Language matters: Dangers of the “natural disaster” misnomer

This item was submitted to Loughborough University’s Institutional Repository by the/an author.


Additional Information:

- This paper is a contribution to the 2019 edition of the Global Assessment Report on Disaster Risk Reduction (GAR 2019).

Metadata Record: https://dspace.lboro.ac.uk/2134/38174

Version: Published

Publisher: UN Office for Disaster Risk Reduction (UNDRR)

Rights: This work is made available according to the conditions of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) licence. Full details of this licence are available at: https://creativecommons.org/licenses/by-nc-nd/4.0/

Please cite the published version.
Language Matters: Dangers of the “Natural Disaster” Misnomer

If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success. When affairs cannot be carried on to success, proprieties and music do not flourish.

Confucius, The Analects, a. 475 BC – 221 BC

Ksenia Chmutina,
School of Architecture, Building and Civil Engineering, Loughborough University,
Loughborough, UK

Jason von Meding,
Florida Institute for Built Environment Resilience, University of Florida,
Gainesville, USA

Lee Bosher,
School of Architecture, Building and Civil Engineering, Loughborough University,
Loughborough, UK
1. Introduction

On 1 November 1755, Lisbon experienced a massive earthquake. The impacts were devastating. It is considered to be the first modern disaster, occurring as it did in a time of debate around modernity, progress, conflicts, intellectual freedom and political shift. The traditional relationship between Church and State had been gradually eroded, and an emphasis on the ability and capacity of “Man” to use reason was increasing (Dynes, 2000). In a letter to Voltaire in 1756, Rousseau described the disaster as something more than an earthquake, noting “that nature did not construct twenty thousand houses of six to seven stories […], and that if inhabitants of this great city were more equally spread out and more lightly lodged, the damage would have been much less and perhaps to no account” (in Master and Kelly, 1992, p.110).

Over 250 years later, despite unmistakable human complicity in each subsequent disaster, the idea that disasters are simply part of the natural state of affairs remains pervasive. This is reflected in the frequent use of the expression “natural disaster”.

A segment of the academic community argues that the expression “natural disaster” is a misnomer. Over the past 40+ years scholars have questioned how “natural” so called “natural disasters” actually are (e.g. Ball, 1975; Glantz, 1977; O’Keefe et al., 1976; Oliver-Smith, 1986; Cannon, 1994; Smith, 2005, Bosher 2008, Chmutina et al., 2017), explaining how hazards turn into disasters and the role that vulnerability plays in this process. Ultimately, they emphasise the fact that research continues to show us how disasters are socially produced.

Whilst a hazard (e.g. earthquakes, droughts, floods, storms, landslides and volcanic eruptions) cannot be prevented, disasters can be. Natural hazards lead to deaths and damages – i.e. disasters – because of human acts of omission and commission rather than because of a natural process. Extensive literature has explored how hazards turn into disasters; for example Kolawole (1987) used the example of a drought in Northeast Nigeria; Gaillard et al. (2007) pointed to a typhoon in the Philippines; and Youngman (2015) explained how a hurricane turned into a disaster in New Orleans. Literature is replete with examples that show that a disaster does not happen unless people are vulnerable due to marginalisation, discrimination, and inequitable access to resources, knowledge and support. These vulnerabilities are further (intentionally or unintentionally) enhanced by deforestation, rapid urbanisation, environmental degradation, and climate change.
The fact that we need to understand people’s vulnerability in order to fully explain – and therefore prepare for and prevent - disasters, has been explored from numerous disciplinary angles. Some have emphasised the role of regulations and building codes (e.g. Rahman, 2018; Chmutina and Bosher, 2015), urban planning (Bull-Kamanga et al., 2003), risk management and awareness raising (e.g. Mora, 2009), politics, governance and media (e.g. Gould et al., 2016), and development, growth and culture (e.g. Bankoff, 2001; Ward and Shively, 2017) in reducing vulnerability and therefore disaster risk.

