3.1.	Case of Aceh .....	12
3.1.1.	Disaster Risk Reduction-phase.....	12
3.1.2.	Emergency Response-phase .....	13
3.1.3.	Recovery-phase .....	14
3.2.	Case of pastoralists in Sudan .....	15
3.2.1.	Disaster Risk Reduction-phase.....	16
3.2.2.	Emergency Response Phase .....	17
3.2.3.	Recovery Phase .....	17
4.	Dutch developmental/relief organisations and property rights .....	20
4.1.	Perceived importance of property rights.....	20
4.2.	Perceived root causes .....	20
4.3.	Desired change.....	20
4.4.	Dealing with property rights in DRM.....	21
4.4.1.	ZOA Vluchtelingen zorg .....	21
4.4.2.	Dutch Red Cross.....	21
4.4.3.	CordAid .....	21
5.	Recommended strategies.....	23
5.1.	Changes in governance .....	23
5.2.	Organisational changes within the UN .....	23
5.3.	Developing protocols .....	24
5.4.	International Standards .....	24
5.5.	Land mapping and titling.....	24
5.6.	Lobby and advocacy .....	25
5.7.	Civil society .....	25
6.	Conclusions and recommendations.....	26
7.	Acknowledgements .....	28
8.	References.....	28
8.1.	Literature.....	28
8.2.	Interviews.....	32

## Acronyms

CRED	Centre for Research on the Epidemiology of Disasters
CBDRM	Community-Based Disaster Risk Management
CLEP	Commission on the Legal Empowerment of the Poor
DRM	Disaster Risk Management
DRMC	Disaster Risk Management Cycle
DRMF	Disaster Risk Management Framework
DRR	Disaster Risk Reduction
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GoI	Government of Indonesia
GoS	Government of Sudan
HFA	Hyogo Framework for Action
HLP	Housing, Land and Property
IDNDR	International Decade for Natural Disaster Reduction
IDP	Internally Displaced Person
NGO	Non Governmental Organisation
SLAF	Sustainable Livelihoods Analytical Framework
SHO	Samenwerkende Hulp Organisaties
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNISDR	United Nations International Strategy for Disaster Reduction
WCDR	World Conference on Disaster Reduction

# 1. Introduction

## 1.1. Introduction

Farah Karimi, the director of the Samenwerkende Hulp Organisaties (SHO), a collective noun for 10 Dutch aid agencies who cooperate during "large" disasters, stated in Dutch written media that "Especially during reconstruction the government should play a very important role. But in Haiti the government does not take its responsibility. For example, to remove the debris, they must allocate land to remove it to. Because as long as the debris are not removed, we cannot start building new houses. An additional difficulty in Haiti is that the terrains are often privately owned and it is unclear who owns it."<sup>1</sup> (ANP, 2010). Not only in the case of post-earthquake Haiti problems with recovery and reconstruction occurred due to property right issues. Also after the Indian Ocean tsunami, many scholars reported land theft, loss of official tenural documents, inheritance conflicts and resource conflicts after relocation (Leckie, 2007; Williams, 2006 and Fitzpatrick, 2005).

So, apparently, in order to execute disaster relief efforts, organisations have to deal with problems concerning property rights. This raises questions about the exact role of the government, institutions and NGOs, dealing with property rights after a disaster. And on how exactly natural disasters change property rights regimes? And the other way around? Do property right regimes shape the outcomes of a natural disaster?

According to Brown, Crawford and Hamill (2006:23) this is the case and property rights are important in a "pre-disaster" situation, because "it is evident, that clear, equitable and enforced resource rights can help strengthen resilience to natural disasters. Often, but not always, such resource rights can encourage the sustainable use of common resources and investment in protective barriers." So, in their view all sorts of property regimes can shape the way natural resources are used and managed, which has an effect on the buffering capacity of the resource (e.g. mangrove forest) towards a disaster.

These authors also acknowledge that "the relationship between resource rights and resilience to natural disaster has yet to be fully understood" and plead to investigate the question whether resource rights can be integrated in disaster risk reduction plans and disaster relief (Brown, Crawford and Hamill, 2006: 23). This plea is supported by the following argument: "Experience shows that resource rights are a key element of both disaster risk reduction and humanitarian relief but there is a real need to understand how considerations of resource rights can be integrated in practical terms into donor and government risk reduction plans and humanitarian responses." (Brown, Crawford and Hamill, 2006:24).

## 1.2. Aim and methodology

Following the statements of Brown, Crawford and Hamill (2006) this paper tries to unravel the relationship between natural disasters and property rights.

Firstly by investigating two completely different natural disasters, namely the effects of the 2004 Indian Ocean Tsunami on the Acehnese population and the effects of the 1980's drought on pastoralists in the Sudan. Therefore literature about the disasters and property rights within these contexts were investigated, these were peer-reviewed articles as well as working papers for NGOs. The outcomes are the effects of the property right regimes on vulnerabilities and capacities of people to a natural disaster, as well before as after a natural disaster. Meanwhile minding the gap between the formal law (*de jure*) and daily practice (*de facto*), by using the division proposed by von Benda - Beckmann (2006) of different investigational levels: ideology, legal institutions, social relations and daily practice.

The second aim is to give more insight in how Dutch NGOs are perceiving and dealing with issues surrounding property rights. This was done by keeping semi-structured interviews with

---

<sup>1</sup> Translation from Dutch by author

representatives of the organizations. The first interview was with John Buijs, a desk officer on emergency relief from ZOA. The second interview was with Eelko Brouwer, a disaster management advisor and international relief coordinator from the Dutch Red Cross. The last and third interview was held with Gijs Aarts, a project officer on emergency relief and recovery from CordAid. The third and last aim is to show which solutions, aside those of the Dutch NGOs, were recommended by other organization or experts, in order to incorporate issues surrounding property rights better in the efforts to manage natural disasters. This was done by reading different technical papers, developed protocols and recommendations of scholars in articles. This is concluded with a reflection on these solutions.

### *1.3. Structure of the paper*

The general structure is that the three aims are reflected in the fact that this paper is divided in three parts. To maintain this structure after every part a “recap” is given to summarize and to reflect on the results of the three parts of the paper. This paragraph serves also to look at implications of the results. Thus no separate chapter “Discussion” is devoted to achieve these purpose.

Further the paper is structured as follows; a background is given in Chapter 2, to frame the parts presented in this paper in a broader context of academic theory, developmental policy and to clarify different concepts used in this paper. Chapter 3 deals with the relationships between property rights and resilience to natural disasters, by analysing two natural disasters, different in origin, time span and effect. Therefore this chapter is divided in two, the case of Aceh described in Paragraph 3.1 and the case of pastoralists in Sudan described in Paragraph 3.2. Chapter 4 describes the perceptions and strategies of three Dutch humanitarian/developmental organizations on property rights issues, based on semi-structured interviews. Chapter 5 as much strategies, to incorporate property rights issues in Disaster Risk Management recommended by experts and organization, as found. Following these chapters, recommendations and a conclusion is given in Chapter 6, whereby main findings are presented. Acknowledgements and references can be found at the end of this paper, in respectively Chapter 7 and Chapter 8.

## 2. Background

In order to frame this paper in a broader context some background information is given. First, the academic debates and thinking about the relationships between the topics, mentioned in the introduction, are summarized below in the first three paragraphs. Secondly, in paragraph 2.4 the changes in developmental policy is investigated, especially by looking to the efforts to put natural disasters on the international developmental agenda. Lastly, the conceptualization made by academics on natural disasters and the management of such disasters is given in paragraph 2.5. Hereby, also the concepts used in this paper are defined in order to clarify them and prevent them to be misinterpreted.

### 2.1. Natural hazards and disasters

Natural hazards like droughts, floods and earthquakes have a severe impact on people's livelihoods by killing and injuring people, but also through loss or damage of property. The Centre for Research on the Epidemiology of Disasters (CRED) reported that "more than 235 000 people were killed, 214 million people were affected and economic costs were over 190 billion US\$" due to all kinds of disasters in 2008 alone (Rodriguez *et al.*, 2009). Dayton-Johnson (2004) points out that people's livelihoods are affected by "their immediate and long-term aftermath", not only when disasters actually hit but also by the fact that "the insecurity to exposure to disasters is in itself harmful to risk-averse people."

According to Frerks, *et al.* (1999) the risk of exposure to disaster is "a combination of a natural or man-made hazard and the vulnerability and capacities of the population, community, household or individual concerned." Many authors expect a further increase in this risk of exposure to disaster for two reasons. Firstly due to the increase in the number and intensity of natural hazards associated with climate change and climate variability, see for example (Adger *et al.*, 2003); (Thomalla *et al.*, 2006) and (van Aalst, 2006). Secondly because of *increasing* vulnerabilities and/or *decreasing* capacities. For example, "population growth combined with demographic change and movements leading, for instance to unplanned urbanization, growing demand for food, industrial goods and services" and "increasing pressure on natural resources" (Baas *et al.*, 2008:1). These views are contested by scholars, like Parker (2000), who state that natural disasters can also create a "window of opportunity" to fundamentally address vulnerabilities. Other scholars like Holmgren and Scheffer (2001), show that climatic disaster can also increase carrying capacity of ecosystems.

Meanwhile the continuing debates, whether the impact and number of natural disasters increases, and how exactly it affects development, many scholars dedicate themselves to find best practices for managing the impacts of natural disasters.

### 2.2. Disaster management and development

Yodmani (2001:vi) states that the disaster management sector shifted from "seeing disasters as extreme events created by natural forces, to viewing them as manifestations of unresolved development problems." Therefore "an evolution in approaches – from relief and response to vulnerability analysis to risk management – has started influencing how disaster management programs are now being planned and financed." Dayton-Johnson (2004) gives 5 rationales to link development to disaster management, namely that, natural disasters: (1) disproportionately strike developing countries, (2) are worse for the poor, (3) can dampen economic growth, (4) depress social welfare more generally and (5) are a development issue because development policy — both domestic and international — can credibly make a difference to lessen the impact on poverty, growth and welfare.

This shift is reflected by the fact that developmental organizations play an increasing role in Disaster Risk Management (DRM). The World Conference on Disaster Reduction (WCDR) also ascribes this role to developmental policies in the strategic goals of the Hyogo Framework of Action (HFA): "(a) The more effective integration of disaster risk considerations into sustainable

development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction; (b) The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards; (c) The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities." (WCDR, 2005)

### *2.3. Property rights and development*

The importance of property rights is widely acknowledged by many different organisations, for example Oxfam, FAO and the World Bank (Palmer, 2007) and several authors, e.g., Feder and Feeny (1991) and Claessens and Laeven (2003). These authors conclude that the "the nature of these rights and the way they are enforced have significant consequences for resource allocation and economic efficiency" (Feder and Feeny, 1991:146) and according to the development organisation Oxfam (2010) "access to land and security of tenure are necessary for people to raise and stabilise their incomes and to participate in economic growth. They are also essential prerequisites for diverse land-based livelihoods, sustainable agriculture, economic growth, poverty elimination, for achieving power in markets, managing natural resources sustainably, and preserving a people's culture".

