Introduction

The more vulnerable the population is, in terms of where they live, their level of knowledge and awareness of and preparedness for the hazards, and the resources they have at their disposal to limit their exposure, the greater the adverse impact will be on their lives and livelihoods. 1

Indigenous communities are likely to be particularly vulnerable to natural hazards, which occur more and more frequently as a result of global warming. 2 According to the Intergovernmental Panel on Climate Change (IPCC), livelihoods and lifestyles of indigenous peoples, particularly, and labour, who are dependent on natural resources, are highly sensitive to climate change policies, especially those that marginalize their knowledge, values and activities. 3 At the national level, the specific risks faced by indigenous communities in case of disasters have also been recognized. For example, the Canadian Red Cross Emergency Preparedness Guide for Muskego Cree families states that ‘First Nation Communities in Ontario are particularly vulnerable to natural disasters and many remote Northern First Nation communities must deal with hazards such as forest fires and floods every year’. 4 Disasters that strike indigenous communities have resulted in severe damage, including loss of lives. For example, in Honduras, in 1998 indigenous people living in areas exposed to flooding and landslides were particularly affected by Hurricane Mitch, which caused close to 10,000 fatalities. 5 In 2015–2016, floods in Colombia affected especially those who had already been displaced by conflict, most of them being indigenous peoples living in areas most subject to violence, from armed non-state actors. As a result of these torrential rains, nearly 2000 homes were destroyed. 6 More recently, in Nepal, in 2014, floods and landslides killed about 200 people, while there is no exact data available, it has been reported that indigenous peoples, along with the so-called Dalits, were the most impacted. 7

There are, at least, an estimated 370 million indigenous peoples living in about 70 nations worldwide, amounting to about 5 percent of the world population but to about 15 percent of the poor population. 9 In accordance with the fundamental criterion of self-determination, to determine whether a particular group of individuals qualifies as ‘indigenous’, the group in question should first identify itself as Indigenous, as affirmed by the Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities in his Study on the Problems of Discrimination against Indigenous Populations. 10 While there is no universally accepted
agreed definition of ‘Indigenous peoples’; a number of common factors can generally be observed among them, such as a shared ancestry with pre-colonial societies, as well as a particularly strong relationship with the ancestral lands they inhabit, which contributes to their distinctiveness, along with their specific cultures (including languages, customs, and traditions) and their own social and legal systems, a distinctiveness they generally strive to perpetuate. Almost always, Indigenous peoples are minority communities on the territory of the State they inhabit.

The factors that place Indigenous peoples at particular risk of being affected by disasters include their place of residence, which is often remote and thus not easily accessible to emergency aid workers. Living remotely from urban centres may also mean that they may not possess identity documents because of a lack of registration at birth, for example, which in turn makes them unaccountable for in a disaster context. In addition, Indigenous communities’ places of residence are not necessarily fixed. For example, there are pastoral communities in Africa, which are particularly mobile, travelling throughout the year with their livestock, even crossing borders, which makes identifying the locations of such nomadic communities when a natural disaster occurs more challenging.

Other factors that exacerbate the vulnerability of Indigenous communities include their economic status, as they often live in relative poverty, as well as a lack of awareness and preparedness, in particular as they are often marginalised, meaning that they often do not participate in the decision-making process of the State which has control over their traditional territories. Despite being close to the environment they have traditionally inhabited and having knowledge of climate patterns, including natural hazards, transferred through generations, the combination of the vulnerability factors mentioned above increases their risk of being negatively affected by natural hazards.

When a natural hazard strikes, it becomes a disaster when the population living in that area suffers from its consequences. Disasters may endanger the lives of Indigenous peoples, as well as have a major impact on their living conditions, their health, their access to subsistence resources, including water, and their ancestral lands and more in general. While disasters have an immediate negative impact, they can also have a gradual effect and eventually force communities to migrate, for example, when flooding areas are transformed into breeding and resting sites. Some of these communities will also begin to lose their livelihoods to higher ground, as flood-related losses have to be organized. While the direct social damage induced by climate change in general is a real threat for the livelihoods of many Indigenous communities, this chapter focuses on the sudden-onset damage caused to these communities as a direct result of natural disasters.

Disasters may be a threat to several human rights which most States must respect, protect, and fulfill, under international law, such as the right to live a decent life, in particular with regard to Indigenous communities, the right to health, the right to property, among others. If a State fails to protect its Indigenous population from the negative impacts of disasters, it may thus be held responsible for human rights violations, including the rights of minorities, as enshrined in Article 27 of the International Covenant on Civil and Political Rights (ICCPR). The provisions establish that minorities shall have the
right to 'enjoy their own culture, to profess and practice their own religion, or to use their own language'. The State may also be responsible if it fails to provide its Indigenous population with its right to self-determination and a right to free, prior, and informed consent (FPIC), two key concepts stemming from the Indigenous rights framework, which are also applicable in the context of disaster risk reduction, preparedness, and management.