In this paper we examine International non-governmental organisations (INGOs) and Intergovernmental organisation (IGOs) literature that utilises the expression “natural disaster”. We look at how the expression is used, discuss the reasons why it is problematic and ultimately argue that by continuously blaming and putting the responsibility for failures of development on “nature”, we – as a society – fail to hold accountable those who create disaster risk. Section 2 gives an overview of the key terminology that emphasises that disasters are socially produced. Section 3 describes methodology, and is followed by Section 4 in which the results of the analysis are presented. Section 5 brings our discussion together by arguing that risk is created in many ways but ultimately it is our predatory socio-economic system that characterises the current status quo – a status quo that thrives on race, class and gender based discrimination – that both drives the creation of risk and puts down any attempts to overturn its dominance (Klein, 2007). In the conclusion we argue that the language currently being used, particularly the “natural disaster” expression, is not helping us to address root causes of disasters. Arguably it is hurting our cause.

2. Disasters aren’t natural

The 2017 hurricane season in the Caribbean led to the largest annual global insurance losses to date. For instance, hurricane Maria alone accounted for US$ 32 billion in insured losses alone (Swiss Re, 2018). A year later the disruptions still exist in many – largely less affluent – parts of the country (Klein, 2018), and psychological impacts will remain for years to come. But despite the huge financial, structural and human toll, the hurricane was not unusual or unexpected: the Caribbean experiences hurricanes annually. It was not the hurricane that forced many people in Puerto Rico into lives of everyday risk on the margins; what turned the hurricane into a disaster was a lack of access to the resources necessary to attain safety.
A disaster is commonly defined 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” (UNISDR, 2018, authors’ emphasis). As in Puerto Rico, there is more than a natural phenomena at play when we critically evaluate the impact of hazards interacting with human populations.

2.1 Natural hazards

UNISDR (2018) defines a natural hazard as “A natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation”, with an annotation that “Severe hazardous events can lead to a disaster as a result of the combination of hazard occurrence and other risk factors” (authors’ emphasis). The roles of severity and risk factors are significant here: severity signifies a substantial departure from a mean or trend, and the fundamental determinants of hazards comprise location, timing, magnitude, and frequency; risk factors are related to the threshold determined by the combination of the lowest limit at which physical forces can cause damage (Alexander, 2000). A disaster is thus a “disruption of the functioning of a community or a society” and not just an occurrence of a hazard: an earthquake that happens in an uninhabited area is not typically considered a disaster. The 2018 devastation in Kerala, India, was not just due to heavy rainfall, but also to decades of poor development decisions that left the landscape exploited and people living in hazard prone locations. Kelman (2010) argues further that natural phenomena such as earthquakes, floods and storms are only seen as hazardous because of how we interpret events as normal and necessary. Indeed, Schmuck-Widmann (1996) found in Bangladesh that the inhabitants of the flood prone islands (chars) in the Brahmaputra/Jamuna River viewed the reoccurring floods as largely positive due to the important role the floods made to agriculture, fishing and transportation. Also the same natural hazard may have a very different impact on different societies (e.g. a flood in the same city may cause devastation in one area of a city but not in another) (Cannon, 1994).
2.2 Exposure

Exposure is defined by the UNISDR as “the situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas”. Exposure, particularly indirect socio-economic exposure, is difficult to measure (Martin and Modica, 2017). Exposure increases as population grows in hazardous areas, land use changes and improved socio-economic conditions raise the value of assets; these have been the primary drivers of disaster risk in recent decades (GFDRR, 2016). Exposure has a close relationship with vulnerability, contributing to the level of disaster losses and impacts experienced (Freire and Aubrecht, 2012). That is not to say that exposure causes vulnerability. In fact, exposure and vulnerability share common drivers. The level of exposure that people and communities experience is often defined by decisions made by those wishing to exploit the land. For instance, in spite of planning regulations, over the last two decades 9% of new houses in England have been built in highly flood-prone areas. In real terms this equates to approximately between 10,000 and 17,000 houses being built highly exposed every year for the last two decades, creating more and more flood risk (Bosher, 2014). Across Asia, minority groups are regularly displaced (and further exposed to hazards) to make way for hydropower development – the potential for disastrous consequences brought again to light by the Laos dam disaster in 2018 (von Meding et al., 2018).

