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# The paradox of addressing recurrent floods as disasters

## A work in progress

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### Abstract

Floods negatively impact food insecure and economically poor people around the world on a recurrent basis, straining livelihoods and deteriorating health and nutrition. Despite this well-established reoccurrence, the consequences of floods are still often treated as out-of-the-normal events that require out-of-normal humanitarian response. However, people living in the areas, where recurrent floods impact, do not perceive the floods as out-of-the-normal. They are recurrent and part of life. This project analyses the paradox of how floods are addressed and categorised on the one hand, and perceived – by the people living in the areas affected by the floods – on the other.

While development actors normally work to help communities and people become more resilient, reduce vulnerabilities and strengthen livelihood options, humanitarian actors step in to save and protect lives and livelihoods, provide food, shelter etc., in disaster situations. At present, the two still often work independently of each other and within different frameworks. Development actors have long-term aims often framed around the United Nations' development goals, while humanitarian actors work to alleviate suffering in the short term guided by the humanitarian principles. How these different aims translate into decisions on the type of aid provided is an area of interest to the project. We hope to provide inputs to bridging the humanitarian-development divide with the purpose of delivering needs based aid to help food insecure and economically poor people become better off.

This project looks at areas affected by recurrent hazards in Central America, with a focus on floods. We wish to understand how the reoccurrence of the events are reflected in response operations (whether they are offered by development, humanitarian, disaster risk reduction or dual mandate organisations) and why some of the 'responding' organisations and donors still treat recurrent, seasonal flood situations as out-of-the-normal events.

We do this by conducting semi-structured interviews with 1. People who work with United Nation agencies and non-governmental organisations (NGO's) that work in areas affected by recurrent floods in normal times, and 2. People who work with UN agencies and NGOs that have responded to the floods as disasters/emergencies, 3. National and regional emergency management agencies, 4. donors, and 5. By conducting focus groups in communities affected by recurrent floods.

### Introduction

This paper presents a project that is starting up as a collaboration between the World Food Programme and the national disaster management agencies in the Central American countries of Guatemala, Honduras and Nicaragua and the emergency and risk management department at University College Copenhagen. The three countries in the project have the following ranks out of 181 countries on the Global Climate Risk Index 2017 (Germanwatch 2016): 1 (Honduras, meaning Honduras has have been identified as the country most affected by extreme weather events in the 20-year period from 1996-2015), 4 (Nicaragua), 9 (Guatemala). The Climate Risk Index may serve as a red flag for already existing vulnerability that may further increase in regions where extreme events willing become more frequent or more severe due to climate change' (Germanwatch 2016), which is the case in Central America.

Floods negatively impact food insecure and economically poor people around the world on a recurrent basis, and strain livelihoods and deteriorate food and nutrition security<sup>1</sup>. Despite this well-established reoccurrence, the consequences of floods are still often treated as out-of-the-normal events that require out-of-normal response. However, people living in the areas, where recurrent floods impact, do not perceive the floods as out-of-the-normal. They are recurrent and part of life.

## Terminology

When we read about disasters, disaster management and disaster risk reduction, we often come across the term 'natural disaster'. I am surprised to see that so many, in academia, NGO's, journalists, politicians etc. still talk about natural disasters<sup>2</sup>. Natural hazards have the potential to bring about a disaster, but the disaster is not the same as the event that (among other things) causes it, and there is nothing natural about disasters. The United Nations Office for Disaster Risk Reduction (UNISDR) defines a hazard as 'a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation' (UNISDR 2017a). That '*may* cause loss of life....'. It does not necessarily do so.

The concept of vulnerability is often used to explain why natural hazards in some instances lead to a disaster and in others not. UNISDR defines vulnerability as 'the conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.' (UNISDR 2017a). So better managed physical planning, infrastructure, environments and ecosystems, more equal and developed societies, are, *ceteris paribus*, less vulnerable to the impacts of hazards. Susceptibility to the negative impact of hazards, on average, decreases with development, and richer, more developed and equal countries are less susceptible to the negative consequences of natural hazard impact (United Nations 2015 and UNISDR 2017b). In addition, within countries, the poorest often suffer disproportionately from natural hazards and resulting disasters. Therefore, the consequences the same hazard (or same type of and intensity hazard) can vary, and do vary, depending on how well prepared<sup>3</sup> the area stricken by the hazard, and the people living it, are. This holds if we compare countries but also within countries, where certain groups are more vulnerable to the negative consequences of natural hazards (Bradshaw 2013 and 2016)<sup>4</sup>.