Despite the risks they face with regard to disasters, in particular as a result of the vulnerabilities derived from their living conditions, Indigenous peoples have generally been left out of initiatives and policy developments concerned with disaster. This is a reflection of their lack of participation in the decision-making process at the national level. While there are many examples of Indigenous decision-making processes in place with regard to issues that relate to their internal affairs, they are most often disregarded when the decision-making involves a State institution. In Nepal, for example, the large Indigenous population has been ignored in the development of 2009 National Strategy for Disaster Risk Management.

This chapter, which focuses on disaster stemming from natural hazards, first presents how the existing legal framework applies (or may apply) to disasters involving Indigenous communities before considering the existing legal basis to include Indigenous peoples in the decision-making processes pertaining to the development of disaster risk reduction, preparedness, and management policies. It also addresses the potential added-value of integrating an Indigenous perspective in the decision-making process aimed at curbing the effects of disasters, in particular through the use of Indigenous knowledge. Finally, it includes some existing good practice and possible ways forward in order to involve Indigenous peoples, their views and specific knowledge, in all activities regarding disaster risk reduction, preparedness, and management.

International law applicable to Indigenous peoples in the event of disaster

International human rights law

All human rights enshrined in treaties, such as the ICCPR and the International Covenant on Economic, Social and Cultural Rights (ICESCR), are applicable to Indigenous peoples under the jurisdiction of their States Parties. Under these treaties, human rights are generally deemed to belong to Indigenous as individuals rather than to Indigenous communities as groups, although some of these rights are only recognised to Indigenous as individuals if they relate to the application of a group practice. For example, the right of minorities protected in Article 27 ICCPR can be invoked when it regards the culture, religion, or language belonging to a particular group. However, under certain circumstances, such as the ILO Convention 169 on Indigenous and Tribal Peoples, Indigenous peoples also possess group rights, i.e. rights which attach to a particular group because of its characteristics and can thus only be exercised by the group as a whole. No matter whether the rights belonging to Indigenous peoples can be categorized as individual or group rights, States have the obligation to respect, protect, and fulfil, the human rights of Indigenous peoples, as contained in the treaties that are party to; and in case of violations, they have an obligation to repair the harms, both material and moral, suffered as a consequence thereof. As the Expert Mechanism on the Rights of Indigenous Peoples stated:

[AJ] States have positive human rights obligations to protect human rights. Natural hazards are not disasters, in and of themselves. They become disasters depending on the elements of exposure, vulnerability, and resilience, all factors that can be addressed by...
human (including State) action. A failure (by national and local governments, disaster risk reduction agencies, indigenous peoples and other actors) to take reasonable preventive action to reduce exposure and vulnerability and to enhance resilience, as well as to provide effective mitigation, is therefore a human rights issue. If Indigenous peoples suffer harm as the result of a human rights violation in a disaster context, in particular when it is a consequence of a State’s neglect to act against the foreseeable disastrous effects of natural hazards, they may therefore seek reparations at the national level, when such bodies are available to them, or before the relevant United Nations Treaty Body. As an analysis of domestic courts’ jurisprudence in this area goes beyond the remit of this chapter, the following sections focus on the work of international mechanisms in upholding the human rights of Indigenous peoples in a disaster context, including both the UN mechanisms and the regional human rights courts.

Universal human rights framework

At the international level, alleged violations of any human rights are the object of petitions (sometimes called ‘communications’) before the relevant UN Treaty Body, if the defending State has accepted the applicable individual communication procedure. In addition to hearing individual cases, the UN human rights mechanisms, through the Human Rights Council, may also consider patterns of human rights violations, as well as provide insight into certain areas of international human rights law, as it did with the Study it published in August 2014 on the Promotion and protection of the rights of indigenous peoples on natural disaster risk reduction and preparedness initiatives (the Expert Mechanism Study), which was prepared for the Expert Mechanism on the Rights of Indigenous Peoples.