2.3 Vulnerability

The 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”. Cardona (2003) argues that vulnerability originates in a human experience and “represents the physical, economic, political and social susceptibility or predisposition of a community to damage in a case [of] a destabilising phenomenon” (p.37). This means that a series of extreme (and often chronic or permanent) conditions make some social groups particularly fragile, and are often referred to as ‘root causes’. Root causes are closely intertwined with social and economic processes, and can originate because of a distant centre of economic or political power, because of the historic trends, or because of ‘cultural assumptions, ideology, beliefs and social relations in the actual lived existence of the people concerned that they are ‘invisible’ and ‘taken for granted’” (Winser et al., 2004, p.52). Root causes not only produce but also reproduce vulnerability over time. The most prominent root causes of
vulnerability are economic, demographic and political processes that affect the allocation and distribution of resources, enforcement of rights, gender relations, political power, governance, and so on.

Understanding root causes explains why disasters do not affect all communities and societies equally: disaster impacts are disproportionately felt by the poor and/or other social groups that have been pushed to the margins of society. Marginalised or poor sections of society regularly lack access to resources and the means of protection available to those with higher levels of socio-economic or political power. Vulnerability thus reflects how power and resources are shared within society (Wisner et al., 2004). A case in point is Haiti: the 2010 earthquake exposed the vulnerability that is rooted in the heritage of a colonial system (slavery and economic exploitation); the continuing influence of foreign powers in Haiti’s domestic affairs that started immediately after its independence; and a state that functions against the best interests of the public and is rather geared towards serving the political, social and business elite (Schuller, 2016). This vulnerability has been further exacerbated by reconstruction efforts. In October 2013, the Haitian government launched the country’s first national housing policy in a bid to address the shortage of 500,000 new homes needed in Haiti by 2020. But government-led new housing projects are fraught with corruption and mismanagement, as well as by poor coordination and lack of funds. Disputes over land ownership have proved to be an additional obstacle, as the earthquake destroyed the majority of title deeds and land registry records (Bosher and Chmutina, 2017).

Vulnerability is unfortunately often ignored, despite the fact that decision-makers have extensive information that could be used to address it. Hewitt (1997) connects vulnerability with people’s everyday lives, involving their capacities to avoid, resist, and recover from harm. Often the root causes of vulnerability are found in oppressive societal systems. We are therefore compelled to consider the legal, political, and moral aspects of vulnerability, and ask difficult questions of those with decision-making responsibility. In the context of this study, despite the language and framing of vulnerability being commonly accepted and used, the status quo (that creates risk) is not necessarily being challenged.

2.4 Capacity

The UNISDR’s definition of capacity is “the combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and
strengthen resilience”. The potential of communities themselves to play a central role in dealing with disaster risk should not be underestimated: capacities are both an individual and a collective set of diverse knowledge, skills and resources people can claim, access and resort to in dealing with hazards and disasters. For instance, multiple accounts of traditional bush fire management practices across Latin America, Africa and Australia are recorded – all emphasising the reliance on people’s very fine understanding of their environment, of factors at the origin of fire and of the negative and positive impacts of fire for their livelihoods (Gaillard et al., 2018). Bangladesh’s ‘char’ dwellers, mentioned earlier in this paper, are another example of how coping capacities can be honed over time to help communities to live with hazards such as floods. Capacity development has been identified as one of the main ways of substantially reducing disaster losses. In this way society can foster change and protect itself from natural hazards (Hagelsteen and Burke, 2016). But often the opportunity to harness the powerful capacity of local community is missed through ignorance or reluctance by key decision-makers to give up power. Harnessing capacities for reducing disaster risk requires people’s genuine participation in assessing and enhancing their existing knowledge, skills and resources (Gaillard et al., 2018).

In order to fully understand disasters, it is important to deal with the nuance of each context being examined; the extent and types of vulnerabilities; the technical ability of a society for dealing with a hazard in terms of mitigation and preparedness; and the social and economic systems that generate vulnerabilities as well as determine possible technical interventions (Cannon, 1994). The way that constructs such as disaster, hazard, vulnerability and capacity are conceptualised and operationalised is critical. Narratives shape what people believe and the scope for action – so language matters. By examining a segment of the material published on this topic, we will explore the extent to which we are succeeding in reducing risk (and avoiding the creation of risk), the role of language in representing this reality and the consequences of inaccurate or misleading narratives.