UNISDR defines a disaster as 'a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts<sup>5</sup> (UNISDR 2017a). I will not discuss the definition of what a disaster is here<sup>6</sup>, but wish to highlight the part of the

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<sup>1</sup> "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". (World Food Summit, 1996)

<sup>2</sup> Also recognising that the United Nations General Assembly designated the 1990s as the International Decade for Natural Disaster Reduction in December 1989.

<sup>3</sup> Preparedness here means all those things that can be carried out before the hazard strike, to prevent and mitigate its consequences.

<sup>4</sup> In addition to wealth groups, gender, age, religion and livelihood for instance, are relevant categories to take into account when trying to understand how hazards might impact and how it varies across different groups.

<sup>5</sup> In 2009, the UNISDR definition included as part of the definition of a disaster that it was a 'sudden calamitous event', thereby excluding slow onset hazards such as droughts.

<sup>6</sup> This has been extensively debated in Quarantelli 1998 Perry R.W. & Quarantelli E. L. 2005.

definition that defines a disaster as *the consequence of not being able to cope with a hazard*. This means that a hazard has the potential to bring about loss, while a disaster is defined by that loss occurring. It also means that a disaster is not 'an event' and that it does not cause effects. The effects are what we call a disaster (Bradshaw 2013). Therefore, when we talk about disasters also in the context of natural hazards, they are not something that 'happen' and they do not 'hit us'. They are the result of low performance and inequality in the areas of 'physical, social, economic and environmental factors and processes' (from UNISDR's definition of vulnerability). We cannot stop the hurricane from developing, but we can reduce the negative consequences they have if we work on the three dimensions of exposure, vulnerability and capacity to respond.

Disasters are not natural. They are unnatural. They are the result of us humans failing to deliver on a series of commitments (Hyogo Framework for Action, Millennium Development Goals). In addition, disasters rarely take us by surprise<sup>7</sup>. Often disaster situations are warned for well in advance. People working for humanitarian and development aid programmes in Central America for instance, know the areas they work in. They know, where people live in unsafe areas; they know the hurricane track; they know, which areas are traditionally affected by different types of hazards; they know, where the poor and food and nutrition insecure population live; they know, which areas were affected by hazards last year and the year before; they know what the main livelihoods of the poor and food and nutrition insecure population are, and they know, what the expected impact of a natural hazards is likely to be for the poor population. They use advanced food and nutrition security early warning systems to monitor weather (and market) hazards, and analyse their potential impact on the food and nutrition security situation in the following months (for instance FEWS NET, FAO and WFPs VAM and VAM-m). So most times, they know what is going to happen. They know the situation in the communities and how a natural hazard will stress the livelihoods and food and nutrition security situation of the (poor) people living in the area<sup>8</sup>.

Several organisations, humanitarian and development organisations, have worked to improve the food and nutrition security situation of poor people in Central America for many years. Often with natural hazards being central to the explanation of why these people are food and nutrition insecure and poor. Some national staff in the offices have been there since I started working in the region almost 20 years ago. So, the organisations working with food and nutrition security in areas where people are vulnerable to natural hazards have a very good understanding of the general contexts and situation. They know the culture and the history.; what has been done where and with whom in the past; what is happening with whom right now; and they know the natural hazard and disaster history. They know the reality in the communities: how people live; how they make an income; how they get food; what the infrastructure looks like (in broad terms); employment opportunities; market functioning etc.

They also know which other organisations work in the same or related areas (thematic and geographical), and they collaborate and coordinate. They have pooled resources and they have conducted assessments in the field together. They know the government priorities and programmes and have contact to the different ministries representations in the field (eg. municipalities, health posts, agricultural extension). They also produce or have access to regular reports and mapping that keep them up to date on the current and projected food insecurity, analysing a whole series of parameters that could affect the food and nutrition

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<sup>7</sup> There are of course exceptions.