The relationship between property rights and development seems very straightforward, but von Benda-Beckman *et al.*, (2006:1) points out that is not always the case. Firstly, because dealing with these subjects "immediately entangles one in a long history of intertwined conceptual discussions, social philosophies and ideological justification of past, present and future property regimes." These scholars argue that misunderstanding property and property right regimes, by assuming that Western legal systems were universal and that private individual ownership was a key to economic evolution and efficient marketing, led to "encouraging property policies that have unintended and deleterious consequences." (Ibid:2006:2). A good example is the experience of the World Bank described in (Deininger and Binswanger, 1999), stating that "formal land titling, is not necessarily the most cost-effective and desirable way to ensure secure tenure and facilitate land transfers. One alternative is to award property rights to communities, which then decide on the most suitable tenure arrangements." (p. 269).

Secondly, (von Benda-Beckmann, 2006:1) point to practice of property right regimes. Empirical research, especially by anthropologists, show that "property regimes[...]cannot easily be captured in one-dimensional political, economic or legal models". Furthermore, the relationship between property rights and development cannot be so straightforward because in many cases multiple property rights regimes co-exists, so-called legal pluralism.

So, in short developmental organizations acknowledge the importance of property rights for development. But a wrong understanding of the complexity in daily practice and the political and ideological ideas attached to it by developmental organisation, can undermine rather than strengthen property rights for the people wherefore the projects were intended to.

### *2.4. Development policy*

The United Nations designated the 1990's as the International Decade for Natural Disaster Reduction (IDNDR). International links between scientific and engineering "know-how" were promoted in order to reduce loss from disasters. In 1994, the first World Conference on Natural Disaster Reduction was held in Yokohama, resulting in the *Yokohama Strategy and Plan of Action for a Safer World*. This document focused especially on socio-economic vulnerability. "During its decade, IDNDR achieved important results in moving us from a culture of reaction to one of prevention, and in forging vital links amongst the political, scientific, and technological communities" (Stanganelli, 2008:94-95). Nowadays IDNDR is replaced by the UN International Strategy for Disaster Reduction (UNISDR). The mission-statement reads: "The ISDR aims at

building disaster resilient communities by promoting increased awareness of the importance of disaster reduction as an integral component of sustainable development, with the goal of reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters" (UNISDR, 2010). ISDR organised the World Conference on Disaster Reduction (WCDR), which was held 18 through 22 January 2005 in Hyogo, Kobe, Japan. This conference resulted in the Hyogo Framework for Action for 2005-2015: 'Building the Resilience of Nations and Communities to Disasters'. Due to the adoption of this framework, "increasing attention is now paid to the capacity of disaster-affected communities to 'bounce back' or to recover with little or no external assistance following a disaster." (Manyena, 2006:1) One rationale for this "promotion of a culture of prevention" is that "disaster risk reduction is an investment for the future with substantial returns. Risk assessment and early warning systems are essential investments that protect and save lives, property and livelihoods, contribute to the sustainability of development, and are far more cost-effective in strengthening coping mechanisms than is primary reliance on post-disaster response and recovery." (WCDR, 2005). Furthermore, Dayton-Johnson (2004:9) states that "donors are especially pressed to ensure the cost-effectiveness of disaster-relief efforts". Because firstly, aid flows to disaster relief have increased fivefold, while "general" aid flows are stagnating; and secondly "there is a growing concern that the magnitude of the human consequences of such disasters is growing with time".

So, in conclusion, the focus in disaster management has shifted, under influence of academics, who clearly linked human influences on the outcomes of natural disasters. This led from a 'culture of reaction' to a 'culture of prevention'. Developmental policy nowadays focus more on prevention and enhancing the resilience of communities in order to cope better with natural disasters.

## 2.5. Key concepts

### **Disaster**

Although there is always much debate among academics on how to conceptualize phenomena like disasters and how to define these concepts, there was a trend to see disasters not as isolated cases of acts of God, but as phenomena with clear human influences. Disasters do not strike randomly and do not affect all people the same. Therefore human vulnerabilities and capacities were added to the "equation" of disaster, as an outcome of a certain natural hazard. Nowadays, the most widely used framework, which was summarized by (Frerks *et al.*, 1999) is, that the risk to be exposed to a disaster is a combination of a natural or man-made hazard and the vulnerability and capacities of the population, community, household or individual concerned. Social networks are used by people to support each other and to avoid risk and mitigate disaster. The concept of capacity, advocated by Anderson and Woodrow (1989), takes into account their organising practices to cope with disaster. A description focused more on the outcome of disaster is given by Blaikie *et al.* (1994:21); "A disaster occurs when a significant number of vulnerable people experience a hazard and suffer severe damage and/or disruption of their livelihood system in such a way that recovery is unlikely without external aid"

### **Risk**

The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions. (UNISDR, 2010)

### **Natural hazard**

An extreme natural event which may affect different places singly or in combination at different times. Hazard may have varying degrees of intensity and severity (Blaikie *et al.*, 1994:21).

### **Vulnerability**

The extent to which an individual, community, sub-group, structure, service or geographic area is likely to be damaged or disrupted by the impact of a particular disaster hazard (Kotze and



Holloway, 1996).

### ***Capacity***

The combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk or the effects of a disaster. Capacity may include physical, institutional, social or collective attributes such as leadership or management. Capacity may also be described as capability. (UNISDR, 2010)

### ***Resilience***

The intrinsic capacity of a system, community or society predisposed to a shock or stress to adapt and survive by changing its non-essential attributes and rebuilding itself. (Manyena, 2006)

### ***IDP's***

Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border. (UNHCR, 1998)

### ***Disaster risk management***

According to Shipper and Pelling (2003:24) "disaster risk management most regularly refers to both disaster risk reduction (prevention, preparedness and mitigation) and humanitarian and development action (emergency response, relief and reconstruction)". The United Nations International Strategy for Disaster Reduction ([UNISDR](#)) defines Disaster Risk Management as: "the systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards.

The components of Disaster Risk Management are defined by UNISDR as follows:

#### ***Response/Relief***

The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration"

#### ***Recovery***

Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk.

#### ***Prevention***

Activities to provide outright avoidance of the adverse impact of hazards and means to minimize related environmental, technological and biological disasters.

#### ***Mitigation***

Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.

#### ***Preparedness***

Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

### **DRM-framework**

Many Disaster Risk Management (DRM)-frameworks incorporate above-mentioned components. A well known one was represented as a cycle (Keim, 2008), because many disasters seem to recur (e.g. hurricanes). However, also more time linear representations of DRM exist (see Figure 1). In this figure, Baas *et al.* (2008) divided DRM into three periods, with different actions represented by arrows, as a framework for the UN Food and Agricultural Organization (FAO). This framework consist of the Disaster Risk Reduction (DRR) period, the Emergency Response period and the Recovery period. These periods are also used in this paper to structure the paper.

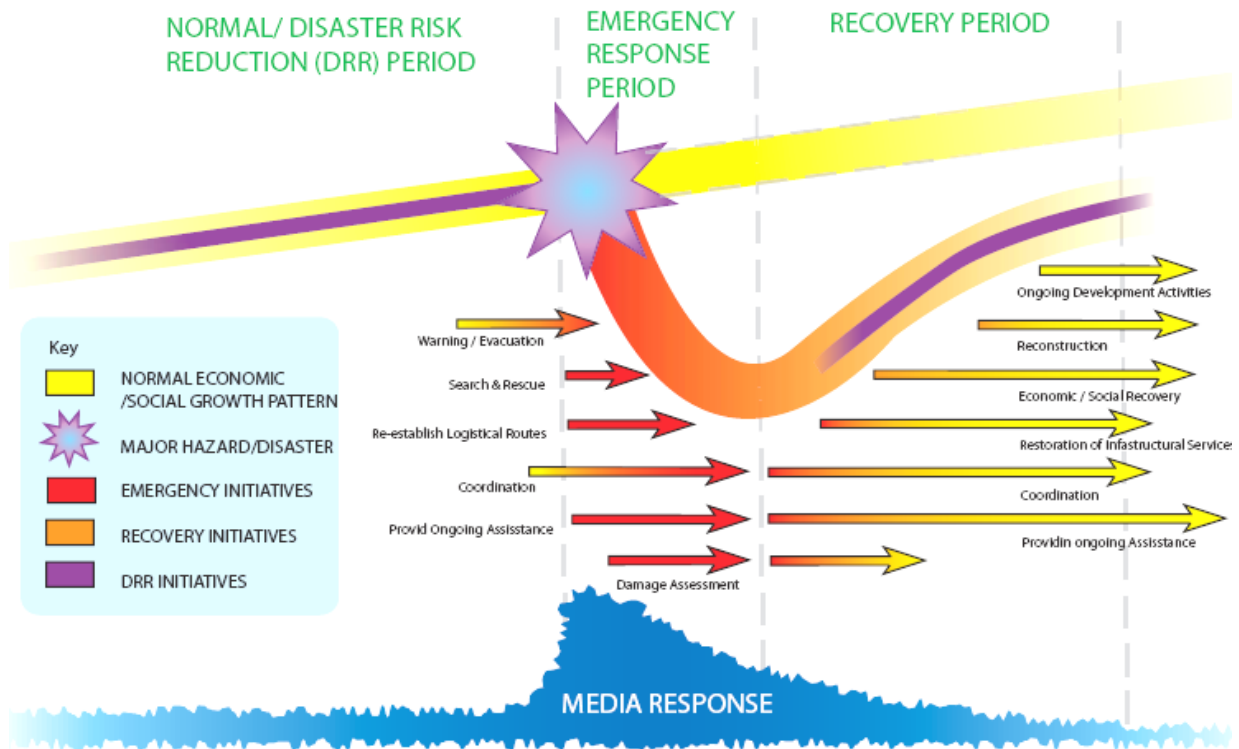


Figure 1 Disaster Risk Management- framework (DRMF)

source: Baas *et al.* (2008)

### **Property Rights**

According to von Benda-Beckmann *et al.* (2006) property concerns "...the organization and legitimization of rights and obligations with respect to goods that are regarded as valuable"

These property rights are basically categorized by Berkes (1996) in the following four types;

#### **Private property**

The rights to exclude others from using the resource are vested into an individual or a group of individuals like a corporation.

#### **Common or communal property**

The resource is held by an identifiable community and they together have the right to exclude outsiders and use the resource.

#### **State property**

Here the rights are vested exclusively in the government and they have to decide in the level of access and exploitation.

#### **Open access**

There is an absence of well defined property right, unregulated access and it is free and open to all.

According to (Roth, 2009) these categories are mostly seen as to simplistic for applying to daily practice, than an in-depth analysis is needed that "starts from a broad conception of law, taking into account the plural character of legal regulation and its close relationship to the social, political and cultural dimensions of life" (Ibid:199)

So, seeing them as a 'bundle of rights' with a 'layered character'. About the first, Ostrom and Schlager (1996; in Hanna *et al*, 1996) distinguish five different positions and the type of right each position holds. How these form into different bundles of rights can be seen in Table 1.

