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# Change in policy regimes for disaster risk reduction in Fiji and Nepal

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#### ABSTRACT

Much of the disaster risk reduction (DRR) scholarship has focused on failures while neglecting positive developments, particularly in developing countries. In part, this bias reflects the adaptation deficit argument, which suggests we should expect the most vulnerable (i.e., developing) countries to struggle with adaptation due to their socio-political characteristics and heavy exposure to natural hazards. Investigating Fiji and Nepal, this study serves as a plausibility probe, examining how unexpected change in national DRR policy regimes was enabled under such adverse circumstances and exploring the appropriateness of theoretical assumptions suggesting aspects that warrant more testing in future. Following an exploratory approach, this qualitative study uses documentary evidence and secondary literature to illuminate how factors such as leadership, diffusion, and 'focusing events' enabled change. The study finds that in both cases, large-scale disasters accelerated change; however, Fiji was able to build upon continuity in its political leadership, whereas change in Nepal was contingent on international pressure. The findings bolster the case for the theory of 'focusing events', i.e., hazards serving as external shocks opening windows of opportunity, in developing countries. Furthermore, they confirm the importance of continuous commitment and diffusion processes in helping to overcome barriers to adaptation. Thereby, this study refines theoretical assumptions and illustrates the value of studying and learning from success and progress, particularly in the context of developing countries. Finally, the findings of this study underline the need, when analysing the processes of change, to take a closer look at the socio-political contexts - including regime types.

#### 1. Introduction

In 2016, at wind speeds of up to 325 Kph – faster than the top speed of most high-speed trains – tropical cyclone Winston rolled over the Fiji islands. It brought devastation in its wake, causing \$600 million in damages and affecting more 60% of the population [1]. In Nepal, the Gorkha earthquake and its aftershocks left more than 600,000 homes destroyed and about some 9000 people dead, as well as affecting more than 5.5 million people and causing losses of more than \$5 billion [1]. Facing as they do the regular threat of large-scale disaster due to natural hazards, developing countries need to adapt and to introduce changes to their approach to and policy regime for disaster risk reduction (DRR) to reduce the risk for both lives and livelihoods. Sustainable development requires such changes, especially since developing countries are expected to bear the brunt of climate change, due to their geographical exposure and their high vulnerability [2–7]. However, scholars have stated time and again that "[t]he most vulnerable are the least likely to adapt"

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[8, p. 25]. This idea is at the core of the so-called 'adaptation deficit argument' introduced by Ian Burton [9]. This deficit is furthermore said to be widening, due to unstable institutions, a scarcity of deployable resources, and other development-related challenges [10,11]. This points to a larger puzzle.

Under these adverse circumstances, researchers expect, change is most difficult where it is most needed; developing countries will find it hard to adapt and to introduce the necessary innovations [12]. Notwithstanding this, however, some developing countries *have* been able to introduce substantial changes in their DRR policy regimes – i.e., government arrangements that are made up of "the constellation of ideas, institutional arrangements and interests ... for addressing particular problems" [13, p. 446]. How can developing countries – which are said to suffer from such challenges as low capacity, fragile institutions, and a low quality of governance and government – overcome barriers to change in their policy regimes? Answering this question adequately is of critical importance for achieving adaptation and sustainable development, both in general and with regard to climate change in particular.

Researchers have identified significant changes in the DRR policy regime in both Nepal and Fiji – despite their vulnerability and exposure, their history of violent turmoil in the 2000s, and other development challenges they face [14,15]. This study examines these two cases in an effort to illuminate how prevalent barriers can be surmounted even in adverse circumstances. Thereby, this illustrative case study also serves as a plausibility probe, exploring and investigating the appropriateness of theoretical assumptions, contributing to the refinement of theory and suggesting aspects that warrant more intensive and laborious testing in future [16–19].

Critical factors in focus that have been predominant in the literature include leadership, diffusion processes, and 'focusing events' i.e., hazards serving as external shocks opening windows of opportunity. This study calls for a shift in focus towards positive experiences rather than failures and disasters in order to enable learning processes, which are both scarce and badly needed within DRR [20,21]. At the same time, this article aims to contribute to the wider fields of political science and development studies, bringing together literatures on policy regimes, political change, and DRR in the context of developing countries.