<sup>8</sup> Or of the area. In Central America it is common for poor people in some areas to migrate to work in cash crop harvest (coffee and sugar for instance) in other areas of the country/neighbouring countries.

security situation in the coming one to six months<sup>9</sup>. These people know, where the dry corridor of Central America is located, they know the months of the lean and ‘hunger’ season, and they know which areas suffer from floods, normally. This information is shared in seasonal calendars that have been elaborated for the various livelihood zones<sup>10</sup> in each country (Figure 1).

Figure1: Seasonal Calendar for Honduras’ livelihood zone 1

*Zone 1: Seasonal calendar*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Seasons</b>												
Rainy season												
Dry season												
Lean season												
<b>Crops</b>												
Cassava												
Plantain												
<b>Other</b>												
Fishing												
Tourism	peak			peak								peak
Peak staple food prices												
<b>Hazards</b>												
Flooding												
High surf												
<b>Legend</b>												

Honduras livelihood zone description, 2014

### The problem

According to Covello and Merkhofer (1994, p. 20), ‘risk is, at a minimum, a two-dimensional concept involving: 1) the possibility of an adverse outcome; and 2) uncertainty over the occurrence, timing, or magnitude of that adverse outcome.’ In the case of recurrent hazards, the uncertainty dimension of the risk is minimal. There are areas of the countries where floods (and droughts) occur every year (as seen in figure 1).

The problem with addressing recurrent hazards as disasters is that the response is likely to be a short-term humanitarian intervention and not a longer-term intervention that addresses the underlying causes of the situation and strengthens resilience. While development actors normally work to help communities and people become more resilient, reduce vulnerabilities and strengthen livelihood options, humanitarian actors step in to save and protect lives and livelihoods, provide food, shelter etc., in disaster situations. The two sectors still often work independently of each other and within different frameworks. Development actors have long-term aims often framed around the United Nations’ development goals, while humanitarian actors work to alleviate suffering in the short term guided by the humanitarian principles.

So when the consequences of recurrent hazards are treated as disasters, the situation of the people living in the areas exposed and vulnerable to recurrent floods will not change because of the intervention, and they will not be able to better withstand the next flood. In Central America people working in development and humanitarian aid say that 80 per cent of a disaster situation is (should be) dealt with before the disaster develops (Interview Honduras). This perception is supported by studies that show that ‘Addressing underlying disaster risk factors through disaster risk-informed public and private investments is more cost-

<sup>9</sup> In the case of FEWS NET, building on the expertise of its own staff in the region but also drawing on the expertise of the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), US Department of Agriculture (USDA), and US Geological Survey (USGS).

<sup>10</sup> FEWS NET has elaborated livelihood zone maps and analysis for the three countries in this project. Available at: <http://www.fews.net/central-america-and-caribbean>

effective than primary reliance on post-disaster response and recovery, and contributes to sustainable development’ (United Nations 2015).

### Next steps

This project intends to analyse the paradox of how floods (and droughts) are addressed, categorised and financed by United Nations’ (UN) agencies, NGO’s and governments on the one hand, and how they are perceived by the people living in the areas affected by the floods – on the other. We do this because we think that this interdisciplinary and intersectoral research can be instrumental in addressing and getting more attention to the challenges people facing recurrent natural hazards have, and increase donor focus on the need to address underlying disaster risk factors.

We will look at how the different aims of the development and humanitarian sectors translate into decisions on the type of aid provided. We hope to provide inputs to bridging the humanitarian-development divide with the purpose of delivering needs based aid to help food insecure and economically poor people become better off.

The project looks at areas affected by recurrent hazards in Central America, with a focus on floods. We wish to understand how the reoccurrence of the events are reflected in response operations (whether they are offered by development, humanitarian, disaster risk reduction or dual mandate organisations) and why some of the ‘responding’ organisations and donors still treat recurrent, seasonal flood situations as out-of-the-normal events.

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