	Owner	Proprietor	Claimant	Authorized user	Authorized entrant
Access	+	+	+	+	+
Withdrawal	+	+	+	+	
Management	+	+	+		
Exclusion	+	+			
Alienation	+				

**Table 1 "Bundles of rights"**

*Source: Ostrom and Schlager, 1992 cited in Ostrom and Schlager, 1996 in Hanna, 1996*

By "adding" a third dimension to the table and making it into a cube the 'layered character' is represented.

So, the different levels and the different legal systems can be distinguished. von Benda - Beckmann (2006:11) distinguishes than four levels namely the ideological, the legal institutional, the social relational, and the quotidian practice. In the same way the different legal systems can be 'layered'. Representing for example state law, customary law and religious law. This framework is more applicable to the complexity of legal reality in most cases and is the most commonly used conceptualization for analysing property rights.

### ***Institutions***

According to North (1990:3) institutions are "the humanly devised constraints that shape human interaction. They structure incentives in human exchange, whether political, social, or economic." However, according to von Benda-Beckmann, this definition is too narrow and therefore this paper uses the definition of von Benda-Beckmann (2006:11); institutions "spell out rules and procedures for the appropriation and transfer of rights"

### ***Legal pluralism***

When dealing with land tenure and the institutions concerned, in many cases a form of legal pluralism exists. This means that there is a dynamic interaction between different forms of legal systems, like national law, customary law and religious law (von Benda-Beckmann, 2003). In the case of land tenure, legal pluralism can be found in the way people claim the land. They can base their claim upon, or support their claim by different forms of law, which can lead to conflicts regarding the access to this land.

### 3. Property rights and disaster

The following chapter discusses the different effects of property rights concerning two completely different disasters and serve as an illustration for the relationship between property rights and natural disasters. The two cases are (1) the effects of the Indian Ocean Tsunami in 2004 on Banda Aceh, Indonesia and (2) the drought of 1983-1985 in Sudan on pastoralists. For both cases first a short description is given about the disaster. Secondly several factors are presented whereby land and property rights issues played a role and thereby influencing the vulnerabilities and capacities of the population. Showing that the way property rights are constituted and enforced indirectly aggravated or lessened the impact of the two different natural disaster on livelihoods. These factors are presented in the same order as the DRM-phases, so first the disaster risk reduction phase, the emergency phase and then the recovery phase. Although the influence of many factors is not limited to a certain phase, this structure is maintained for clarity's sake.

#### 3.1. Case of Aceh

##### The 2004 Indian Ocean Tsunami

The 2004 Asian Tsunami was triggered by a Richter scale 9 magnitude earthquake off the coast of Indonesia. It was the most devastating disaster in modern history, killing over 250,000 people throughout South and East Asia (Munasinghe, 2007). In Indonesia the tsunami struck the western coast of north Sumatra. Indonesia's Aceh province, Nanggroe Aceh Darussalam (NAD), suffered the greatest mortality, with widespread destruction extending along more than 1000 km of coastline. Approximately one year after the tsunami, the Indonesian government estimates for Aceh indicated 126,602 deaths, 93,638 missing and 514,150 tsunami-displaced. Furthermore, about 250,000 houses, 300,000 parcels and about 150,000 hectares (ha) of agricultural land were destroyed (Fitzpatrick, 2005). The disaster caused about 600,000 people to lose "their sole source of livelihood" and lifted the unemployment rate to one out of three (Fan, 2006:8). The disaster struck an already impoverished province, which is reflected in the fact that more than half of the population did not have access to clean water and 38 percent had no access to any health facilities in 2002. Poverty increased with 239%, measured from 1980 to 2002, in sharp contrast with the rise of Gross Domestic Product in the province due to natural resource exploitation and also in sharp contrast with the rest of Indonesia, where poverty fell with an average of 47 percent (Fan, 2006).

##### 3.1.1. Disaster Risk Reduction-phase

###### Coastal protection

Many authors, including Dahdouh-Guebas *et al.*, (2006), addressed the relationship between coastal vegetation, mainly mangroves, and the severity of tsunami-impacts. The authors conclude that "mangroves play a critical role in storm protection" and that "the conversion of mangrove land into shrimp farms, tourist resorts, agricultural or urban land over the past decades, as well as destruction of coral reefs off the coast, have likely contributed significantly to the catastrophic loss of human lives and settlements during the recent tsunami event" (Dahdouh-Guebas *et al.*, 2006:446). A study of Adger and Tutrell (2000) shows that "wetland resources are often managed as common pool resources, and that state appropriation of resources or the imposition of private property rights can contribute to unsustainable utilisation or conversion of wetlands to other uses".

So, in this case privatization did result in overexploitation of coastal areas, with the removal of mangrove forest as an effect. Wong (2009) therefore pleads for "disaster risk reduction and coastal management to reach common ground at least for coastal hazards." The Rapid Environmental Assessment carried out by the United Nations Environmental Programme (UNEP), shortly after the tsunami, acknowledged the problem and suggested that "during the recovery process, fishing

communities must be engaged to the maximum extent possible in formulating and implementing restoration programmes for mangroves and wetlands. Extraction rates should be linked to resource replenishment capacity in general, and especially in the case of recovering ecosystems. A damaged tambak (shrimp farm) may be best replaced with the mangroves that it originally destroyed. Return to a traditional tambak design (versus modern intensive methods), integrating passive water flows and harmonizing with mangroves may allow both systems to co-exist." (UNEP, 2005).

### **Legal pluralism**

For Indonesia, Williams (2006) distinguishes three legal sources of land tenure in Aceh. Rights provided by (1) local norms or customs, named *adat*, (2) family and succession laws from religious texts, the Islamic *shari'a* and (3) state law. A short introduction how these three legal systems relate to each other and function on different levels in Aceh given by Wojkowska and Cunningham, (2010:99-107) and Harper (2010:158-159). These legal systems are important because they regulate tenure security, but also future succession (inheritance) of land and property. Because of the legal pluralism in Aceh, multiple claims with different institutions can undermine a person's or communities' tenure security, for now and the future. Wojkowska and Cunningham (2010) explain why *adat* is in use and mention five factors that make certain people more vulnerable when using this legal system. One example is that the *adat* system is dominated by men, members of the population's majority, which often leads to discrimination of women and minorities. Wojkowska and Cunningham (2010:103) also state that "*adat* is highly susceptible to elite capture and third party interests". These, rather normative, statements can also be attributed to the other legal systems and it should be mentioned that there's a discrepancy between formal laws and daily practice. For example, in personal contact Dik Roth mentions that state law institutions, are notoriously inefficient and abuses, like corruption exists (Roth, 2010). Another factor associated with legal pluralism in Aceh, is that within the *adat* system, no records are physically stored, together with the fact that the Badan Pertanahan Nasional (BPN), the National Land Agency is very inefficient and corrupt in storing records, which resulted in the fact that only 25% of the land in Aceh was registered and stored. Such factors, which can lead to increasing tenure insecurity, comes to surface even more prominently when a disasters strikes.

### **War**

Another important factor, which cannot be left out of this analysis, is the armed conflict in Aceh. For example, Wojkowska and Cunningham (2010:99) state that: "[e]ven before a tsunami devastated Aceh in December 2004, the formal justice system in the province had virtually collapsed. This was partially due to the 30-year conflict that had afflicted the province and partially as a consequence of broad-scale institutional failure." The conflict started in 1976, when the Gerakan Aceh Merdeka (GAM) started to fight for an independent Aceh. According to Harper (2010), the conflict intensified between 1990 and 1998 when the government declared the province an "area of military operations" (*Daerah Operasi Militer*). After this period several laws granted Aceh a more autonomous status and changed the legal system in Aceh (e.g. *shari'a* courts were established). One of the results of the internal war is a fear for Indonesian governmental institutions, giving Acehnese a preference for the *adat* legal system (Wojkowska and Cunningham, 2010:101).

## **3.1.2. Emergency Response-phase**

### **Shelter**

The 2004 tsunami made more than 500,000 people homeless. One year after the disaster, about 67,500 people still lived in tents and 50,000 in barracks according to the governmental Badan Rehabilitasi dan Rekonstruksi untuk Aceh dan Nias (BRR), the Rehabilitation and Reconstruction Agency for Aceh and Nias (BRR, 2005), while Fan (2006) states that some 78,000 lived in tents and 70,000 in barracks. This means that hundreds of thousands were still living in temporary housing

two years after the tsunami. One of the problems around land issues during sheltering is eviction. Camps of tents or barracks require land, which is sometimes privately owned. Slow recovery makes landowners who were earlier prepared to allow internally displaced persons (IDP's) on their land temporarily, threaten to evict them or ask rent, because owners need the land for their own living (Fan, 2006:13). Furthermore, IDP's are not only threatened to be displaced again by landowners but also by major infrastructure projects (Fan, 2006:14). Protracted temporary housing is thus a *result* of the fact that these people cannot shift into the so-called recovery phase. Several reasons for this are discussed below.

### 3.1.3. Recovery-phase

The Government of Indonesia (GoI) established the BRR, which made a Master Plan for rehabilitation and reconstruction. In this document specific attention was given to land rights in the proposed measures, namely "an audit of the physical condition of tsunami affected land", "replacement of lost land documents and the issuance of new records for those who never held them". Protection of land and property rights of affected communities" was seen as a pre-condition for reconstructing houses and infrastructure and recovery of livelihoods (Fan, 2006:10). Below, we will further examine the proposed measures and issues concerning such land rights issues.

#### **Tsunami affected land**

According to early GoI-estimates about 160,000 urban and 140,000 rural land parcels were directly affected by the tsunami. In rural areas 150,000 ha of crops were damaged because of salt water, sand, mud or erosion (Fitzpatrick, 2005). A year after the tsunami the GoI estimated that about 80,000 hectares are lost by submersion and therefore some 35,000 households have to be relocated (Fan, 2006:12).

#### **Replacement of land records**

The replacement of land records was difficult for many reasons. Firstly, many land records and personal identity cards were lost within tsunami-affected communities and by the fact that the National Land Agency (BPN) and sub-district offices lost almost all land register books, cadastral index and land parcel plans. Secondly, because people were killed, the legal infrastructure was severely disrupted, statutory as well as customary (*adat*). For example 30% of the BPN personnel lost their lives and many village administrations did not function after the tsunami. Thirdly, because the tsunami swept away many features, like trees, the boundaries of parcels became unclear, because boundaries were based on these features. Fourthly, approximately 75 % of the land is classified as customary (*adat*) ownership and is not certificated. These records are mostly held by poor landholders, who could not afford official certification. (Fitzpatrick, 2005). The last difficulty, was the fact that some people had no records or titles at all. Many renters and squatters, about 15,000 households, did not own records before the tsunami, but need tenure security to obtain new livelihoods (Fan, 2006). In order to overcome these problems the BPN set up the RALAS (Reconstruction of Aceh Land Administration System) project, which aims to register 600,000 parcels with a process of community mapping and land titling, before 2009 (Fitzpatrick, 2008).