The Expert Mechanism Study was developed through consultation and cooperation with Indigenous peoples. It explores the links between disaster risk reduction and human rights, stating that the former enables the latter by minimising the negative impacts that natural hazards may have on the realisation of a number of rights such as housing or health, for example. It also considers how Indigenous peoples could further participate in disaster risk reduction efforts. Its advice highlights the relevance of the UN Declaration on the Rights of Indigenous Peoples as a legal framework for the promotion and protection of the rights of Indigenous peoples in this area. In particular, it calls on States to ‘secure the input of indigenous peoples in the development and implementation of disaster risk reduction measures’, in order to, among others, ‘empower their decision-making, while protecting their rights, including their right to self-determination with regard to their lands, territories and natural resources, their right to participate in decision-making, and their right to protect their cultural knowledge’. This input must also be sought by Indigenous peoples themselves through advocacy. In addition, the Expert Mechanism Study also urges States to take into account the vulnerability of Indigenous peoples to disasters when considering the development of infrastructures or extraction activities that may negatively affect them. The study also urges States to ‘take into account the vulnerability of Indigenous peoples to disasters when considering the development of infrastructures or extraction activities that may negatively affect them’. It means that Indigenous communities should not only be involved in the development of disaster risk reduction and preparedness policies but also in any other governmental activity that may have a negative effect on them. Otherwise, the State may be in breach of its obligation to protect the rights of Indigenous peoples. Finally, UN Special Procedures, which focus either on human rights violations taking place in a particular State or the implementation of specific rights, have also provided some relevant information on, inter alia, recommendations pertaining to disasters with regard to Indigenous peoples.
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For example, the Special Rapporteur on adequate housing, as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context, whose mandate currently focuses on the most vulnerable populations, including Indigenous peoples, stated that, when addressing the consequences of disasters, pre-existing vulnerability, including land tenure insecurity which in all the states for Indigenous communities, had to be taken into account for the full realization of the right to adequate housing. The Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy, and sustainable environment supported the acknowledgment of the Human Rights Council, according to which certain groups are particularly vulnerable to environmental harm, by calling climate change "inherently discriminatory," adding that States must not take the necessary steps to ensure that those in vulnerable positions, including Indigenous peoples, are fully informed of the effects of climate change, that they are able to take part in decision-making processes, that their concerns are taken into account and that they have access to remedies for violations of their rights. Following its visit to Nicaragua, the Special Rapporteur on the right to food has specifically recommended that rapid alert systems be put in place to protect the Indigenous communities which are particularly vulnerable to the effects of climate change and that these communities should be supported in developing agricultural models more resilient to extreme weather patterns. The particular vulnerability faced by Indigenous communities with regard to disasters has thus been widely acknowledged within the international human rights framework, as well as the need for States to adopt a human rights approach when addressing the potential impacts of natural hazards on such communities.

Regional human rights framework

International human rights law has also been enshrined at the regional level; however, most economic, social, or cultural rights are not directly enforceable before the regional courts. Nevertheless, both the European and the Inter-American Court of Human Rights have indirectly enforced certain economic, social, or cultural rights through the application of civil or political rights. The Inter-American human rights system has been particularly innovative in protecting the rights of Indigenous peoples, including their traditional knowledge, which may be relevant to develop effective disaster risk reduction and prevention initiatives. As a result of the close relation they enjoy with the lands they inhabit, Indigenous peoples have gained an intimate knowledge of natural events, which the Expert Mechanism Study recommended to take into account to successfully reduce the risk of disasters. This special relationship that Indigenous groups bear with their traditional lands has been recognized by the Inter-American human rights system in cases which have involved the management of natural resources. In the case of the Kichwa Indigenous People of Sarayaku v. Ecuador, where oil exploration threatened the lives of local communities, the Court found violations of the right to life and physical integrity as a result of the placement of high-powered explosives on their land, in addition to violations of their right to prior consultation and consent. It awarded a combination of reparations, including guarantees of non-repetition to ensure effective consultation with regard to any project that may impact local communities, as well as training officials on Indigenous rights. In general, when awarding reparations, the Court has taken into account the particular customs and traditions of Indigenous peoples, such as their familial structures and cultural practices, when determining the class of victims who may be awarded reparations. When assessing the harm caused by environmental pollution, it has considered the particular, irreparable losses to cultural identity and the need for effective measures to compensate for them. The Court has also found violations of the right to an effective remedy and compensation in cases where States have failed to provide sufficient assistance to Indigenous communities affected by environmental damage. In such cases, the Court has ordered States to adopt measures to prevent similar violations in the future and to provide reparations to affected communities. In summary, the regional human rights framework has recognized the importance of respecting the rights of Indigenous peoples, especially in the context of natural disasters and environmental harm.
Guatemala was requested to ‘take into account the traditions and customs of the members of the affected communities’ when honouring the victims publicly. 41 The respect of the affected communities’ language was also upheld through the obligation made to the State to translate the judgment into Maya-Achi. 42 All of these measures should also be considered by bodies awarding reparations to Indigenous peoples who had their rights violated in a disaster context.

Furthermore, reparations have been deemed by the Court as an opportunity not only to redress the harm caused but also to improve the context which may have been instrumental in generating the violations. 43 Again, this is relevant for all types of disasters as even those originating from natural forces may cause more or less harm depending on the situation the victims are in. For example, an earthquake is likely to generate a higher number of casualties in areas where housing conditions are poor. Reparations which include, for example, housing and development programmes, as well as the implementation of regulations of dangerous industrial activities or the adoption of warning systems, may support the non-repetition of disasters or a reduction of their harmful consequences. This approach is in line with the concept of ‘Build Back Better’, which was first established during the reconstruction of Aceh, in Indonesia, following the 2004 tsunami and subsequently adopted within the Hyogo Framework for Action.