#### 2. Barriers and enabling factors for change in the DRR policy regime

In the words of the United Nations Office for Disaster Risk Reduction (UNDRR), DRR is "aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development" [22]. Scholars have pointed out before that sustainable development and climate change adaptation are irreducibly socio-political processes [23–26] that are closely interlinked with DRR [27–29]. DRR, therefore, is also subject to political dynamics, which can both enable and impede change.

DRR policy regimes, then, encompass the governing arrangements that "depict the constellation of ideas, institutional arrangements, and interests" [13, p. 446], which are involved when countries attempt to avoid new risks and to reduce old ones. While ideas take the form of certain paradigms and furnish the foundation for policy, institutional arrangements – power relations, bureaucratic barriers, and other such formal and informal features – structure authority, attention, relationships, and flows of information. Interests, finally, relate to the engagement and mobilisation of constituencies or stakeholders [13]. This comes close to Kathleen Tierney's definition of disaster governance: "the interrelated sets of norms, organisational and institutional actors, and practices ... that are designed to reduce the impacts and losses associated with disasters" [30, p. 344]. Tierney's broad definition of norms embraces both formal laws and regulations and informal norms, including standards, frameworks, and other mechanisms that encourage collective action and the diffusion of best practices.

# 2.1. The DRR policy regime and change

There is some variation in DRR policy regimes across countries and over time. Different nations have enacted different policies and set up diverse institutional arrangements, in accordance with ideas, beliefs, and assumptions. These differing approaches to and implementation of DRR are strongly shaped by the specific political contexts from which they have emerged.

In recent decades, both scholars and practitioners have highlighted the importance of thinking beyond responsive disaster management, with its focus on search-and-rescue operations and on recovery [31]. Acknowledging the whole disaster cycle – including phases when no disasters occur – is an important step. Mitigation and prevention now receive more attention; no longer is there such a one-sided stress on pre-hazard preparedness and on post-disaster relief and recovery. Mitigation and prevention involve attempts to reduce vulnerability and to advance premeditated and precautionary adaptation to natural hazards.

Approaches to DRR can change in a subtle and implicit way, and evidence thereof can be found in the political and public discourses. Other changes are more prominent and can be identified more easily. Policy adjustments and innovations are set out in state legislation; modifications of institutions and other arrangements – the introduction of new authorities, regulations, organisations, and structures – are most often anchored in policy documents. Different actors enter the policy field and bring in their ideas, while perhaps representing new interests. Taken together, such changes can result in substantial alterations in a DRR policy regime. They may range from small incremental changes to rapid revolutions in an entire system. Yet, despite this variation, common barriers and enabling factors are plainly present.

# 2.2. Barriers

A variety of socio-political and context-specific preconditions play a crucial role in the development of DRR policy regimes. "[P] roblems associated with disaster vulnerability and governance are inextricably linked to broader development challenges" [30, p. 347]. An expanding body of literature has focused on identifying barriers – also called challenges, obstacles, constraints, or hurdles – that impede adaptation [10,32]. Scholars have pointed to the role of power and of political dynamics – including bureaucratic politics, institutional capacities, and conflicts of interests – in impeding change [33]; A [26,34,35].

Who decides and who is included in design, planning, and implementation will affect how vulnerabilities are shaped [23,36]. Inequitable stakeholder participation can result in exclusion and maladaptation, by funnelling funding to other groups than the ones most in need, thereby reinforcing and exacerbating existing vulnerabilities [37–40]. DRR policy is a political environment that Peter May would call a 'policy without publics' – i.e., a policy area that is characterised by a limited development of interest groups around the issue, and which is seemingly apolitical due to the prominent role of technocratic expertise within it [41]. Thus, a small number of people – most often elites – may decide for all involved, in the process disregarding the needs of some or failing to understand the (social) complexity of vulnerability within the particular context in question [24,36,42]. However, there has never been a stronger call for inclusive DRR with participatory processes for stakeholder involvement than today.

Problems connected with the role of power in this area include a lack of leadership and a failure to set out clear areas of responsibility. Both can present hurdles to collaboration and institutional change, resulting in inertia or failures of coordination due to conflicting interests, political stalemates, or blockades from powerful veto players [32,43,44]. Institutional fragmentation can jeopardise adaptation and DRR, undermining cross-sectoral cooperation and concerted governmental action by obscuring areas of authority and chains of command, pitting actors against each other [10,45]. Actors may clash over preferences and interests as well as values and beliefs, leading to conflicts over how to frame problems, which courses of action to choose, and the like [43,44,46,47]. This can exacerbate pre-existing stalemates in parliaments, councils, committees, and other decision-making arenas.