#### **Inheritance**

Property rights also regulate the succession of possessions like land and houses. The plural legal system discussed above, makes inheritance in the post-disaster situation complex and heavily determines the course of the recovery phase, because it should regulate losses of tenural documents and land and assign heirs for the people who are killed. Especially women were found to be vulnerable (Fitzpatrick, 2008). The author concludes this because "[w]omen often face pre-displacement constraints on rights to land, and are at greater risk of losing access to land after disasters." (ibid:9). He mentions several factors that make women loose, or prevent them from having, access to land. Claims from women (widows or daughters) were denied by village leaders.

The legal system was based on a male household, so women could not access their land unless they (re)married. It was also found that women lack information about the legal system and their possible claims. All these issues and conflicts should be resolved by the mobile shari'a court of RALAS, which also appoints guardians for orphans (ibid:34). Fitzpatrick (2008) criticizes the slow pace of this mechanism, which slows down recovery.

### 3.2. Case of pastoralists in Sudan

Although different numbers are reported, it is clear that a significant part of the Sudanese population is involved in cattle raising. According to the estimation of Ahmed *et al.* (2002) about 25-40 per cent is pastoralist, either nomadic or semi-nomadic. Pastoralists possess 96% of total livestock in the Sudan and their outputs cover the total domestic meat demand and 70% of the domestic milk demand. Thereby it accounts for 20% of Gross Domestic Product (GDP) and 20% of Sudanese foreign exchange earnings. It is also a very significant source of employment for about 80% of the rural workforce. Furthermore, several authors, like LeLoup (2004), stress that pastoralists use the ecological marginal areas best. Especially when pastoralists maintain mobility, they use the arid and semi-arid regions in an economic sense at its fullest potential (Breman and de Wit, 1983) also regarding to land degradational aspects (Behnke, 1994). Ahmed *et al.* (2002) estimate that about two thirds of Sudan consists of such marginal lands.

#### The 1980s' droughts

The international disaster database called EM-DAT of the Centre for Research on the Epidemiology of Disasters (CRED), reports that in the last three decades the Sudan was struck eight times by a drought. The Sahelian drought in the 1980's resulted in severe famines in the years 1983-1985 and killed 150,000 people and affected 8.4 million people in Sudan ([EM-DAT](#)). Kordofan and Darfur in the West, and Red Sea in the North-East of Sudan were the most affected provinces; in these areas food production was below subsistence level. For example in North Darfur and Kordofan respectively only 18 and 24% of the total need was produced (Olsson, 1993). The droughts of the 1980's also had a severe impact for pastoralists, because dry spells stunts pastures and water wells are dessicated. The resource shortages halt the herds' reproduction and milk production, and eventually kill livestock. Effects of droughts are not over when rains return. Livestock deaths can lead to imbalanced herds, and, as milk is only produced after pregnancy, this affects milk production on the long term. Ahmed *et al.* (2002) mention beside the direct famine and these delayed effects, becoming destitute of cattle is also a threat, because future livelihood opportunities are lost. To give an indication of the severity of the drought in the 1980's De Waal (1989:5) describes that for the Darfur province a "lack of pasture also led to the deaths of about half the livestock in the region". Because of these dry spells pastoralists have developed several coping strategies. Ahmed *et al.* (2002:VII) mentions ten endogenous strategies that are incorporated in traditional pastoral livelihoods: "(i) movement to places where the availability of pasture and water are relatively better; (ii) herd diversification in favour of resilience to drought; (iii) herd splitting; (iv) herd expansion and dispersal; (v) dispersal of resources and assistance from relatives; (vi) forage supplementation; (vii) generation of food stores; (viii) sale of non-livestock assets; (ix) income generation from non-pastoral activities; and (x) reduction of food intake and change in diet composition." Exogenous responses provided by external agents are; the provision of (relief) food and fodder, health and veterinary services and facilitating pastoral movements (Ahmed *et al.*, 2002). The section below describes how property rights did influence these endogenous and exogenous strategies in the different Disaster Risk Management phases. Although it is difficult to distinguish these phases within such a "slow-creeping" and spatially variable hazard, for the sake of analytic simplicity and comparative power, these phases are also used for this example.

### 3.2.1. Disaster Risk Reduction-phase

#### Legal framework

Babiker (2009) explains that in colonial times, the British established a legal system based on communal land rights in the Sudan. This meant that belonging to a community or tribe gave access to usufruct rights to land, which was subjected to tribal custom and tribal authority. No one could claim private ownership of the land, moreover almost all land in Sudan, about 99%, was unregistered land and declared as state ownership. The system made 'indirect rule' possible, because native authorities were empowered and could govern the rural population on behalf of the colonial authorities. Also it prevented "foreign speculators and native absentee landlords from acquiring land" (Babiker, 2009:246.)

After independence in 1956, the tenure system eroded and changed slowly, leading to "conflicting decisions over land use and the continuous encroachment of the federal government on land in the states." (Babiker, 2009:247). This process of land acquisition by the government is reflected in the Unregistered Land Act of 1970, which states that "all land that is not registered before its enactment becomes the property of the government." According to Babiker, (2009:249) this Act "brought about a drastic change in the concept of "ownership" of unregistered land" and "cuts heavily into rural communities' land rights and challenges communal and tribal ownership." (Kibreab, 1997:27) argues that because the Government of Sudan (GoS) did not have the "administrative, financial and labour capacity, the government was unable to enforce its own laws and the country's common property resources became *de facto* open-access resources. This enabled the powerful classes to appropriate land with no regard for the traditional land rights of the pastoralists and small farmers. Not only did this 'rush for land' create tenurial insecurity among pastoral groups and small farmers, but many of them were forced off on to marginal and degradation-prone sites". The Civil Transaction Act of 1984 states that "registered usufruct rights are equal to registered ownership", "legalizes elements of Shari'a law" and "confirms the role of the government as a land owner and manager" (Babiker, 2009:249). In summary, this meant that tenure was organized differently among all different tribes within their specific homeland (dars) as a legacy of British 'indirect' governance, but under contemporary government this system eroded and weakened. Firstly because the state nationalised the land, secondly because the GoS lacked capacity to enforce laws on the nationalised land, allowing powerful people in the private sector to acquire land from pastoralists.

#### War

Sudan is plagued by several internal conflicts. Already in 1955, before independence, tensions arose between southern Sudan and northern Sudan. After 50 years of civil war, the Comprehensive Peace Agreement was signed between the Government of Sudan (GoS) and the rebel group Sudan People's Liberation Army (SPLA) in 2005. According to Olsson (1993:395), war and unrest are the primary causes of famines, not drought and crop failure, because civil war in the Sudan is "jeopardizing food security and economic development". Although there is much debate about the root cause(s) of the conflicts in the Sudan (whether it is ethnic or resource scarcity driven), the effects of the war on property rights are evident and making the population even more vulnerable to a disaster like drought, as will be briefly explained below. The authority of the GoS is contested, which makes it even difficult to enforce tenurial laws. Furthermore, in neighbouring countries conflicts disrupted the society and the livelihoods of pastoralists, resulting in an influx of refugees to Sudan.

#### Refugees and IDPs

Already before the drought, many fled Eritrea for Eastern Sudan. The first wave, in 1967, consisted of some 30,000 Eritreans. In 1983 this number had risen to about 460,000, among them pastoralists, who settled largely in the northern part where mechanized agriculture was not possible (Bascom, 1993). The same happened on the other side of Sudan. Darfur hosted about 120,000



refugees from Chad (de Waal, 1988). As stated in the Asylum-law of Sudan, refugees cannot claim pieces of land. They depend on what is designated to them by governmental organisations or traditional leaders. Boscam (1993) reports that only one third of the refugees in the camp received a little piece of land and due to the few options for a livelihood offered to the refugees, many chose to remain outside official camps and give up shelter, food ration and healthcare. Also de Waal (1988:1) reports that: "[t]he assistance programme restricted the mobility and hindered the integration of the refugee population, and thereby maintained them in an economically fragile area, contributing to the disaster" Internally Displaced People (IDP) also depend on decision making by traditional leaders in the traditional system. Ahmed *et al.* (2002) and Kibreab (1999) reported that large influxes of international refugees and IDP's are eroding or simply not recognising traditional rights and conflict resolution systems, creating even more tenurial insecurity and conflicts for both newcomers and "traditional users". Especially in Darfur this lead to conflicts between farmers and migrating pastoralists.

### **Access to grazing land and water**

Many authors report the decrease of access to grazing land for pastoralists in the Sudan, for example Babiker (2009) and McCarthy *et al.* (1999). Historically the GoS tends to more and more neglect the rights of 'traditional' users. Already in colonial times pastoralists were discriminated against in land disputes between settled agriculturists and pastoralists, because the first group was believed to return more economic benefits per area (Babiker, 2009). Although, many scientists nowadays are convinced that pastoral use of marginal areas is best practice, the expansion of agricultural use into marginal areas is still continuing. This is accelerated by the implementation of large irrigation schemes by the GoS (Kirk, 1994). This expansion of agriculture is not especially threatening in terms of acreage, because land is abundant, but in terms of obstructing livestock corridors and water wells together with taking over key grazing resources. Thus, pastoral livelihoods are affected by eliminated access to grazing reserves during dry spells and the reduction of mobility (McCarthy *et al.*, 1999). The aforementioned process, which is an outcome of the legal and political context, is a continuing phenomenon but is not mentioned in reports about the direct causes of the 1983-85 famine, like the reports of de Waal (1989) and Olsson (1993). These authors concluded that the prime causes of mortality during famine were a number of health crises, massive speculation in food, and the poor redistribution of food. Although they do not mention the role of access to grazing lands, this may still have been a factor in increasing the mortality of pastoralists in the 1983-1985 famine.

## **3.2.2. Emergency Response Phase**

### **Famine camps**

As a result of the severe drought, many relief organizations provided food to pastoralists. Many refugee camps were established in order to accommodate the extra refugees and IDP's. Even destitute pastoralists sought entry in these camps in order to cope with the drought (Bascom, 1993). De Waal (1988, 1991) stresses that in and around camps in which crops were not requisitioned and people were allowed to move to sources of labour and looking after their farms and the famine was less severe. Therefore de Waal argues that respecting peoples material rights and humanitarian rights is a much more fruitful approach to droughts, than just providing relief foods, which only accounts for at best 10 percent of their required food intake.

## **3.2.3. Recovery Phase**

Unfortunately not much literature is found about the influences of property rights after the drought.

This suggests that not much changed in the property rights regime. But it doesn't mean that they are not important in order to recover from a drought. The processes mentioned in Paragraph 3.2.1 are continuous and still play a role in the DRR-period and hampering recovery. The division in different Disaster Risk Management-phases can be rather confusing. However, two processes are found in the literature that occur specific in a post-disaster situations. Also here property rights are mentioned as a important factor.