In a case involving the Ogoni people in Nigeria, where the activities of an extractive industry contaminated the environment, the African Commission on Human and Peoples’ Rights said that States must ‘take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources’. 44 Within the African human rights system, Article 24 of the 1981 African Charter on Human and Peoples’ Rights provides all peoples with the ‘right to a general satisfactory environment favourable to their development’, a right which could potentially be invoked by victims of disasters when States failed to take necessary steps to reduce the risks of disasters and thus protect their environment. 45

Within the African framework, a unique instrument is worth noting given its direct applicability to victims of disasters: the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (also known as the Kampala Convention) provides for the protection and assistance of persons displaced not only as a result of conflict but also as a result of natural disasters. It provides for the establishment of early warning systems, as well as disaster risk reduction and coordination of humanitarian assistance, at both the national and regional levels. 46 It also establishes the liability of States to repair the damage caused to internally displaced persons when it refrained from protecting and assisting such persons in the event of a natural disaster. 47 Although the Convention does not mention Indigenous peoples specifically, it is clear that African Indigenous communities are particularly at risk of being forcibly displaced as a result of a disaster, including pastoralists who largely depend on their livestock to survive. 48

Indigenous rights framework

In addition to the general international and regional human rights framework, a few instruments, which are less frequently adopted to address the specificities of Indigenous peoples, are also relevant in the disaster context. The only international binding instrument concerned with Indigenous communities is the International Labour Organization Convention 169 on Indigenous and Tribal Peoples (1989) (ILO Convention 169), which contains, among others, the right of ownership and possession of traditional lands; it also calls repeatedly for the respect of the customs and traditions of Indigenous peoples. Article 4 is particularly pertinent as it provides for special measures to be adopted as appropriate for safeguarding the persons, institutions, property, honour, culture and environment of the peoples concerned. Article 7, paragraph 1, of this Convention
peoples’ right to ‘decide their own priorities for the process of development’, as well as to participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly. With regard to their land, in addition to accepting their ‘rights of ownership and possession over the lands which they traditionally occupy’ 51 Article 16 states that Indigenous peoples have the right not to be removed from the lands they occupy, providing safeguards for cases where relocation is necessary as an exceptional measure, which may be the case when seeking to reduce the risks associated with disasters. However, this treaty has not been widely ratified and, at present, only counts 23 State parties, mostly within Latin America and the Caribbean. 52 Chilean States that are party to it, it may be invoked before the national courts and both the Inter-American Commission of Human Rights and the Court have referred to it in their judgements. Like the ILO Convention 169, the 2007 UN Declaration on the Rights of Indigenous Peoples (UNDRIP) 53 the other key international instrument providing rights to Indigenous peoples, albeit not of a binding nature, does also not contain any provisions that are specifically aimed at covering disasters. Nevertheless, it contains similar rights as the ILO Convention 169, which may be relevant in disaster scenarios. These include: the right to self-determination (Articles 3 and 4); the right not to be relocated without having been given free, prior, and informed consent (FPIC), compensation, and being offered the possibility to return, where possible (Article 10); the right to participate in decision-making in matters which may affect them and the obligation for States to obtain their FPIC before adopting legislative or administrative measures that may affect them (Articles 18 and 19); the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them (Article 23); the right to the lands they have traditionally occupied (Articles 26 and 27); the right to conserve and protect their environment and the obligation for States to establish assistance programmes to support it (Article 29); and the right to maintain and develop their traditional knowledge, including their knowledge of fauna and flora (Article 31). Adopted with 143 States voting in its favour, this Declaration is widely supported. Even the four key States (namely Australia, Canada, New Zealand and the United States) which voted against it at the time of its adoption have now all voiced their support for it. Given its wide acceptance and despite its non-binding nature, UNDRIP may nevertheless serve as guidance when developing disaster risk reduction and management policies which may impact Indigenous peoples. 54

Within the above two instruments, a number of rights and concepts emerge as particularly relevant in the disaster context, namely the right to internal self-determination, the right to participation in the decision-making process, as well as the special relationship with ancestral lands, and traditional knowledge, thus deserving a more in-depth analysis.

Self-determination

In several States, Indigenous peoples are now able to self-govern at the local level with regard to certain issues that concern them. This is the case in Canada, where there is even an entire territory, Nunavut, which is under Indigenous control. According to Article 4 UNDRIP, Indigenous peoples have the right to autonomy or self-government in matters relating to their internal and local affairs. Their Indigenous communities may claim decision-making authority over disaster-related policies which apply strictly on their territories. 55

The right to self-determination also includes the right of Indigenous communities to determine their own development, including on matters relating to their lands and resources. Article 33 UNDRIP includes the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them. While disaster risk reduction

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and management per se are not listed in the programmes they have a right to be involved in, they may potentially be considered as falling within those listed in this provision. Housing programmes, for example, should systematically include disaster risk reduction efforts. For example, Habitat for Humanity, which built houses for the 150 Miskito families which were impacted by Hurricane Felix in 2007, in Nicaragua, integrates disaster risk reduction initiatives into their shelter, housing, and settlement programmes. As a result, Indigenous peoples should have the right to determine how disaster risk reduction initiatives are integrated in housing policies affecting them. This is further supported by Article 32 UNDRIP, which upholds the right of Indigenous peoples to select and develop priorities for the use of their lands and resources, which could include disaster risk reduction initiatives. 56