There is also a more direct interplay between natural hazards and political dynamics. In the case of DRR, as in that of climate change adaptation [32], uncertainties and ambiguities regarding the hazards and their impacts pose substantial barriers to change. This uncertainty can make DRR a low priority for policymakers, as can the fact that mitigation efforts are expensive, while the positive effects are far from immediate and easily invisible to the electorate [10,20,32,48]. Frequent natural hazards, on the other hand, can overwhelm and exhaust the system, leading to a standstill in institutional development and adaptation processes, as the system devotes all its efforts to resolving the crisis at hand, as a study of Mozambique shows [43]. Such frequent events may also result in a reduced capacity to deal with future events, due to the cumulative impact of past ones [49,50]. Indeed, disasters may cause systems to collapse when they exceed the latter's ability to cope [50].

Other well-documented barriers to change include time constraints, a lack of appropriate communication and information, and insufficient financial, technical, and/or human resources [32,43–45]. In addition, underlying social structures and challenges such as inequality, inequity, poverty, power imbalances, and religious tensions can impede adaptation, leading to maladaptation and creating, reinforcing, or redistributing vulnerabilities [32,38,51,52]. These considerations show clearly that politics plays a crucial role in DRR, and that achieving change in DRR policy regimes requires that we find ways to overcome the above-mentioned barriers.

#### 2.3. Enabling factors

Based on a variety of theoretical points of departure, scholars have proposed, identified, and utilised a wide range of enabling factors, according to the specific focus and the context of the respective research (see, e.g., Refs. [53,54]. While the expanding but fragmented body of literature has created a multitude of theoretical assumptions, there have been few attempts to employ multiple perspectives at the same time. Consequently, little effort has been spent on refining these suppositions in combination through empirical studies. This study contributes with its exploration of the applicability and appropriateness of such theoretical assumptions utilising several theoretical points of departure. Acknowledging the fact that the interplay of these factors may play a central role in developing countries that face adverse circumstances, this study focuses on the role of three specific aspects that have been predominant in the literature: leadership, diffusion processes, and 'focusing events'.

#### 2.3.1. Committed political leadership

Leadership has been held out as a crucial facilitating factor for change and institution-building in the past [55], and it is recognised as being at the core of many reforms [56]. Without committed political leadership and will, there is little hope for change [57]. Leadership and trust are also important for finding consensus, focusing attention, and establishing coordination, cooperation, and collaboration [58,59]. Some argue that, in the case concerned here (adaptation to changing natural conditions), commitment from the highest level is necessary [45]. However, leadership can manifest in a variety of ways [10]. It can be exerted by a prime minister or other individuals [49,58,60], by government departments or agencies [45], by international organisations [61], or by NGOs or other actors in civil society [58,62]. It may materialise in a shared vision, in continuous financial or technical support, in advocacy for development and change, or in the empowerment of a central agency charged with responsibility for related activities. All of these features underline the importance of leadership in the context of DRR. Leadership is needed to develop and implement the ideas, policies, processes, and institutions necessary for managing all aspects of DRR – from adaptation and mitigation to response and recovery.

#### 2.3.2. Diffusion processes

Another potentially enabling factor for change in policy regimes are diffusion processes, which can take a multitude of forms, but build on the assumption that pre-existing ideas and solutions are shared across jurisdictional or national borders [63,64]. For the policy realm of DRR, learning from earlier adopters might be the most relevant mechanism of diffusion [65]. However, also, experiences and events in other countries may have a direct impact on national policy on the other side of the world, as can be seen in the case of nuclear meltdown in Fukushima in the aftermath of the Tōhoku earthquake and the corresponding tsunami in 2011 [66]. Hazard events and disasters can be exogenous shocks that spark immediate action or slowly implemented change through diffusion, since they might reveal important shortcomings or successful strategies in place [67].

Diffusion processes can also take place in international arenas such as regional and international DRR forums, international regimes

such as the Hyogo Framework, or other multi-stakeholder platforms on different levels. Through sharing of experiences and knowledge, ideas and beliefs about problems and solutions spread, propagating specific approaches and strategies, paradigms, policies, and best practices. Cooperation and collaboration between actors from different sectors and levels generates synergies [68], resulting in new initiatives and changes in national DRR policy regimes.