### **Restocking of cattle**

The traditional restocking method of cattle is by "borrowing" cattle of relatives and friends in exchange for labour i.e., looking after their herd. Another method mentioned in literature is livestock raiding (Ahmed *et al.*,2002). Traditionally, this system "followed rules designed to limit damage to life and property, and was resolved in a manner that provided for mediation and compensation rather than punishment" (Markakis, 2009:57). Especially when these traditional systems of resolving disputes erode and new institutions to secure the property and land rights of the population cannot be provided by the GoS. Boudreaux (2006:71) argues that this happened in Darfur and resulted in the fact that "violence has escalated to enormous proportions" because "[n]ot only does the central government ignore traditional land rights, it has failed to provide impartial tribunals for dispute resolution." This fact is reflected in the armed conflict after the drought between the pastoral 'Arabs' and the Fur. Markakis (2009) adds that raiding became even more prevalent because of inter-and intrastate conflicts, the option to commercialize cattle, experience with arms, and the presence of weaponry. As a consequence, staple recovery and future livelihoods of pastoralists became even more insecure.

Beside traditional restocking, external agents also provide restocking of cattle. Ahmed *et al.*(2002) state that after the 1980's droughts this policy option for improving drought affected livelihoods, was not often opted for by external agents, even though Toulmin (1986) argued that restocking was economically more attractive, than small-scale irrigation schemes. Nowadays, more and more NGOs are involved in restocking.<sup>2</sup>

### **Repatriation**

As mentioned before, the livelihoods of people are far from static. This is clearly represented in a study by Haug (2000). She studied the return of the nomadic pastoralists of the Hawaweer from Northern Sudan, whose migration was forced by the drought. "The Hawaweer who returned to Um Jawasir are in many ways different from the ones who left. New social positions, social differentiation and patterns of living have developed." (Haug, 2000:15) She also stresses the importance of land rights: "The Hawaweer did not return because of a nostalgic notion of home, but because they could claim rights in the area and because the Um Jawasir project could provide the most secure livelihood option." [...] "The most important factor for the Hawaweer who chose to return was the new livelihood opportunity created in their homeland. This new livelihood opportunity was based upon traditional rights to the land. Without the traditional rights of the Hawaweer to the land as well as effective traditional institutions, the new livelihood opportunity would probably not have succeeded."(Haug, 2000:15)

### **3.3.Recap**

The above-mentioned results were presented to establish a relationship between natural disasters and property rights. Several factors were sketched to give an idea of the relationship between how property rights are institutionalised or/and enforced and the impacts of this on an natural disaster. Often there's no one-to-one relationship between property rights and the outcomes of a disaster, it's influencing certain factors which eventual have an influence on the coping capacities of the people

---

<sup>2</sup> For an evaluation of the benefits and problems associated with restocking efforts please refer to Heffernan and Rushton (2000)

struck by the disaster. However, it can be concluded that in general the impact of natural disaster is worsened when people have weak property rights. First, due to either exclusion in formal laws, civil war, laws promoting removal of protective barriers or coexisting legal systems people are poorly prepared for a disaster. Furthermore, it's clear that recovering from a disaster is hampered when the "infrastructure" regulating property right is damaged. Be it the destruction of tenural documents, features which mark boundaries, government officials or people with the task to memorize local titles. Also these two cases showed that natural disaster can serve as a accelerant in land grab. Although, such processes are existing in the pre-disaster situation, e.g. by continuing formal exclusion or violating rights of certain groups, the disaster shapes an environment facilitating easier land grab, for example by the fled of former users of the disaster struck areas. The cases showed also that the influence of property rights on the outcomes of natural disasters is very context specific. Therefore, every natural disaster will have different outcomes in different contexts of property right regimes. Implying that, although natural disaster have "natural" origins, the outcomes of such disaster are heavily shaped by how society is organized, with the property rights regimes as one of the pillars constituting this social organisation.

Furthermore, the relationship established in this chapter between natural disasters and property rights, implies that organisations dealing with the recovery from a disaster, such as humanitarian and relief organisations, are not just dealing with rebuilding the destroyed area, but that they also have to reflect on the causes of the disaster and on factors aggravating the outcomes, concerning property rights. And how such reflections are operationalised in policies and practice. To give better insight in such implications the response of 3 Dutch NGOs on previous mentioned considerations is discussed below in Chapter 4.

## 4. Dutch developmental/relief organisations and property rights

This chapter concerns the developmental or relief organisations: their views on property rights and the solutions they provide to problems with property rights. The following discussion is based on semi-structured interviews with representatives of three Dutch developmental/humanitarian relief organisations, namely Gijs Aarts from CordAid, Eelko Brouwer from The Dutch Red Cross and John Buijs from ZOA Vluchtelingen zorg.

### 4.1. *Perceived importance of property rights*

All interviewed organizations acknowledged land and property rights problems as real, important and specific. For example, John Buijs from ZOA states: "It is a vast problem, especially when population pressure rises and corruption is a widespread phenomenon. For our work it is an important problem, also because it is associated with marginalising vulnerable groups. Chaos is misused to steal from people. The strong take the biggest pieces" (John Buijs, 2010). Eelko Brouwer from the Dutch Red Cross mentions that such issues are so important that it should be always in a project assessment because "land issues are, at the very least, a threat to the success of a programme".

### 4.2. *Perceived root causes*

All interviewed organizations started with concluding that land and property are subject to power relations. As Eelko Brouwer from Red Cross puts it, "Land is subject to politics, people's votes depend on land allocation and governments extract their power from it". Thus, failing governmental systems are mentioned as a root cause, because they cannot establish and ensure land and property rights for all their citizens. Although these issues are not unique to (post)disaster situations, disasters can aggravate them or bring them more to the foreground.

### 4.3. *Desired change*

In all programmes, ZOA tries to strengthen the position of the vulnerable, like minorities and women. But this is not the first thing they think about, because firstly they just simply deliver aid and looking at the pre-disaster situation to contextualise this aid. They *than* think up ways of achieving more equity through a programme suited to the specific context. Although the Dutch Red Cross states to be completely neutral, they also try to achieve more equity, also by taking the most vulnerable as a starting point for their programmes. Although, in my point of view neutrality is in danger, because power relations change by aiding a certain group more than others, the neutrality principle is reflected clearer in the fact that the Red Cross does not participate in land reform (Brouwer, 2010). Also the other NGOs are reluctant to intervene in such a way, that laws, titles or institutions are ought to change by a programme. It is hard to really determine the boundaries NGOs impose to themselves in intervening in such issues, though CordAid and ZOA seem a little bit more pragmatic in their way of working.

John Buijs from ZOA is rather sceptical about the view of some that natural disasters are 'windows of opportunity' to bring about fundamental change. "Shortly after a disaster everybody talks about "Building Back Better", but in practice, I experienced that old patterns reappeared. Like the no-building strip at the coast of Sri Lanka; after two years of prohibition people are building there again. So most times, the government should not only think up nice plans, but also have the power to enforce them" (Buijs, 2010).

## 4.4. Dealing with property rights in DRM

### 4.4.1. ZOA Vluchtelingen zorg

John Buijs admits that ZOA does not have a standardized strategy to deal with land and property rights. "The way we look at it is more as a precondition. If it is easy to solve we step in; but if we find out that it is too much of a problem, we keep distance because such issues cannot be easily solved. There are factors that we cannot control, for example, forces on a higher level, corruption, or powerful people who seek to grab the land. For the same reason, are also not involved in permanent housing after a disaster. ZOA offers shelter for up to 3 years only. These temporary houses have the advantage that they are lightweight and in the case that with land rights arise, they can be dug out and placed somewhere else with only 10 men. As a more constructive strategy, ZOA works a lot with conflict resolution projects on community level, and this "social structure and texture" can also be used during a (natural) disaster when land issues arise (John Buijs, 2010). Another strategy ZOA uses is to request the help of a lobby group active in the country, to give attention to abuses in land rights or property rights. But as ZOA needs the approval of local governments, it is very careful with this option.

### 4.4.2. Dutch Red Cross

Eelko Brouwer states that problems around property and land rights, especially arise during sheltering of people. After a natural disaster, the Red Cross usually facilitates the Shelter cluster, a part of the United Nations cluster system. Within this shelter cluster, technical work groups (TWIG) are formed on several issues. When land and property rights issues are identified as a problem, a TWIG is formed specifically for this subject and as much expertise as possible is put into these teams, for example by flying in an expert from a certain university. The Dutch Red Cross itself does not have an expert on their payroll. Another strategy is to report abuses to the local Red Cross/ Red Crescent organization, in order to advocate such problems. Eelko Brouwer mentions an example: "Because of the "ownership approach" the landless in Myanmar were not helped. The local organization advocates then towards the government, other organizations and the United Nations. We always work from the viewpoint of the most vulnerable. So in this case, landless were vulnerable and our organizations have the mandate to speak on their behalf. So the local Red Cross/Red Crescent advocates for a solution to shelter the landless. So, in Myanmar, we focused on the landless, because in this case we see that landlessness makes you more vulnerable to recover from a natural disaster." Furthermore, to keep their neutrality, the Red Cross/Red Crescent has a very clear policy not to cooperate with the government. They also see tasks such as permanent housing, land reform and inheritance issues as typical governmental tasks which they are not involved in. Furthermore, they discuss problems with the sheltering programs with other NGOs in the ShelterCentre in Geneva. The ShelterCentre is a forum of, aid agencies, universities, and NGOs (with expertise in the field of refugee shelters) that tries to develop protocols to deal all sorts of problems, including land and property right issues.

### 4.4.3. CordAid

According to Gijs Aarts, CordAid uses two strategies to deal with land and property rights. The first strategy is to advocate the rights and give a "voice" to vulnerable groups outside the communities, through lobbying and advocacy, thus focusing more on the legal and publicity side. The second strategy focuses on the implementation of Disaster Risk Reduction-programs *inside* the communities. Examples of such programs are fencing off grassland for dry periods and providing a marketing opportunity by destocking cattle before a drought occurs.