Participation in decision-making and FPIC

Notwithstanding the right to self-determination with regard to local matters, initiatives relating to disasters are often established and implemented at the national level or by sub-national organisations, through processes in which the Indigenous population generally lacks any representation. Hence, as provided for in Article 18 UNDRIP, Indigenous peoples also have a right to participate in decision-making, with their own representatives, when the State establishes and implements laws and policies affecting them, which may be the case of disaster-related instruments. When including Indigenous communities in the decision-making process, it is key to identify their representatives. While it may appear evident to invite elected chiefs, for example, to participate in the decision-making process, elders and spiritual leaders may be the ones with the most relevant traditional knowledge in terms of disaster-related matters, and thus, communities may wish to involve them in those processes as well. In addition, in order to benefit from Indigenous knowledge in the decision-making process, an Indigenous perspective should be adopted in the decision-making process itself, with protocols developed in accordance with the relevant Indigenous customs and traditions.

The pendant to the right to participate in the decision-making process with regard to all matters that affect them is the obligation of States to consult with them and seek to obtain their FPIC concerning measures which may affect them, including those regarding disaster risk reduction and management. According to the Expert Mechanism Study, risk reduction initiatives are more likely to be successful if Indigenous decision-making processes, including their implementation in culturally appropriate ways, and traditional knowledge are respected. The importance of respecting the rights of the most vulnerable, including Indigenous peoples, has also been recognised by the 2015 Paris Agreement on climate change. Its Article 7, the Agreement further acknowledges that adaptation efforts should not only be country-driven but also ensure the participation of vulnerable groups, such as Indigenous communities, and that any adaptation action must be "guided by the best available science and, as appropriate, Indigenous knowledge, knowledge of indigenous peoples and local knowledge systems.

Special relationship with the land

As already mentioned, Indigenous peoples are defined by, inter alia, their close relationship with the land they have traditionally inhabited. In addition to being a right to that land, Article 29 UNDRIP also indicates that Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of these lands or territories and resources.
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The conservation and protection of the environment is closely linked to disaster risk reduction and some farming activities, for example, may in fact increase the risk of disasters by eroding the soil, for example. It is thus key that Indigenous peoples are educated about the potential risks associated with all their land-related activities. According to the Expert Mechanism on the Rights of Indigenous Peoples, their "close relationship with their natural environment makes them particularly vulnerable to disaster risk," given the potential impact of disasters on this relationship which not only defines them but is also central to the survival of their traditional way of life.

In accordance with Article 10 UNDRIP, Indigenous peoples shall not be forcibly removed from their lands or territories. Historically, Indigenous peoples have repeatedly been dispossessed of their traditional lands and thus deprived of the resources on which their livelihood depended, which, in turns, reduces their ability to deal with disasters. Nevertheless, in extreme cases, reducing the risk of disasters may necessitate the relocation of Indigenous communities, for example if their traditional lands are situated in areas at high risk of flooding or landslides. However, relocation may only be possible once the community in question has given its FPIC, has agreed on a form of compensation (which could include a relocation package) and has been offered, if possible, alternative tenure. In this regard the 2005 UN Principles on Housing and Property Restitution for Refugees and Displaced Persons (also known as the Pinheiro Principles) offer some guidance on the procedures and mechanisms necessary to facilitate property restitution. Its Principle 15.3 states that, when appropriate, States should ensure that registration systems record and/or recognize the rights of possession of traditional and indigenous communities to collective lands. At the regional level, the Protocol on the Property Rights of Returning Persons of the International Conference on the Great Lakes Region, in turn, focuses on providing that traditional authorities themselves, along with the administrative ones, should be addressing property disputes. The Special Rapporteur on adequate housing as a component of the right to an adequate standard of living has also suggested, in line with the Pinheiro Principles, that the restitution of housing or property restitution must abide by any form of right to tenure attached to the property in question before the disaster, even if formal registration was lacking.

In addition, the close relationship to nature entertained by Indigenous groups may sometimes require a culturally sensitive approach to what may otherwise be qualified as a hazard or a risk. For example, volcanoes are often seen as being part of Mother Nature within Indigenous spirituality (sometimes refer to as ‘cosmovision’), which means that qualifying them as hazards may be deemed offensive. As a result, it is necessary to define terms carefully when developing disaster-related policies which may affect Indigenous peoples.