Furthermore, participation in such arenas can build pressure on national actors to adhere to global trends and best practices in order to attract funding or spur development in their countries [61,69]. Through exposure, through pressure, or through cooperation and collaboration, substantial alterations of the DRR policy regime can unfold. Knowledge may be integrated, targets introduced, best practices adopted [15,43]; including global trends such as decentralisation, the experimentation with new solutions, the employment of participatory and community-based approaches, or the integration of traditional knowledge [30,53,70–73].

Even within a national DRR policy regime, diverse interests and ideas come together. Actors from different levels and backgrounds with different experience, interests, beliefs, and values meet to collaborate and build coalitions, or to oppose and clash with each other. Thus, the DRR policy regime can be influenced by a variety of internal and external actors, institutions, and dynamics on many different levels [30]. For instance, NGOs acting on various levels play vital roles, contributing to the mobilisation of actors, to the diffusion of knowledge, to the facilitation of transformative action, and to the execution of humanitarian responses [62].

Together, but even separately, processes of diffusion have the potential to alter policy regimes substantially. Due to the characteristics of the DRR policy regime with its multitude and variety of actors and its polycentric nature, these processes are of importance for this specific public policy field.

#### 2.3.3. Focusing events and politicisation

Due to disruptive hazard events, changes in policy regimes – in policies and institutional arrangements – can take place abruptly and quickly [74–78]. Building codes may be adapted; new institutions may be created [58]. External shocks such as large-scale disasters and catastrophes have the potential to open a 'window of opportunity' for changes in dominant ways of thinking and acting [79, 80]. Extraordinary disturbances serve as 'focusing events': they expose vulnerabilities and disrupt established systems and processes [60,75,77,81–84]. Mark Liechty [85] argues that "disasters open up dramatically new spaces of contingencies" (p. 9) and produce radically new epistemological fields, making outcomes even more unpredictable, especially due to the power struggles that take place when a disaster is politicised [86,87]. While recent evidence from large-N studies has been weak for the claim that disasters change DRR activities and institutions [88,89], there is anecdotal evidence from individual case studies that disasters can indeed induce change, such as by increasing public awareness of problems and bolstering political support for addressing them [43,57].

#### 3. Methodological approach

The aim of this study is to examine how unexpected change in national DRR policy regimes can be enabled under adverse circumstances, and to explore and refine theoretical assumptions through their empirical exploration. If we are to learn more about enabling factors and mechanisms for overcoming barriers to change in DRR policy regimes, we must focus our efforts on interdependencies, dynamics, comparative designs, and time-sensitive methods [10]. We need to put the spotlight on the interplay between barriers and enabling factors, and shed light on how the former can by overcome by investigating developments over time.

This case study approach fulfils two distinct purposes. On the one hand, it represents a theory-guided idiographic case study [19], which "often provide [...] better explanations and understandings of the key aspects" [19, p. 5], offering detailed investigations of specific cases. On the other hand, the investigation serves as a plausibility probe, which are commonly used in exploratory studies, when we know relatively little from empirical investigations and theories remain largely untested [17,90], contributing to the exploration and refinement of theory [16,18,19]. As such, the study empirically investigates the appropriateness of theoretical explanations regarding enabling factors of change in DRR policy regimes in order to identify aspects that warrant more intensive, laborious, and costly testing in future [16,17].

For fulfilling these purposes, two specific instances of progress were selected. The following section presents insights into the case selection logic. Subsequently, I provide information on the data collection and analysis.

#### 3.1. Case selection

The selection of the cases followed two distinct logics in order to provide investigations of two instances of unexpected change in national DRR policy regimes. First, the two countries were selected based on the change in their national DRR policy regimes they exhibit. While Fiji displayed extraordinary progress in their DRR measures [15], Nepal introduced several new DRR paradigms with implications for the implementation [14]. Thus, despite the fact that both countries show signs of considerable change, the changes in the two countries are qualitatively different.