3. Methodology

The use of the expression “natural disaster” is common across academic fields, policy documents, agency reports and the media landscape. There are therefore many different analyses that could be carried out. But as a contribution to GAR 2019, the most relevant critique relates to how non-governmental and intergovernmental organisations utilise the expression. Our analysis does not cover
specific national policies, instead looking at activities that take place in the disaster risk reduction space by well-known INGOs and IGOs (e.g. UN, World Bank). These are important actors in the Disaster Risk Management (DRM) field, often influencing national governments through loans and aid, or implementing projects directly. They have a position and platform to impact on society. Their reports are regularly consumed and analysed by the public, the media, donors and policy makers.

PreventionWeb was chosen as a platform for our search as it contains the largest number of DRM-related publications authored by a wide range of organisations. We developed search criteria and conducted a systematic analysis of the PreventionWeb archives. The inclusion criteria were:

- A policy, plan, statement, publication or document on PreventionWeb;
- Published by IGOs or INGOs;
- Contains expression “natural disaster” in the title, abstract or the main body of the text.

The exclusion criteria were:

- Related to human-induced threats and accidents;
- Used “natural disaster” in the context of the International Decade for Natural Disaster Reduction or “natural disasters” as the title of an event;
- Used “natural” in quotation marks, indicating that author was critical of the standard usage of the expression.

The initial search presented 1,522 policies, plans and statements that contain the expression; however after application of all criteria, 22 IGO’s and 1 INGO’s plans, policies and statements were analysed. The number of “publications and documents” (hereafter publications) issued by IGOs and INGOs in which the expression was used was much higher: 4,768. After the search criteria were applied, 317 IGO publications and 94 INGO publications remained. The majority of publications analysed focused on Asia. The most prominent hazards discussed in the publications were floods and droughts.

We examined the remaining articles for ways in which the expression “natural disaster” was utilised. A careful reading and re-reading of the papers, as part of a thematic analysis, allowed us to explore the reasons for using the expression “natural disaster” and to understand the context within which the relationship to vulnerability has appeared. Thematic analysis allows for a flexible analytical process to provide structure. Our analysis revealed that authors were using the expression in 6 principle ways – social vulnerability, building resilience efforts, financial mechanisms, urban planning, building
environment and infrastructure, governance, and impact of hazards - that are discussed in detailed in the following section.

4. Results: Contexts within which “natural disasters” expression is used in IGO and INGO reports and publications

The science is clear. A hazard becomes a disaster because its impact threatens the lives and livelihoods of vulnerable and exposed people. The root causes are complex and include discrimination and marginalisation, inequitable access to resources, knowledge and support as well as rapid urbanisation or environmental degradation. But despite a clear distinction between a hazard and a disaster, the use of the “natural disaster” misnomer actually appears to be growing. Disasters are increasingly framed in hazard-centric and depoliticised “narratives of destruction” (von Meding, 2018b). This is particularly worrying given that we can also track an increased use of vulnerability concepts by academics and practitioners. The way disasters are presented and reported on has an important role in constructing public perception of risks associated with natural hazards. It also defines and limits the discourse associated with these events, making it critical that the correct terminology is used. IGO and INGO publications are highly influential, and often have far greater ramifications that academic literature.