Indigenous knowledge

In addition to their special relationship to the land, Indigenous peoples have in common the oral transmission of their histories and their traditional knowledge, which is linked to their closeness to their environment. Article 31 UNDRIP affirms the right of Indigenous peoples to maintain and protect their traditional knowledge, as well as providing safeguards for the protection of the right. Traditional knowledge has a valuable role to play in disaster risk reduction and preparedness, which has been widely recognized. For example, in thousands of years an error that may be prone to disaster, Indigenous communities have gained a particular insight into extreme weather patterns. For example, in Swaziland, floods have been predicted with the height at which birds nest near rivers, and droughts with the number of moths in the air. In the Russian Siberian Arctic, the Nenets people also observe the behaviour of animals closely. For example, if a dog rolls on its back in the snow and crows circle in flock before disappearing, it is a sign that a blizzard is near.
Indigenous knowledge was reported to have saved lives during the 2004 Indian Ocean earthquake, which provoked a tsunami with devastating consequences for Indonesia and other countries. On Simeulue Island, which counts 78,000 inhabitants and is situated within the province of Aceh, off the Indonesian island of Sumatra, only 7 individuals perished, despite the tsunami reaching its shores. This was explained by the use of a traditional warning system, which had been passed down through generations, since the last tsunami hit the island in 1907. Once the earthquake was felt and the ocean was seen receding, people started shouting ‘Smong’ (or Semong), meaning tsunami in the language of the local Devayan people, which led everyone to run for the nearby hills for shelter. In the province of Aceh, where there was no early warning system, there were 200,000 victims.

In order to be useful, Indigenous knowledge must be recognized and protected accordingly, and then utilized appropriately. According to the Expert Mechanism on the Rights of Indigenous Peoples, ‘[A]ll too often, mainstream disaster management institutions have ignored indigenous knowledge, and many successful local practices have disappeared as a consequence of non-indigenous influence. At other times, indigenous peoples’ practices have adapted to changing environments.’ Indigenous knowledge has even been called an ‘underused knowledge reservoir’. It must thus be further integrated in the disaster discourse not only as a matter of respect for Indigenous rights but to strengthen disaster risk reduction and preparedness efforts.

**Indigenous communities within the International Disaster Law framework**

At the international level, there are a number of initiatives specifically dedicated to disaster risk reduction, preparedness, and management. This section considers the inclusion and participation of Indigenous communities in their development and implementation, as well as some good practice examples.

**Risk reduction and preparedness**

Disaster risk reduction and preparedness policies contribute to the protection of human rights, including the rights of Indigenous peoples, by reducing the likelihood of natural hazards having a negative impact on them. The Hyogo Framework for Action (HFA), the key framework for the period 2005–2015 for disaster risk reduction, did not make any specific reference to Indigenous peoples or the need to ensure their full and effective participation, which was criticized by the Expert Mechanism Study. Nevertheless, the HFA recognized the need to consider cultural diversity, age, and vulnerable groups, and the role of traditional knowledge in disaster risk reduction. It also contains a number of strategies that are particularly pertinent for Indigenous peoples, such as the need to develop and strengthen institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards and the empowerment of communities and local authorities to manage and reduce disaster risk by having a community-driven, information, integrated and coordinated response for disaster risk reduction. According to consultations, the follow-up to the HFA, HFA2, should build on a human rights-based approach and be centered on community-level involvement, as well as vulnerable populations, on holding Indigenous peoples.

In May 2013, at the UN International Strategy for Disaster Risk Reduction (UNISDR) Global Platform for Disaster Risk Reduction, there was a side event on engaging Indigenous peoples in the matter, where the need for a dialogue between Indigenous leaders and their non-Indigenous counterparts on this topic was highlighted. The Pan American Health Organization
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(PAHO) and the World Health Organization (WHO) have also published some ‘Recommendations for Engaging Indigenous Peoples in Disaster Risk Reduction’, based on a consultation process with Indigenous delegates from Latin America, the Caribbean, Canada, and the United States, which sought to develop ‘culturally sensitive tools to reduce disaster risk and better protect health during and after disasters’. The Expert Mechanism Study, which itself called for submissions from Indigenous peoples, looked at the possible partnerships between Indigenous peoples and government, and the strategies which may improve their participation in disaster risk reduction.

A gap could thus be identified: the dialogue that would be needed between the Indigenous communities and non-state actors, as many businesses, such as the extractive industry, are likely to have an impact on Indigenous lands and may thus be the source of environmental disasters on their traditional territories. While States should drive disaster risk reduction initiatives at the national level, non-state actors should also be included in such initiatives, when appropriate. This missing link has been somewhat addressed in the Sendai Framework for Disaster Risk Reduction 2015–2030 (Sendai Framework). This non-binding framework recognizes the ‘leading, regulatory and coordination role’ of States in engaging with relevant stakeholders, including Indigenous peoples, but also underlines the need for the public and private sectors to work more closely together and for ‘business to integrate disaster risk into their management practices’.

As already mentioned, traditional knowledge can be key in disaster risk reduction and preparedness strategies and should thus be further integrated, including through dissemination, for example by incorporating it into school curricula. This has been recommended by UNEP which, following its project documenting Indigenous knowledge in Kenya, Tanzania, South Africa, and Namibia, has underlined the need for such knowledge to be taught in schools as well as disseminated among the wider public. For the most efficient use of available data for disaster risk reduction and preparedness, Indigenous knowledge should be blended with scientific and technological means. This has been recognized by the Sendai Framework, which considers the use of traditional knowledge within its guiding principles as it states that disaster risk reduction must be based on scientific information ‘complemented by traditional knowledge’. It also underlines the importance of the local context and the ‘use of traditional, indigenous and local knowledge and practices . . . to complement scientific knowledge’ when conducting disaster risk assessment and developing associated policies and strategies. It is skills that Indigenous peoples through their experience and traditional knowledge, provide an important contribution to the development and implementation of plans and mechanisms, including for early warning.