Second, the two instances of change in DRR policy regimes exhibit important contextual similarities, which represent considerable barriers to change. Although there are differences in the portfolio of natural hazards Fiji and Nepal have to face, both countries belong to the category of the most vulnerable countries in the world and are characterised by high exposure and vulnerability to multiple natural hazards with an history of devastating events [1,91–93]. Fiji as a small island developing state (SIDS) and Nepal as a land-locked least developed country are both heavily dependent on international aid in case of large-scale disasters and have to face similar challenges such as reaching remote areas for aid and recovery but also distributing knowledge and information. At the same time, both countries are highly divided countries that struggle to uphold civil liberties and democracy [36,94,95]. According to the Democracy Index [96], the countries classify as hybrid regimes between flawed democracies and authoritarian regimes, which were established in the aftermaths of violent turmoil in the 2000s. Introductory sections of the country studies present the circumstances for

each of the countries in more detail (see 4.1.1. and 4.2.1.).

Yet, despite these circumstances and contrary to expectation, both countries have introduced substantial changes and advances in their DRR policy regime over the last 15 years [14,15]). The next subsection presents the material and the analytical approach.

#### 3.2. Data collection and analysis

This qualitative study uses documentary evidence and secondary literature to investigate instances of unexpected change in DRR policy regimes in developing countries. Data for the thick description of the two cases was collected and reviewed from afar. The extensive material covered includes policies, frameworks, and policy documents such as acts, plans, policy statements, and strategy papers from both national contexts; as well as reports from national or international actors associated with disaster governance, such as the UNDRR, the World Bank, and relevant ministries. Applicable materials were identified through national reports on the status of national DRR policy regimes, especially in connection with the UN-led Hyogo Framework for Action and the Sendai Framework for Disaster Risk Reduction, as well as through secondary research on related questions.

Furthermore, secondary research contributed substantially to the findings of this study. This includes fieldwork and interview studies by renowned scholars and analysts with particular insight into the cases. Interviews specifically designed for this study were not conducted due to access and language barriers. Actors involved in DRR prioritised the pandemic response, and fieldwork to establish personal relationships and trust through close contact was not feasible. As an untrusted outsider, prospects for valuable insights were small in particular in these two national contexts (e.g., Refs. [36,97,98]. Instead, this study draws from the extensive work of established researchers, who have conducted research and assessments in the countries for decades forming networks, trust, and rapport with all kinds of actors as well as gaining experience in interpreting and understanding the intricacies of the national and cultural contexts and interview answers. In that way, these studies provide invaluable insights contributing with the voices of stakeholders, local officials, and experts from a variety of relevant contexts. The utilisation of such research enabled the long-term approach of this study.

When investigating the materials, I paid specific attention to changes in the development of the DRR policy regime, in particular with regard to ideas, paradigms, policies, institutional arrangements, and interest constellations. A search for evidence of enabling factors – which led to change or helped to overcome barriers to change – guided the analysis. Theoretical considerations suggested a need to investigate the role of leadership, diffusion, and focusing events. Leadership could be identified when particular entities, including individual and collective actors – ministers, organisations, government agencies – played key roles in shaping or changing the national DRR policy regime. For instance, documents may indicate actors such as NGOs or an agency pushing for changes of the DRR policy regime. Diffusion processes comprise processes and interactions such as engagement and participation in diverse arenas, as well as pressures on an international, national, or sub-national scale that facilitate changes in a national DRR policy regime. Mentioning of specific international regimes or multi-stakeholder arenas in policy documents reveals substantial influence on the national developments. Focusing events are external shocks – in particular hazard events – that induce actions resulting in substantial, long-term modifications in a DRR policy regime. Reference to such events in national plans or policies, for example, signifies the importance of the occurrence for change conducted in response.

# 4. Case studies

#### 4.1. Fiji: committed and continuous leadership driven by national needs and hazard events

Fiji offers a prime example of an evolving DRR policy regime that has proved capable at managing large-scale natural hazards and their impacts [99]. For a member of the group of small island developing states (SIDS), Fiji is well researched, particularly at the community level. Yet, little research has been done of the country's DRR policy regime at the national level. However, a recent study of global change in DRR measures identified Fiji as an exceptional outlier in the progress it has achieved in its DRR efforts [15]. In the HFA reports, Fiji indicates the improvements made and outlines the developments in the national DRR policy regime, while reflecting on issues that persist [100,101]. Further gathered material corroborates the comprehensive advances made and the analysis points towards continued commitment from highest levels, at the same time as major events accelerated changes.