Although explicit UN efforts on DRM started in early 1980s (with the establishment of the United Nations Disaster Relief Office in 1971), most of the documents fitting the criteria were published after 2000 (Figure 1). A sort of “natural disaster” fever-pitch was achieved in 2010, and the current decade has seen a sustained popular usage of the expression.
In the publications analysed, the most prominent contexts of usage were as follows (Figure 2):

- **Social vulnerability**: out of 434 publications analysed, 126 used “natural disasters” whilst discussing various aspects of inequality. Publications highlighted that inequality is not just about the unequal distribution of income: instead socio-demographic aspects just as gender, age, disability or poor health all play a role in how people prepare and respond to a disaster and are affected by it. Publications also discussed the way poverty, displacement and migration exacerbate the impact of disasters and the actions that should be taken to protect those most vulnerable. A large emphasis has been placed on “hidden voices” and the importance of hearing these voices in order to be able to reduce the disaster risks. Nevertheless, whilst acknowledging that disasters affect different people differently and that if the inequality and marginalisation issues are to be resolved the impact of a disaster would be reduced, the authors still used the “natural disaster” expression.

- **Building resilience efforts** related publications (n=92) discussed technical interventions, early warning systems, and modification of hazards’ impacts; many of these focused on community-based projects. These publications largely focused on structural DRR measures, indicating the prevalence of a technocratic approach to building resilience unlikely to fully address the complexity of risk in society. The usage of “natural disaster” in
technocratic literature is particularly problematic as it further normalises the absence of a solution to structural inequality and injustice.

- Financial mechanisms related publications (n=80) predominantly focused on insurance as well as different financial programmes for particular countries and regions (e.g. SIDS). Financial mechanisms were a theme most prominent in IGO’s publications, including a large number of publications from the World Bank. Many of the publications in this category focused on developing financial mechanisms that can be used by and/or for the benefit of the most vulnerable. These publications broadly accept the socio-economic status quo, which is problematic in terms of risk creation and planetary boundaries. Again, using the expression “natural disaster” while arguing for financial mechanisms to manage risk does not get to the root of the problem, and may in fact obscure it.

- Urban planning, built environment and infrastructure related publications (n=58) discussed challenges of resilient construction, performance of the built environment and ability to recover after a disaster. Here the fragility of cities was discussed, in particular interdependencies of supply chain, heavy reliance on infrastructure and a lack of investment in infrastructure maintenance as well as the role of planning and building regulations in controlling and mitigating hazards.

- Governance related publications (n=47) largely focused on regional and local collaboration, actions of local authorities as well as engagement with communities and private sector. It is generally acknowledged that DRM requires multi-stakeholder collaboration taking both top-down and bottom-up approaches, and that often it is due to poor governance that initiatives to reduce disaster risk are not implemented or recognised.

- Publications discussing the impacts of natural hazards (n=47) reported statistical data and highlighted the sectors in which resilience should be improved. Climate change played a prominent role in many of these publications. There often seemed to be a lack of differentiation between a hazard and a disaster.
The results show that most of the contexts in which disasters are discussed in this sample are based either a) around vulnerability components determined by the social frame, such as class, gender, ethnicity, or b) on reducing vulnerability through better preparedness and prevention, risk assessment, financial mechanisms such as micro-insurance, and education and capacity building. The social frame is, in turn, determined by wider factors such as environmental issues, national and international political economy, power relations, demographics, conflicts and wars. The overall context of this sample is one that shows consciousness towards the fact that disasters are socially produced.

Our analysis found that many IGOs and INGOs (including the World Bank and various UN bodies) working in the DRM space consistently refer to disasters as “natural”, despite maintaining a focus on the vulnerability – in particular inequality and poverty - driving disaster impacts in society. Titles such as “financial resilience against natural disasters”, “understanding the impact of natural disaster on the poor”, “role of safety nets in natural disasters”, “assessing the risks of natural disasters” characterise the sample; they all suggest that disasters can be prevented and/or prepared for. Nevertheless, the false emphasis on nature remains.

The expression has also been used in the statements and documents related to the International Day for Disaster Reduction – up until 2016 - although the themes chosen for the day were all vulnerability-
driven (gender, disability, age, hospitals, education etc.). Similarly, UNISDR’s “Words into Action”
guidelines issues in 2017 also contain the expression. Unfortunately the recurrent use of the “natural
disaster” term by IGOs and INGOs appears to make it an accepted (uncontested) nomenclature and thus is
likely to encourage others to adopt this misnomer. So does the expression “natural disaster” undermine
the efforts of a vulnerability-centred narrative? Is there a chance that it actually sanctions those actors that
are creating additional risk, or exploiting the vulnerable?