## 4.5.Recap

This chapter showed that NGOs are fully aware of the relationship established in Chapter 3. They themselves encountered several problems concerning property rights during developmental and relief projects. For example by having an recovery approach based on ownership, which excluded people without titles or landless. Such problems entails the NGOs immediately in dilemmas, because they have to choose to work within a legal framework, while multiple legal systems may exist. Also choosing between rebuilding the previous society, with associated property rights regimes, or building back “better”, meaning that NGOs seek more equitable rights. The interviews made clear that the 3 Dutch NGOs are reluctant to work on themes directly concerning property rights. The main reason is that most of the times such issues implies taking sides and NGOs want to be impartial as possible. Other reasons given is the recognition of the limited sphere of influence of the NGOs, the issues are so complex and need so much time that NGOs cannot deal with such issues, while their main focus is giving relief. Furthermore, the fact that NGOs often depend on permission of governments to work in certain areas, limit NGOs to really address property rights issues, because often such issues are highly political. Therefore, NGOs for example are not engaged in permanent housing. However, some actions were undertaken to indirectly deal with property rights issues, for example conflict resolution projects, forming technical working groups on property rights issues or providing information, and engaging lobby groups in such issue, for example in order to address unequal property rights. Thus, NGOs did only indirectly incorporate property rights in their Disaster Risk Management-frameworks, mainly because of reluctance in political interference. However, when analysing this line of reasoning it’s rather contradictory. Because all types of projects can be labelled as interventions, which are motivated by convictions, morally as well as politically. Considering the warning of von Benda-Beckmann (2006), it’s wise that NGOs are reluctant to not apply Western solutions surrounding property rights on other situations and thereby neglecting complexity and other legal frameworks. However, keeping themselves aloof and blaming governments and their politics, is as well a choice and is not the solutions for property rights issues. It seems more fruitful for NGOs to admit that they cannot be impartial in such issues and try to change property right regimes where they can, to achieve more equitable rights for all citizens. Because, otherwise people will be as vulnerable towards disasters as they were before and rebuilding efforts, can be in vain.

It should be noted that this advise does not advocate a certain type of legal framework as superior, be that western based or customary legal frameworks. As Henley and Davidson (2008) make clear that supporting customary legal framework, such as *adat* in Indonesia, has it’s disadvantages, because although *adat* achieved the “protection, empowerment, and mobilization of underprivileged groups” (p.815), it can also result in the fact that “*adat*-based movements often become bandwagons for the pursuit or defense of private wealth and power” (p. 819) and that *adat* is used for “the control of resources and the exclusion of rivals” (p. 815). So, it’s also clear that much more thinking and research should be done to incorporate property rights issues in policies of NGOs. Now it seems to difficult for NGOs to achieve a real change in property rights regimes with proper enforcement within this delicate balance of intervening politically. Therefore, it’s good to drag in other kinds of organisations and to enumerate the solutions they propose, concerning property rights.

## 5. Recommended strategies

Beside from the strategies applied by the interviewed organizations, many experts and other organizations try to find solutions for problems concerning property rights. Some of these, taken mainly from working papers, are listed below. These strategies are not exclusively for post-natural disaster situations, but rather try to minimize the vulnerabilities people face in the legal context towards and after a disaster. This part of the report only shortly presents, summarizes and discusses the strategies found. In order to get a better understanding and a full grasp of the proposed strategies, the different used reports are recommended to be read.

### 5.1. *Changes in governance*

As a initiative of the United Nations Development Policy (UNDP) the commission on Legal Empowerment of the Poor (CLEP) was established and launched its report 'Making the law work for everyone' in 2008. Aside highlighting the importance of legal empowerment for the poor, this report sets also several agenda items to reform the justice, property rights, labour and business systems, which are summarized on page 60 in (CLEP, 2008). This report also described the way these goals, should be implemented, namely by going through the following phases; agenda setting, policy formulation and legitimisation, constituency building, resource mobilization, implementation design and development of organisational capacity, planning action and monitoring progress. (CLEP, 2008:82) and by implementing the following actions; mobilization of stakeholders, legal empowerment diagnostic, action planning, pilot activities, scaling-up and institutionalizing change and the change process: (Ibid:85). This report really focuses on reforming the governance system, which is clearly seen in goals like "Recognition of a variety of land tenure, including customary rights, indigenous peoples' rights, group rights, certificates, etc., including their standardisation and integration of these practices into the legal system", "State land audits with findings published to discourage illegal taking possession of public land." and more practical examples like the "separation of the powers of land registration and public land management". So, they conclude, much in accordance with the developmental organizations, that the major constraint for "promoting a truly inclusive property-rights system" is the governance system, by stating: "success depends greatly upon comprehensively reforming the governance system surrounding property rights." (CLEP, 2008:65). However, the question is whether the justification, namely that "people living in abject poverty need immediate assistance and specially targeted interventions" (Ibid:5), of all such statements is valid for, and recognized by, the international community. State sovereignty and the suffering of the population can severely be at odds with each other. So such reports are questionable in their legitimation and also in practice because it is unclear whether it can really change the underlying power relations, which sustain (unequal) legal systems.

### 5.2. *Organisational changes within the UN*

In 2009, Scott Leckie, an expert on Housing, Land and Property (HLP) rights, made a clear call for the establishment of a Humanitarian Platform on HLP issues (Leckie, 2009). Although many UN agencies have experience with HLP rights issues, there exists no UN Directorate specifically for HLP-issues. This means that there is no "agency to design, establish, implement and coordinate a full HLP spectrum approach which ensures that all HLP rights issues are addressed"(Leckie, 2009:12). Therefore Leckie proposes to set up a Housing, Land and Property Rights Directorate (HLPRD) with the following seven departments: Policy, Legal, Housing, Land, Construction, Claims and Records. Although this plea is primarily for post-conflict situations, he states that these ideas and this organ can also be used when a natural disaster occurs.

### 5.3. *Developing protocols*

Much knowledge and experience is put into the development of protocols. One example is 'Transitional settlement and reconstruction after natural disasters', a protocol formulated by the ShelterCentre in Geneva ([ShelterCentre, 2008](#)). In this protocol, a lot of rules are developed to prevent the occurrence of housing, land and property rights issues. It also includes a working principle, specially dedicated to such issues: "Ensure rights and secure tenure for all those affected" (ShelterCentre, 2008:ii).

### 5.4. *International Standards*

In 2005, Paulo Sérgio Pinheiro finished the guidelines for Housing and Property Restitution for Refugees and Internally Displaced Persons. These became the 'Pinheiro Principles' and are "designed to provide practical guidance to States, UN agencies and the broader international community on how best to address the complex legal and technical issues surrounding housing, land and property restitution" ([Pinheiro Principles, 2005](#)). These principles are based on existing humanitarian law and state various rights concerning housing, land and property.

### 5.5. *Land mapping and titling*

To legally defend land rights (both private and communal), it is important to define boundaries and to keep records of land titles. Since 1980's the number of NGOs that were involved in helping mapping and titling population exploded. Especially in areas where indigenous people live and bio-diverse areas overlap (Stocks, 2005) but also on larger scale and in cooperation with governments efforts were made to title land, for example by the World Bank (Deininger and Binswanger, 1999). However, Neumann (1997) points out that customary law is not static, but contested and shaped historically and that the process of land reform and titling "may threaten the security of many customary rights holders" (Ibid:572). He concludes this, partly because "land registration programmes are unlikely to address the complexity and flexibility of existing land and resource tenure" and notices that in Tanzania, where land titling was going on from the 1980s "land conflicts are increasing rather than decreasing" (Ibid:573). These complex issues are in accordance with the observations of Gijs Aarts (CordAid) about problems on land titles for pastoralists; it is relatively hard to establish land rights in the formal system of the state, because they need large areas, are mobile and have unpredictable migration routes because of dependence on rain. Despite the enormous complexity, he is convinced that land rights in one way or another should be established for this marginal group, just in order to protect them from land grab.

To overcome such "complexity" problems or inequities, many scholars and NGOs promote a bottom-up approach, as the World Bank calls it the "new" approach "encouraging community managed agrarian reform based on voluntary negotiation" (Deininger and Binswanger, 1999). (Fitzpatrick, 2005:18-19) for example, sheds light on such processes by giving a detailed description of activities like, 'community-based land surveying' and 'community-based land consolidation'. Also the project costs for this processes in post-tsunami context are mentioned here. However, such approaches should not be seen as a panacea. Dik Roth knows from experience that renegotiating rights are extremely time consuming and efforts of NGOs to change land/resource allocation are often reversed to the old situation, as soon as the project ends. The risk exists that projects, which aim to re-title or re-distribute land after a natural disaster, make the legal system even more complex by creating an alternative system. Another point is that titling or creating new laws itself is not sufficient to regulate the allocation of resources. The validity in daily life depends on the recognition of the (powerful) population and institutions to enforce them. In such situations a risk exists that a bias between the ideological, institutional, social relational or daily life level, following von Benda-Beckmann *et al.* (2006) is formed. Therefore, Dik Roth pleads for an unpretentious attitude in land titling projects (Roth, 2010, personal contact).



## 5.6. Lobby and advocacy

Because "the relative economic and political power of competing interest groups and individuals often determines which claims become documented in law" (Neumann, 1997:572), many NGOs, including the interviewed Dutch organizations, assist marginalised or vulnerable groups by lobbying and advocating in order to improve their rights. An example is the [REGLAP](#) project, which has the strategy to emphasize the economic importance of pastoralists, so that governments have a rationale to respect the communal and usufruct land rights of these groups. In disaster contexts, all interviewed organisations used this strategy, mostly through local partners or special lobby and advocacy NGOs.

## 5.7. Civil society

Another strategy promoted by UN-HABITAT (2008), is the instrumentalisation of civil society. "Social movements and organizations can help increase the supply of land available to the poor." Success stories from Bangladesh, "where powerful groups have commercial interests in the development of public land, securing land rights for the poor may depend on mobilization of civil society organizations to help implement government policies that make land available to the landless" and India and Pakistan, where "NGOs have also intervened in private land markets to facilitate secure rental contracts for the poor and for women's groups."

## 5.8. Recap

This chapter enumerated and discussed several solutions proposed by scholars and UN-organisations. The solutions show that many organisations and think tanks are occupied with thinking about the theme of property rights. Not many organisations did link this to incorporate this in Disaster Risk Management-frameworks, however some suggestions can be used by NGOs to incorporate property rights issues in their policies, such as protocols made by the ShelterCentre, in order to be prepared for the expected difficulties concerning property rights issues in a disaster context. Furthermore engaging lobby and advocacy groups seems to be a good approach, because they can address the root causes of unequal property right regimes. Some solutions proposed such as land mapping, land titling and developing international standards, do not seem fruitful. This because it deals more with how things *should* be, instead of dealing with the actual situation in many countries, possibly resulting in a bureaucratic approach, with low impact. Thereby practice showed that many efforts concerning re-titling have no long-term impact, because many titling efforts are reversed as soon NGOs leave. Furthermore the idea to change governance in a country is highly questionable in terms of legitimization. Therefore, it can be concluded that some solutions can be used by NGOs to incorporate in their DRM framework. But it's also clear that much more empiric research should be conduct to find solutions.

## 6. Conclusions and recommendations

Examining the 2004 Tsunami and the 1980s drought in Sudan made clear that the daily practice of the property rights and the way property rights were enforced, affected the recovery in the aftermath of a disaster. Especially the 2004 Tsunami showed several problems as a result of legal pluralism, the nature of the property rights and malfunctioning of the legal system. Together this caused delay or inequities in inheritance, land tenure, relocation and restitution in the aftermath of disasters. Also before a disaster, property rights are important; the case of the 2004 Tsunami, made clear that mismanagement of mangroves lessened the protective capacity against tsunamis. In the case of the 1983-1985 droughts in Sudan, pastoralists were more prone to destitution because the Government of Sudan did not respect the communal rights of pastoralists and used key grazing land or blocked migration routes of pastoralists, because of the establishment of vast (irrigated) agricultural schemes.