Disaster management

Once a disaster has struck an Indigenous community, many problems may arise including loss of lives, housing, access to potable water, as well as a general lack of functioning facilities which may inhibit the full realization of a number of human rights. In order to provide relief and facilitate humanitarian assistance to alleviate the impacts of disasters, guidelines have been developed, such as those by the International Federation of the Red Cross. Despite providing recommendations to governments on how to prepare their disaster laws in international disaster operations, including with regard to early warning procedures and protocols, Indigenous peoples as knowledge are generally not mentioned in such instruments. The Sendai Framework states that local authorities must be empowered through regulatory and financial means to work and coordinate with Indigenous peoples in disaster risk management at the local level. The organic should also be the norm, i.e. empowering Indigenous communities to work with their local authorities on disaster management. Furthermore, Indigenous peoples should also be involved in the development of codes, protocols, or other tools at
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the national level when those may impact them, in accordance with the principle of self-
determination, as well as participation in decision-making. Indigenous communities must not
only be at the receiving ends of such instruments but also become their ‘co-authors’, not only to
respect their rights but also to develop the most efficient disaster relief instruments.

In terms of good practice, the Canadian Red Cross has developed, with the Moose Cree
First Nation, emergency preparedness guides, as well as videos and handouts, specifically aimed
at remote northern First Nations communities, in particularly the Ahnisne da-Cree living in the
James Bay area. These guides, including one for families and another for elders, have been publi-
lished in the relevant Indigenous language. The Canadian Red Cross Emergency Preparedness
Guide for Ahnisne da-Cree Elders recognises the specific and unique needs of these communi-
ties. It explains not only why disaster preparedness is important, but also the steps that should
be taken, including knowing the risks, making a plan, and getting emergency kits, including both
girl and go bags in case of evacuation and home emergency preparedness kits in case of having
to stay at home for a long period after the disaster strikes. When considering the risks, the way
of life of the communities is taken into account as it relates to their mobility and the fact they
spend part of the year in a secondary location, such as a ‘bush camp’ during the spring or
fall harvest season. With regard to making a plan, it is recommended to communities to select
a family emergency contact person outside of the community because it is generally easier to
make a long-distance call than a local call following a disaster. Many recommendations are also
addressed to those spending time at a ‘bush camp’, including communicating the location of the
camp and the time one plans to spend there, as well as maintaining regular contact with relatives
or the local radio to be informed of potential disasters. If someone is known to be at a ‘bush camp’
during an emergency, this must be communicated to emergency personnel. Preparedness at home
also means to have all important documents stored securely in one place, including the status card,
but also board games and playing cards. The document dedicated to elders and emergencies
recognises their special space within First Nations communities.

Concluding remarks

Indigenous peoples are particularly vulnerable to disaster because of a number of underlining fac-
tors, including the fact that they generally live in remote areas and in poor conditions. As States
may be held responsible for violating the rights of Indigenous peoples if they fail to protect them
against certain effects of disasters, they have an advantage in including them in all stages when devel-
oping policies regarding disaster risk reduction, preparedness, and management. Such an approach
does not only respect the rights of Indigenous peoples to self-determination and to participation
in decision-making, but also to prevent that States may be held liable for failing to protect them.

As highlighted in this chapter, Indigenous peoples have a special relation with the land that
they have traditionally inhabited and, given the close proximity they have enjoyed with their living
environment, have developed an in-depth knowledge of its functioning, including of possible
extreme weather patterns. Throughout the world, there are examples of Indigenous communities
able to foresee natural hazards and potential disasters through a fine observation of the fauna
and flora around them. While this Indigenous knowledge has now been widely recognised as
relevant in the disaster context, it has yet to be fully utilized. For this to happen, Indigenous knowl-
dge should be comprehensively documented and integrated in disaster preparedness policies and
educational material, including in schools’ curricula.

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So far, Indigenous peoples have not been systematically included in the development of policies geared towards disaster risk reduction and management; they have been the audience rather than the content producer. While a number of good practice examples in this area can be highlighted, Indigenous communities would benefit from being involved in a systematic, comprehensive, and culturally sensitive manner; in the development of disaster policies that may impact them and which may benefit from their participation and knowledge, as underlined in the Sendai Framework. In line with the principle of FPIC, there is thus a need to ensure that the perspectives of Indigenous peoples are adequately integrated into the implementation of all practices and at all stages of the design and implementation of risk reduction projects and activities. Indigenous peoples must not only be consulted in a culturally appropriate manner but the tools developed must also be culturally sensitive. As mentioned, for some communities, natural hazards, such as volcanoes, may be considered as sacred. Integrating an Indigenous perspective in the disaster dialogue also means taking into account their customary laws.