5. Why use of “natural disaster” contributes to disaster risk

It is clear that many organisations do indeed recognise the “non-naturalness” of disasters. In 2010
(irconically the peak year for usage of the “natural disaster” expression in our analysis) the World Bank and
the UN published a report “Natural hazards, Unnatural disasters”, asserting that “the adjective
“UnNatural” in the title of the report conveys the following key message: earthquakes, droughts, floods, and
storms are natural hazards, but the unnatural disasters are deaths and damages that result from human
acts of omission and commission” (World Bank and UN, 2010, p.23). This was seen by many as evidence
that we had turned a corner. But in our study sample, the World Bank is still among those most prone to
using the expression, demonstrating that it is not something that halted in 2010. In a recent example
(August 2018), the report Gender Equality and Women’s Empowerment in Disaster Recovery used “natural
disaster” in its first paragraph. This otherwise rich and informative report received contributions from
GFDRR, UNISDR, WB and the EU, among others. Were questions raised about the use of the expression?

One factor that set the stage for the usage of “natural disaster” that we see today was the choice of
wording for the UN’s International Decade for Natural Disaster Reduction (authors’ emphasis) that ran in
the 1990s. This title clearly failed to distinguish natural hazards from human causation of disasters
(Cannon, 1994). When a well-established and recognised organisation like the UN establishes a significant
platform using “natural disaster”, it signals that the terminology is appropriate. The trend upwards in
popularity of the phrase began during this period. But labelling disasters as “natural” enables those who
create disaster risks by accepting poor urban planning, increasing socio-economic inequalities, non-
existent or poorly regulated policies, and lack of proactive adaptation and mitigation to avoid scrutiny by blaming it on nature.

Despite overwhelming evidence that disasters are socially produced, some argue in favour of the continuing usage of the expression “natural disaster”. They claim that it is not harmful and that by abandoning it, we might lose focus on the natural element of a disaster. Such discussions have been particularly prominent on social media (e.g. see threads on @nonaturaldisasters Twitter account) where some geophysical scientists, mainly working on earthquake and volcanic hazards, argue that by abandoning the “natural disaster” expression we might neglect geophysical change and attribute all blame to human forces. But this has not been the case in critical disaster studies literature, where the role of natural hazards has been made abundantly clear. Unfortunately, highlighting the “naturalness” of the process really does diminish the perceived role of human actors.

Any representation of a disaster is based on cultural, social, political, and technical biases; yet many IGOs and INGOs are seen as “authorities” and thus have power to affect how the general public perceives the topic. Perceptions about hazards and disasters help to determine the mitigation strategies that the public deems reasonable and worthy of expenditure or sacrifice (e.g. taxes, incentives, lifestyle changes). The public mobilises and makes requests of the State in accordance with this perception of risk.

This is the problem with misleading language that places the responsibility for disasters on nature. It fuels the false belief that there is nothing that can be done to reduce risk (a “Nature always wins” or “just an act of God” attitude). Policy makers already have access to knowledge that can inform appropriate decisions in tackling root causes of disasters. But such pathways are not often desirable – they may demand curbs to development, or reduction in consumption – to those that are under the influence of corporate interests. The dominant “development” paradigm (focused on neoliberal economics) claims that a win-win situation is possible. It asserts that “sustainable development” is not an oxymoron, as some argue, but a harmonic balance that can be achieved if only States voluntarily align with the SDGs. But a commitment to economic growth underpins this paradigm – something rarely challenged in the literature analysed.

There are numerous non-natural aspects of disasters that are critical to an accurate analysis; political and economic systems, livelihoods, access to resources, social protection, the role of the state in risk prevention etc. Bearing this in mind, we can say with certainty that disasters are politically relevant
and also that they are often politically charged. They can be used to maintain positions of power or to seize power. They can shock an economy and open it up to change – moves to privatise public utilities are very common, most recently seen in Puerto Rico after Hurricane Maria.