A number of things can be conducted from the case studies. Firstly, relief and recovery are hampered by issues concerning land and property rights. One of the reasons is that disasters can kill titleholders and destroy land and property, therefore implying questions of restitution, relocation and inheritance. Unclear and unenforced rights in disaster situations can lead to land grab and poor restitution. This can hamper survivors to recover from disasters, because rebuilding houses and economic activity are delayed due to unclear access to land and insecure properties. Secondly, disasters can damage the legal infrastructure for example by killing government officials and traditional record keepers, destroying records and institutions regulating land rights and thereby causing a lack of information, thus slowing down recovery efforts. Thirdly, in pre-disaster situations, clear land or resource rights and strict legal enforcement can lessen disaster impact. For example, rights can prevent people from living in disaster prone areas or induce natural resource management that is focused more on disaster risk reduction.

The interviewed development and humanitarian organisations are aware of the relationship between property rights and disasters. Especially acknowledging the importance of clear land rights for a quicker recovery. However, because of the complexity and high political connotations, the Dutch NGOs are reluctant to really address the land and property rights issues in their aid activities. The reasons for this are that they want to remain neutral or they have to acknowledge that the problems concerning land and property rights are beyond the scope of the organisation. Therefore, the three Dutch organisations interviewed are not involved in permanent housing or providing (temporary) land and property rights. These issues are firmly designated as the responsibility of the government, which is in odds with the fact that sometimes the 'same' government is considered a root cause of the legal vulnerabilities the population face.

However, these vulnerabilities are not just solved by adjusting certain static laws or giving titles, as some scholars and NGOs are pleading for. Then, the complexity of property rights regimes in daily life and the discrepancy between the formal (*de jure*) and the practice of daily life (*de facto*) is overlooked. Often legal pluralism exists and the discrepancy is caused by weak enforcement of these laws, a lack of legal institutions, internal power struggle, political ideologies or corruption. For example, institutions entrusted with the enforcing and securing the rights can fail or be corrupted, than even in a case of equitable rights in legal law still insecure access to land and unclear inheritance or restitution can be the case.

Also promoting local laws cannot be regarded as *the* solution, because such systems can also fall short in including all (ethnic) groups. Hereby, it's important to notice that the legal frameworks themselves are not static, but are subject to change and that often the vulnerabilities of groups or individuals and the political and economic power of others are *expressed* in laws and or institutions. Legal frameworks are hijacked by (powerful) people or groups, often unregarded which type of legal framework, in order to execute power, claiming economic assets and thereby making other groups more vulnerable towards disasters. Because of the aforementioned factors analysing land and property rights and their impact, concerning disaster prevention and recovery, is difficult,

because it is complex and contains highly political factors.

Therefore the main strategy of NGOs is not getting themselves directly involved, in order to keep their credibility for local governments, instead they are passing on issues with regards to land rights to special lobby and advocacy NGOs. These special groups advocate for tenure and restitution insecure groups in different arenas, in order to promote their importance and give those people a political voice.

Other strategies for Disaster Risk Management concerning land and property rights, mentioned by experts or other humanitarian and developmental organisations in the Recovery period are: involvement of the community in mapping pre-disaster assets, mapping the pre-disaster land rights, facilitating dispute resolution over multiple claims, facilitating land consolidation processes and assisting in the (plural) legal process, e.g. by simply providing information about restitution and relocation procedures. Activities to mobilize civil society can take place in the Disaster Risk Reduction period as well as in the Recovery period. The aim is to demand government policies to change or promises to be implemented so more tenure security for the landless or poor is obtained. Other strategies to deal with property rights are to change governance processes, as advocated by the Commission on Legal Empowerment of the Poor, and the establishment of protocols and international agreement on principles and laws, such as the Pinheiro Principles.

Following the lessons learned from land policies, the legal complexity and the strategies of the Dutch NGOs, incorporation of changing the property rights regimes as a strategy in the Disaster Risk Management-framework is not recommended. For NGOs it seems wiser to have an unpretentious attitude towards changing the property rights regimes before and after a natural disaster. Firstly, because it is likely that property rights regimes only become more complex than they were as the legal system cannot be easily replaced. Secondly, because an 'interventionists' approach as proposed by the CLEP, is highly questionable in terms of legitimization. Thirdly, changing the formal system, for example by large-scale titling the land, is not a guarantee that daily practice and its legal inequalities change, so writing principles alone is not useful, when they are not enforced. And finally because empirical research provided evidence that besides western legal system, many legal systems exist that are very efficient in managing natural resources.

More promising strategies in order to incorporate property rights in Disaster Risk Management efforts, are the strategies that try to address the power relations between people, thus empowering vulnerable groups to shape their own property rights regimes, rather than try to replace or force changes in existing property rights regimes. This can be done by simply giving certain groups information about procedures in a legal system, but also by facilitating the renegotiation of property rights. Addressing power relations also includes the aforementioned lobbying and advocating. All these strategies are time consuming and therefore ask a lot of patience. For most donors such strategies are not attractive, they rather give for immediate and physical results, like shelter and sanitation. The aforementioned solutions may probably be more efficient in preparing for and recovering from natural disasters, because they address the more fundamental and complex constraints surrounding property rights, such as coexisting property rights regimes, weak enforcement, land grab and violations of customary land rights. In order to get a more profound understanding of the possibilities to shape property rights regimes towards a more equal distribution of property rights, this paper recommends to conduct more empirical research that topic. Because only that type of research can reveal the complex daily manifestations of property rights.

## 7. Acknowledgements

First I would like to thank my supervisor Jeroen Warner, who motivated me, helping me make my vague plans into a more concrete research and made all the time for me during this research. Secondly, I would like to thank Dik Roth, especially for the interesting conversation we had about this topic. He made me reflect on my own writings and provided a lot of context information, thereby making it a much more balanced paper. Thirdly, I want to thank Gijs Aarts, John Buijs and Eelko Brouwer, for providing me a lot of insight in the way NGOs work. I now realize much better the difficult decisions they have to make when setting up relief/developmental programs. Also I owe a lot to Leendert van Wolfswinkel, Freddy van Hulst and my mother, Janneke, who critically went through my report, making it much more structured and readable. Beside these specific acknowledgements, I want to give thanks to God, my heavenly Father. Praising Him for everything He does in my life, also for all the processes resulting in this paper.

## 8. References

### 8.1. Literature

- van Aalst, M. K., 2006, *The impacts of climate change on the risk of natural disasters*, Disasters, Vol. 30, Issue 1, pp. 5-18
- Adger, W. N., Huq, S., Brown, K., Conway, D. and Hulme, M., 2003, *Adaptation to climate change in the developing world*, Progress in Development Studies, Vol. 3, pp. 179-195
- Adger, W. N. and Tutrell, C., 2000, *Property rights and the utilisation of wetlands*, Ecological Economics, Volume 35, Issue 1, pp. 75-89
- Ahmed, A. G. M., Azeze, A., Babiker, M. and Tsegaye, D., 2002, *Post-droughts recovery strategies among the pastoral households in the Horn of Africa; A review*, Development Research Report Series no. 3, ISSN 1608-8875
- Anderson M. and P. Woodrow, 1989, *A Framework for Analyzing Capacities and Vulnerabilities, Rising from the Ashes*, Development Strategies in Times of Disaster
- ANP, Algemeen Nederland Persbureau, 2010, *Hulporganisaties leveren enorme inspanningen, Haïti grootste uitdaging ooit*, <http://www.perssupport.nl/pressrelease/detail.do?pressId=43083&type=today&searchKey=5fb54d44-7194-11df-b206-4381cfa945aa&languageId=NL&pageIndex=1>, last visit: 7 June 2010
- Baas, S., Ramasamy, S., DePryck, J.D. and Battista, F., 2008, *Disaster Risk Management Systems Analysis, A guide book*, Environment, Climate Change and Bioenergy Division, Food and Agriculture Organisation of the United Nations, Rome, Italy
- Babiker, M., 2009, *Historical Overview of Land Policy in Sudan*, In: *Environment and Conflict in Africa, Reflections on Darfur*, Leroy, M. (ed.), University for Peace, Africa Programme, Addis Ababa, Ethiopia, ISBN 978-9977-925-63-9, pp. 242-252
- Bascom, J., 1993, *The Peasant Economy of Refugee Resettlement in Eastern Sudan*, Annals of the Association of American Geographers, Vol. 83, Issue 2, pp. 320-346
- Behnke, R., 1994, *Natural Resource Management in Pastoral Africa*, Development Policy Review, Volume 12, Issue 1, pp. 5-28

- von Benda-Beckmann F, von Benda-Beckmann K. and Wiber M. , 2006, *The Properties of Property*, In: *Changing Properties of Property*, von Benda-Beckmann F., von Benda-Beckmann K. and Wiber M. (eds.), Berghahn, Oxford, ISBN 978-1-84545-139-4, pp. 1-40
- Berkes, F., 1996, *Social systems, ecological systems and property rights*, In: *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, Hanna, S., Folke, C. and Mäler, K.G. (eds.), Island Press, Washington, DC, ISBN 1-55963-490-1, pp. 87-110
- Blaikie, P.M., Cannon, T., Davis I. and Wisner, B., 1994, *At Risk : natural hazards, people's vulnerability, and disasters*, Routledge, London, ISBN 0-415-08476-8
- Boudreaux, K., 2006, *Property Rights and Resource Conflict in the Sudan*, In: *Realizing Property Rights*, de Soto, H. and Cheneval, F. (eds.), Ruffer & Rub, Berne, Switzerland, ISBN 978-3-907625-25-5, pp. 68-71
- Breman, H. and de Wit C.T., 1983, *Rangeland Productivity in the Sahel*, Science 221,4618
- Brown, O., Crawford, A. and Hammill, A., 2006, *Natural Disasters and Resource Rights : Building resilience, rebuilding lives*, International Institute for Sustainable Development, Winnipeg, Canada
- BRR, 2005, *Aceh and Nias one year after the tsunami, The recovery effort and way forward*, A joint report of the BRR and International Partners, <http://www.adb.org/Documents/Reports/Tsunami/aceh-nias-1-year-after.pdf> , last visit July 2010
- Claessens, S. and Laeven, L., 2003, *Financial development, property rights and growth*, The Journal of Finance, Volume 58, Issue 6, pp. 2401-2436
- Dayton-Johnson, J., 2004, *Natural Disasters and Adaptive Capacity*, Working Paper no. 237, OECD Development Centre, Issy-les-Moulineaux, France
- Dahdouh-Guebas, F., Jayatissa, L.P., Di Nitto, D., Bosire, J.O., Lo Seen D. and Koedam, N., 2006, *How effective were mangroves as a defence against the recent tsunami?*, Current Biology, Volume 15, Issue 12, pp. 443-447
- Dekker, H.A.L., 2003. *The Invisible Line: Land Reform, Land Tenure, Security and Land Registration*, Ashgate Publishing Limited, Hants, United Kingdom, ISBN 0-7546-3637-2
- Etkin, D., 1999, *Risk transference and related trends: driving forces towards more mega-disasters*, Global Environmental Change Part B: Environmental Hazards, Volume 1, Issue 2, pp. 69-75
- Fan, L., 2006, *The struggle for Land Rights in Post-Tsunami and Post-Conflict Aceh, Indonesia*, Land Policies and Legal Empowerment of the Poor, The World Bank
- Feder, G. and Feeny, D., 1991, *Land Tenure and Property Rights: Theory and Implications for Development Policy*, World Bank Economic Review, Oxford University Press, vol. 5, Issue1, pp. 135-153
- Fitzpatrick, D., 2005, *Restoring and Confirming Rights to Land in Tsunami-Affected Aceh*, UNDP/OXFAM Report