# 4.1.1. Preconditions and pre-existing barriers

As one of the SIDS in the South Pacific, Fiji belongs to the most vulnerable countries in the world due to its remote location, its dependence on assistance, its low level of economic diversification, and the high risk for disasters from natural hazards [91]. Already in the 1990s, the IPCC and the UNFCCC recognised the threat confronting the SIDS [102]. This has not changed, as more recent reports show [103,104]. Fiji has had to face substantial threats from rising sea levels, land erosion, earthquakes, tsunamis, droughts, floods, landslides, and storms. However, tropical cyclones (TC) pose the greatest threat to the country, because of their regular occurrence and their devastating impact, accounting for more than 80% of economic and human losses between 1990 and 2020 [1]. Consisting as Fiji does of about 100 inhabited islands, the country faces challenges in reaching remote areas with help and recovery efforts, as well as with knowledge distribution. Traditional knowledge among its people can conflict with new ways of living, reducing awareness and preparedness alike [105]. Furthermore, housing and sewage systems in Fiji are known to be vulnerable to frequent hazards; while building standards are not implemented or enforced [100,106,107]. As a result of its limited resources and capacities, then, the country remains dependent on partner and donor organisations for financial, technical, and human resources in connection with response and

See Ref. [91] for a broader discussion of the vulnerabilities of small island states.

#### recovery [99,106].

A further barrier to change and progress lies in the considerable turmoil Fiji experienced in the 2000s, in which several coups d'état figured. After the adoption of a new constitution, this time of crisis came to an end with the first election in 2014, in which coup leader and already Acting Prime Minister Commodore Josaia Voreqe Bainimarama won a majority with his new founded FijiFirst party. Yet Fiji remains, despite provisions for minority groups in its new constitution and continuity in its government more or less since 2007, a sharply divided country with "racial and land issues" [94] between indigenous *iTaukei* and Indo-Fijians at the heart. According to the Democracy Index put out by The Economist Intelligence Unit [96], Fiji's regime today is a hybrid between a flawed democracy and an authoritarian regime, with scores comparable to those of Armenia, Bhutan, Georgia, Honduras, Hong Kong, Liberia, Madagascar, Nepal, and Senegal. Varieties of Democracy (V-Dem) and Human Rights Watch paint even a darker picture, in which civil liberties are poorly respected [95,108–110]. The island state is said to struggle with corruption and mismanagement [111]; with police brutality, restrictive legislation, and a lack of media freedom [112]; and with intimidation and silencing not just of media but also of civil society actors [113].

#### 4.1.2. Committed political leadership

Leadership has been at the core of Fiji's approach to adapting its DRR policy regime. The Fijian government has shown continuous dedication and commitment to improving national DRR. Under the administration of Prime Minister Bainimarama, an array of changes affecting the country's DRR policy regime have been introduced, although substantial efforts in this area go further back – to the National Disaster Management Plan (1995) and Act (1998). An elaborate governance structure has been established, with a network of policies, frameworks, platforms, and agencies. At its centre, and bearing much responsibility, stands the National Disaster Management Office (NDMO), established in 2001. Its task is to coordinate and manage disaster activities, including preparedness, mitigation, and response. Its programmes involve training, awareness-raising, relocation, and the construction of seawalls and evacuation centres. As seen in the aftermath of TC Winston (the strongest TC that Fiji has ever experienced), NDMO's authority and leadership was generally acknowledged – a fact which facilitated the conduct of post-event efforts [99]. The establishment and empowerment of an agency focused on a single area - which has been called for in other contexts [114] - resulted in an improved capacity to manage all relevant elements during the whole disaster cycle. Despite the threat of knowledge loss through retirement and brain drain, the Fijian government has showed commitment in empowering and continuously funding the agency [101]. This has enabled national adaptation in connection with DRR to continue. Civil society organisations agree that there are designated offices responsible for assessing and addressing the mains threats of communities as well as legally recognised mechanisms to engage communities in resilience building and government budget specifically allocated for addressing identified risks and threats, although access to information and resources for communities is considerably limited [115]. The same data from the Global Network of Civil Society Organisations for Disaster Reduction (GNDR) attests that the national government is working to ensure coherence between strategies to reduce risks, adapt to climate change, and reduce poverty, although the majority local government respondents state they are only to a very limited extent able to influence in the matter [115].