Inequality, poverty, political ideology, class and power relations are root causes of vulnerabilities that turn natural hazards into disasters. This argument has been made for 40 years and is demonstrated in the well-known Blaikie et al. (1994) Pressure and Release (PAR) Model; many of the ideas presented in the PAR model date back to Ian Davis’ work in the 1970s. To illustrate the point, Figure 3 shows a PAR model of the 2015 Gorkha earthquake that devastated Nepal: a hazard turned into a disaster because of the political weakness, rapid urbanisation, unregulated development and high social inequality levels among other factors.

Figure 3: Pressure and Release model of the 2015 Gorkha Earthquake

Because of complex combinations of structural inequality and oppression with dynamic pressures, disasters do not impact all communities and societies equally: women die more frequently than men in coastal storms and tsunamis; they also suffer domestic violence and other forms of gender violence and insecurity after disasters. In Nepal, after the 2015 earthquake, widows have had difficulty obtaining grants to rebuild houses because all documentation was in their husband’s name (Jackson et al. 2016). Many Nepali women have since been trafficked into slavery due to resource shortages (Preiss and Shati, 2017).

For key international and governmental agencies the process of knowledge production that helps us to understand disaster risk within the policy sphere predominantly supports a technical (i.e. physical-
and engineering-based) orientation. The majority of corporations (for example engineering, technology, data companies) that benefit from disasters occurring - and also from preventative measures - are based in wealthy countries, whilst the majority of disasters occur in less affluent countries. While it certainly has a market-based rationale, the preference for scientific-technical knowledge marginalises other knowledge - including everyday risk, cultural context, traditional knowledge, risk perception and survival strategies - that is not taken into consideration by the dominant (Eurocentric) discourse when forming disaster policy.

So when disasters are seen as a problem that requires neoliberal and technocratic solutions, it fits well with a “free market” driven disaster industry (Pelling, 2001; Aragon-Durand, 2009; Gould et al., 2016). Seeing disasters as natural means that nature is dangerous but can nevertheless be managed (Gould et al., 2016) – with an increasing expectation from the private sector that the public sector pays for protecting their assets (as in the case of protecting oil facilities from climate change (CBS News, 2018)).

The public often sees governments as being responsible for responding to a disaster: a high level of trust in authorities can imply that citizens believe in these institutions’ capacity to control a natural hazard (Scolobig et al. 2012), or to issue sufficient aid when a disaster occurs. Thus failed disaster risk management can turn into political crises that significantly affect political systems (Boin et al. 2008). Disasters are often seen by government as “symbolic politics” that allows for solving a public problem through a private response (Herzog, 2007). For instance, a blackout requires a response from private utility companies that have to restore electricity supply; political support is thus merely symbolic yet if the response is not sufficient, there is an opportunity to blame it on another stakeholder (as well as on nature).

Occurring in the context of neoliberal policies, urban areas (which present particular risk characteristics) have been rapidly developing thanks to the state’s focus on enabling investments in construction through the provision of infrastructure, financial mechanisms and making land available for development. Neoliberal reforms have been a great motivator for the intense growth in urban populations and have produced an ideological trilogy of competition, deregulation and privatisation. Such ideology is hostile to all forms of spatial regulation, including urban and regional planning, environmental policy and economic development policies (Johnson et al. 2013). So when powerful interests suggest that all that is needed is complete reliance on market mechanisms for planning and regulation of urban processes, few complain. Our analysis of IGO and INGO materials yields little evidence of opposition to that ideology. Does this compliance help to facilitate the creation of risk?
Regulatory controls are reduced (or ineffectively applied) to enable the “free market” to work, meaning that disaster risk (and other environmental concerns) have often been poorly considered in urban development decisions. Houston, where zoning regulations were not implemented and the hydrology of the city was ignored as it developed, is a case in point: in 2017, Hurricane Harvey devastated the city. It clearly showed how inadequate land and policy planning can lead to the creation of “parallel societies”: some parts of the cities enjoy the benefits of urban life, whereas others live in worse conditions than those in more rural areas, increasingly left to provide their own water, energy and food supply.