Therefore, it is important not only to recognize the specific vulnerabilities of Indigenous communities with regard to disasters but also to recognize their strengths and how they can contribute to the development of more effective disaster-related policies, including through the use of their traditional knowledge; when adopting such an approach, Indigenous peoples, traditionally viewed as likely victims of disasters, can become true actors of disaster management.

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Ch. House and D. Criddle, Climate Change and Indigenous Peoples in Response to Advocacy Brief, 2010/1.

Notes


10 J.R. Martinez Cobo, ‘Study on the Problem of Discrimination against Indigenous Populations’, UN Doc. E/CN.4/Sub.2/1986/7 and Add. 1–4 (1986), according to whom ‘[I]ndigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them’.

11 All of these criteria have been listed in International Law Association, Final Report of the Rights of Indigenous Peoples Committee, Sofia Conference (2012) 2–3.


14 Ibid 2.

15 See B. Melkevik, Law and Aboriginal Reindeer Herding in Norway (Université Laval Groupe d’études inuit et circumpolaires, 2000) 198.

16 R. Bronen, Climate-Induced Displacement of Alaska Native Communities (Brookings LSE, 30 January 2013) i, 5–6.

17 Ibid 9.


20 All of these have been listed in International Law Association, Final Report of the Rights of Indigenous Peoples Committee, Sofia Conference (2012) 2–3.


28 Ibid paras 7–10.


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...annex paras 8 and 13.

33 HRC, Report of the Special Rapporteur on Adequate Housing as a Component of the Right to an Adequate Standard of Living, and on the Right to Non-Discrimination in This Context, R. Rolnik, Sixteenth Session, UN Doc. A/HRC/16/42 (2010) para 32. See also Rolnik’s chapter in this volume.


40 See, for example, the Case of the Saramaka People v. Suriname, UNCOM, Ser. C, No. 172 (2007), which concerned mining activities which polluted indigenous lands and water resources. Note also that the Commission has stated that severe environmental pollution is a serious concern with the right to be respected as a human being, and that the Commission, in its judgement, held that the right to a healthy environment and to an adequate standard of living is a human right. See ICAHR, Report on the Situation of Human Rights in Ecuador, OEA/Ser.L/VI.96 (1997).

41 A public act acknowledging responsibility and commemorating the victims was part of the reparations award; see case of the Plan de Sánchez Massacre v. Guatemala, IACtHR, Ser C, No. 116 (2004) paras 100–101.

42 Ibid para 102.


44 The Social and Economic Rights Action Centre and the Centre for Economic and Social Rights v. Nigeria, ACtHR, Communications No 101/96 (Decision of 27 October 2001) para 54.

45 While the right to the enjoyment of a safe, clean, healthy, and sustainable environment is an individual right, it cannot be exercised unless the involved actors and appropriate institutions also respect the right to non-discrimination as an individual right. See ICAHR, Report on the Situation of Human Rights in Ecuador, OEA/Ser.L/VI.96 (1997).


48 Ibid art 12(3).

49 See, for example, N. Schrepfer and M. Caterina, ‘On the Margin: Kenya’s Pastoralists’, Internal Displacement Monitoring Centre, Norwegian Refugee Council (March 2014).

50 See, for example, art 8(1), according to which ‘[i]n applying national laws and regulations to the peoples concerned, due regard shall be had to their customs or customary laws.’

51 ILO Convention 169, art 15.

52 They include Argentina, Bolivia, Brazil, Central African Republic, Chile, Colombia, Costa Rica, Denmark, Dominican Republic, Gabon, Guinea, Haiti, Honduras, Mexico, Nicaragua, Paraguay, Peru, Spain, and Venezuela.


54 HRC, Promotion and Protection of the Rights of Indigenous Peoples in Disaster Risk Reduction, Prevention and Preparedness Initiatives (n. 1) para 11, where it stated that several of [UNDRIP] provisions have implications for the promotion and protection of indigenous peoples’ rights in this area, and can provide guidance for the design and implementation of sound disaster risk reduction strategies and interventions.

55 HRC, Promotion and Protection of the Rights of Indigenous Peoples in Disaster Risk Reduction, Prevention and Preparedness Initiatives (n. 1) para 12.

56 See the website of Habitat for Humanity available at www.habitat.org/disaster/mitigation_preparedness, accessed on 7 June 2017. See also the following webpage at www.habitat.org/disaster/programs/programs/11-15-06(accessed on 7 June 2017).

57 HRC, Promotion and Protection of the Rights of Indigenous Peoples in Disaster Risk Reduction, Prevention and Preparedness Initiatives (n. 1) para 15.
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60 HRC, Promotion and Protection of the Rights of Indigenous Peoples in Disaster Risk Reduction, Prevention and Preparedness Initiatives (n. 1) paras 1 and 2.
61 Ibid (n. 58) para 7.
62 Ibid paras 11 and 12.
63 Ibid para 12.
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65 Ibid para 14.
66 Ibid paras 15 and 16.
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84 Ibid para 24(i).
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