- Fitzpatrick, D., 2008, *Women's Rights to Land and Housing in Tsunami-Affected Indonesia*, OXFAM international policy and advocacy Unit, policy paper
- Frerks, G. , Hilhorst D. and Moreyra A., 1999, *Natural Disasters, A Framework for Analysis and Action*. Report For MSF-Holland, Wageningen Disaster Studies
- Harper, E., 2010, *Promoting legal empowerment in the aftermath of disaster: an evaluation of post-tsunami legal assistance initiatives in Indonesia* In: *Legal and Governance Reform: Lessons Learned, No. 2, Legal Empowerment: Practitioner's Perspectives*, Golub, S. and McNerney, T. (eds.), International Development Law Organization, Rome, Italy, ISBN 978-88-96155-03-5, pp. 157-178
- Haug, R., 2000, *Livelihood security among pastoralists in Northern Sudan: Post-hunger development in a country at war*, Noragric working paper no. 19, Centre for International Environment and Development Studies of the Agricultural University of Norway, NORAGRIC, ISSN 0809-4934
- Hazell, P., 1999, *Public Policy and Drought Management in Agropastoral Systems*, In: *Property Rights, Risk, and Livestock Development in Africa*, McCarthy, N., Swallow, B., Kirk, M., and Hazell, P. (eds.), International Food Policy Research Institute, ISBN 0-89629-339-6, pp. 86-101
- Heffernan, C. and Rushton, J., 2000, *Restocking: A critical evaluation*, *Nomadic Peoples*, Vol. 4, Issue 1, pp. 110-124
- Holmgren, M. and Scheffer, M., 2001, *El Niño as a window of opportunity for the restoration of degraded arid ecosystems*, *Ecosystems*, Vol. 4, Issue 2, pp. 151-159
- Keim, 2008, *Building Human Resilience: The Role of Public Health Preparedness and Response As an Adaptation to Climate Change*, *American Journal of Preventive Medicine*, Vol. 35, Issue 5, pp. 508-516
- Kibreab, G., 1997, *Environmental Causes and Impact of Refugee Movements: A Critique of the Current Debate*, *Disasters*, Vol. 21, Issue 1, pp. 20-38
- Kirk. M., 1994, *Changes in land tenure in the Butana*, *Animal Research and Development*, Vol. 39, pp. 82-95
- von Kotze, A. and Holloway, A., 1996, *Reducing Risk: Participatory learning activities for disaster mitigation in Southern Africa*, International Federation of Red Cross and Red Crescent Societies, Durban, South Africa
- Leckie, S., 2005, *The great land theft*, *Forced Migration Review*, Special Issue July 2005, pp. 15-16
- Leckie, S., 2009, *Leader of the Pack: Who Will Take the Lead on Post-Conflict HLP Issues?*, In: *Uncharted territory: Land, conflict and humanitarian action*, Pantuliano, S. (ed.), Humanitarian Policy Group, Overseas Development Institute, London, Practical Action Publishing, ISBN 978-1853396878, pp. ??-??
- LeLoup, 2004, *Investing in Maintaining Mobility in Pastoral Systems of the Arid and Semi-Arid Regions of Sub-Saharan Africa, An ALive Policy Note*, ALive, Pro-Poor Livestock Initiative of FAO
- Manyena, S. B., 2006, *The Concept of Resilience Revisited*, *Disasters*, Vol. 30, Issue 4, pp. 434-450
- Markakis, J., 2009, *Conflict in the Horn of Africa* in *Environment and Conflict in Africa, Reflections on Darfur*, Leroy, M. (ed.), University for Peace, Africa Programme Addis Ababa, Ethiopia, ISBN 978-9977-925-63-9, pp. 54-59

- McCarthy, N., Swallow, B., Kirk, M. and Hazell P. eds., 1999, *Property rights, risk, and livestock development in Africa*, International Food Policy Research Institute, Washington D.C., ISBN 0-89629-339-6
- Munasinghe, M., 2007, *The importance of social capital: Comparing the impacts of the 2004 Asian Tsunami on Sri Lanka, and Hurricane Katrina 2005 on New Orleans*, *Ecological Economics*, Vol. 64, Issue 1, pp. 9-11
- North, D.C, 1990, *Institutions, institutional change and economic performance*, Cambridge: Cambridge University Press
- Olsson, L., 1993, *On the causes of famine: drought, desertification and market failure in the Sudan*, *Ambio*, Vol. 22, pp. 395-404
- Oxfam, 2010, *Land rights in Africa, key principles*, [http://www.oxfam.org.uk/what\\_we\\_do/issues/livelihoods/landrights/key\\_principles.htm](http://www.oxfam.org.uk/what_we_do/issues/livelihoods/landrights/key_principles.htm)  
last visit: 21 July 2010
- Palmer, R., 2007, *Literature Review of Governance and Secure Access to Land*, North South Consultants Exchange
- Parker, R. S., 2000, *Single-family Housing: The Window of Opportunity for Mitigation Following Natural Disaster* In: *Managing Disaster Risk in Emerging Economies*, Kreimer, A. and Arnold, M. (eds.), World Bank, Washington, pp. 80-84
- Pinheiro Principles, 2005, United Nations Principles on Housing and Property Restitution for Refugees and Displaced Persons, COHRE, <http://www.unhcr.org/ua/img/uploads/docs/PinheiroPrinciples.pdf>, last visit 21 July 2010
- Rodriguez, J., Vos, F., Below, R., Guha-Sapir, D., 2009, *Annual Disaster Statistical Review 2008, The numbers and trends*, Centre for Research on the Epidemiology of Disasters
- Roth, D., 2009, *Property and Authority in a Migrant Society: Balinese Irrigators in Sulawesi, Indonesia*, *Development and Change*, Vol. 40, Issue 1, pp. 195-217
- Roth, D., 2010, Researcher and lecturer at the Law and Governance Group (Wageningen University), face to face conversation 08-09-2010
- ShelterCentre, 2008, *Transitional settlement and reconstruction after natural disasters*, Field Edition, <http://www.sheltercentre.org/sites/default/files/TransitionalSettlementandReconstructionAfterNaturalDisasters.pdf> last visit 21 July 2010
- Schipper, L. and Pelling, M., 2006, *Disaster risk, climate change and international development: scope for, and challenges to, integration*, *Disasters*, Vol. 30, Issue1, pp.19-49
- Stanganelli, M., 2008, *A new pattern of risk management: The Hyogo Framework for Action and Italian practise*, *Socio-Economic Planning Sciences*, Vol. 42, pp. 92–111
- Thomalla, F., Downing, T., Spanger-Siegfried, E., Han, G. and Rockström, J., 2006, *Reducing hazard vulnerability: towards a common approach between disaster risk reduction and climate adaptation*, *Disasters*, Vol. 30, Issue1, pp. 39-48
- Toulmin, C., 1986, *Pastoral livestock losses and post-drought rehabilitation in sub-Saharan Africa: policy options and issues*, *African Livestock Policy Analysis*, Network Paper No. 9, Addis Ababa: International Livestock Center for Africa

UNEP, 2005, *After the Tsunami, Rapid Environmental Assessment*, United Nations Environment Programme, [http://new.unep.org/tsunami/reports/TSUNAMI\\_INDONESIA\\_LAYOUT.pdf](http://new.unep.org/tsunami/reports/TSUNAMI_INDONESIA_LAYOUT.pdf), last visit: 21 July 2010

UNISDR, 2010, United Nations International Strategy for Disaster Reduction, <http://www.unisdr.org/eng/library/lib-terminology-eng%20home.htm>, last visit 21 July 2010

UNCHR, 1998, Guiding Principles on Internal Displacement, <http://www.unhcr.org/cgi-bin/texis/vtx/search?page=search&docid=47949b3f2&query=Guiding%20Principles%20on%20Internal%20Displacement> last visit 21 July 2010

de Waal, A., 1988, *Refugees and the Creation of Famine: The Case of Dar Masalit, Sudan*, Journal of Refugee Studies, Vol. 1, Issue 2, Oxford University Press

de Waal, A., 1989, *Famine Mortality: A Case Study of Darfur, Sudan 1984-5*, Population Studies, Vol. 43, Issue 1, pp. 5-24

WCDR, 2005, *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disaster*, adopted by World Conference on Disaster Reduction, A/CONF.206/6 , <http://www.un-documents.net/hfa.htm> last visit: 21 July 2010

Williams, S., 2006, *Getting Back Home. Impact of Property Rights of the Indian Ocean Earthquake-Tsunami 2004*, New Issues in Refugee Research, Working Paper no. 122, UNHCR, Geneva

Wisner, B., Blaikie, P., Cannon, T. and Davis, I., 2004, *Access to resources and coping in adversity*, In: *At risk: natural hazards, people's vulnerability and disasters*, London, Routledge, pp. 87-124

Wojkowska, E. and Cunningham, J., 2010, *Justice reform's new frontier: engaging with customary systems to legally empower the poor* In: *Legal and Governance Reform: Lessons Learned, No. 2, Legal Empowerment: Practitioner's Perspectives*, Golub, S. and McInerney, T. (eds.), International Development Law Organization, Rome, Italy, ISBN 978-88-96155-03-5, pp. 93-112

Wong, P. P., 2009, *Rethinking post-tsunami integrated coastal management for Asia-Pacific*, Ocean & Coastal Management, Volume 52, Issue 7, pp. 405-410

Worldbank, 2010, <http://data.worldbank.org/country/indonesia> last acces 21 July 2010

Yodmani, S., 2001, *Disaster Risk Management and Vulnerability Reduction: Protecting the Poor*, Paper Presented at The Asia and Pacific Forum on Poverty Organized by the Asian Development Bank

## 8.2. Interviews

John Buijs , 2010, Deskofficer Emergency Relief at ZOA, face-to-face interview 09-06-2010

Eelko Brouwer, 2010, Disaster management advisor and International Relief Coordinator, face-to-face interview 15-06-2010

Gijs Aarts, 2010, Project officer Emergency Relief and Recovery at CordAid, face-to-face interview 07-07-2010