There is also an assumption that many disasters happen because of the lack of ‘development’; development, however, does not reduce incidence of disasters. And often the “development” is imposed by those who are perceived to be “developed”, disregarding culturally and socially acceptable practices. In Haiti, centuries of intervention and exploitation has led to conditions that look a lot like “weak governance” to external experts, sometimes falling back on the ideology of colonialism. “Overlooked are a history of forced settlement, slavery, plantation monoculture, soil exhaustion, deforestation, repeated occupations, the Duvaliers – father and son, the tonton macoutes, grinding poverty and the lowest standard of living in the Western Hemisphere” (Bankoff, 2010, n.p.).

Theoretically development is meant to ameliorate many of the unsafe conditions and dynamic pressures that have put people at risk (Bankoff, 2010). As mentioned previously, “development” with an economic focus is dominant. Ward and Shively (2017) show that there is indeed a correlation between economic development and levels of vulnerability, arguing that “increased economic development can be a powerful tool for lessening social vulnerability to disasters” (p.340). But at what cost?

Perhaps development is actually at the root of the problem because it enhances vulnerabilities. In many less affluent countries, development projects claiming to manage disaster risk - such as new dams - are considered “disastrous” by the local communities displaced, losing not only their homes and livelihoods but also their identity and place. Without so much as a rigorous social and environmental risk assessment, such projects are often developed without consultation.
6. Conclusions

The public at large will never comprehend the complex root causes of disasters if those who are perceived to be making efforts in reducing disaster risk constantly reinforce the “natural” component in their messaging. The current decade has seen a dramatic popular usage of the expression “natural disaster”, explored in this paper by looking at IGO and INGO sources on PreventionWeb. The language landscape appears to be inexorably skewed towards blaming nature. This does not get to the root of the problem, nor does it help to mitigate longer-term risks.

The expression “natural disaster” is detrimental to efforts for change as it allows those with power to maintain the status quo, avoiding responsibility for failures of development by “blaming nature”. If disaster is conceived as a “natural” phenomenon, the exposure of vulnerable people to disaster risk is concealed. This can inhibit the emergence of socially sensitive responses at policy level. Ignorance, carelessness, greed and even malice of decision-makers can be masked by a focus on natural processes.

Policy and decision makers often portray disasters as unexpected and unforeseen “natural” forces because blame put beyond human agency (i.e. earthquakes are natural events) allows for praise in terms of reactive actions, preparedness and mitigation to minimise damages (i.e. Human capabilities are subordinated to the “natural” forces yet we are trying to fight them for you). As Bankoff (2010, n.p.) explains, “it suits some people to explain them [disasters] that way. As natural events, disasters are nobody's fault. The people affected are victims at the mercy of a capricious climate and/or an unpredictable seismicity. Not so long ago, disasters were simply considered “Acts of God,” even justified as chastisement by a wrathful deity for the misdemeanours of sinners.” If the origin of disasters is natural, then our ability to address them through policy is limited. That would represent an ideal situation for those that are opposed to seriously addressing systemic economic, political, social and environmental injustice.

In order to contribute to this shift in thinking and discourse, the “experts” in the field, including individuals and organisations, need to be more deliberate and measured in the words that we use. What is often simply a lack of careful and consistent language actually fuels a cycle of misinformation. We must push back against short-term profit oriented - or headline grabbing - thinking. One simple thing that we can do is to communicate more clearly and accurately.
References:


GFDRR. 2016. The making of a riskier future: How our decisions are shaping future disaster risk. Available at: https://www.gfdr.org/sites/default/files/publication/Riskier%20Future.pdf


Kelman, I. 2010. Natural Disasters Do Not Exist (Natural Hazards Do Not Exist Either) Version 3, 9 July 2010 (Version 1 was 26 July 2007). Available at:

http://www.ilankelman.org/miscellany/NaturalDisasters.rtf


Klein, N. 2018. The battle for paradise. USA. Haymarket Books


Oliver-Smith, T. 1986. The Martyred City: Death and Rebirth in the Andes. Albuquerque, New Mexico, USA. University of New Mexico Press,


UNISDR, 2018. Terminology. Available at: [https://www.unisdr.org/we/inform/terminology#letter-d](https://www.unisdr.org/we/inform/terminology#letter-d)