In addition, Acting PM Bainimarama set participatory processes in motion for the creation of a new constitution, which came into effect in 2013. The adoption of this document marked a milestone for the country and its development. Through its abolition of the ethnically based provisions of the earlier electoral system stipulated in the Constitution of 1997 – provisions which had favoured the *iTaukei* –, the new Constitution of 2013 established the preconditions for a more nearly equal distribution of power, thereby furthering the de-marginalisation of citizens of non-native Fijian heritage (among them Indo-Fijians, who alone make up some 40% of the population). By empowering marginalised populations and making their voices heard, these transformational processes enhanced the preconditions for changing Fiji's DRR policy regime. The Constitution, together with the *Green Growth Framework*, is also thought to have furnished an important context for ten important policies connected to DRR, five of which have been introduced since 2005 [116]. The national importance of this framework, and the central role of political leadership, are underlined by the practice of appointing the prime minister as chairperson of the multi-stakeholder panel that oversees the country's DRR efforts [117].

# 4.1.3. Diffusion processes

Alongside strong government leadership, diffusion processes have contributed to the development of Fiji's DRR policy regime through multi-level collaboration, international regimes, and global dynamics. As a member of the SIDS, Fiji depends on international actors for resources, relief, and recovery. These in turn exert influence on the country's development. The Pacific islands pool resources in several supranational regional organisations, such as the Pacific Community (SPC, previously the South Pacific Commission) and the Pacific Regional Environmental Programme (SPREP), which help their members to fulfil their international obligations on sustainability and the environment [118]. The vital role of international collaboration and of dependency on external resources and expertise can also be seen in the care that Fiji takes in linking its DRR policies – as outlined in the *National Disaster Risk Reduction Policy 2018–2030* [116] – to the global and regional context. The country connects its goals and activities with frameworks such as the Sendai Framework for Disaster Risk Reduction, the Paris Agreement and Sustainable Development Goals, the Framework for Resilient Development in the Pacific, and the Pacific Framework for the Rights of Persons with Disabilities [119]. Fiji's internal capacities are limited and its influence on the global level is small, but these weaknesses are offset by the country's participation in networks of international collaboration and cooperation.

<sup>&</sup>lt;sup>2</sup> Commodore Frank Bainimarama, who had served as interim prime minister since the coup in 2006, was elected prime minister in 2014 in the first election after the adoption of a new constitution.

Furthermore, Fiji's close cooperation with international organisations has shaped its institutional DRR arrangements at the national level. Since the introduction of the new approach in 2013, these arrangements resemble the global cluster system for humanitarian response employed by the United Nations and its partner organisations [120]. The new approach based on thematic clusters<sup>3</sup> has enabled the integration of DRR into other policy areas overseen by government ministries, facilitating collaboration with internal and external bodies on all levels: donors, foreign governments, humanitarian partners, civil society actors, national and international NGOs. Among these many bodies are, for instance, AusAID, UNICEF, the WHO, the police, and the Fiji Meteorological Services. Ever since, the clusters – as 'joint coordination forums' [99, p. 24] – have mainstreamed DRR into a variety of policy domains. The resemblance of Fiji's system to the UN's has facilitated a better understanding of the role of each cluster, encouraged access to terms of reference and standard operating procedures, and enhanced the potential for partnering, training, and funding without redundancies or overlapping responsibilities [120]. This exemplifies the role international institutions have played in the development of the country's domestic DRR policy regime, including its institutional architecture. Put to the test by TC Winston, the cluster system was judged by external organisations such as the World Bank to have proved "effective in its ability to coordinate response at the national level and work with all humanitarian actors" [99, p. 5]. This confirms that Fiji's inclusive and integrated process has helped strengthen its DRR policy regime.

Global trends and ideas have contributed to these advances, among other things by prompting important paradigm shifts. These dynamics have not only resulted in the mainstreaming of DRR into a diversity of policy fields, such as through the cluster system; it may also be the reason why Fiji advocates crosscutting, horizontal integration of DRR and climate change adaptation (beyond so-called silo approaches, in which different policy domains act independently of each other). This can be seen in the Green Growth Framework [117] and the National Disaster Risk Reduction Policy 2018–2030 [116]. The latter also emphasises the need for a participatory and systematic approach, as well as the decentralisation of the DRR policy regime, as called for in the Hyogo and Sendai Frameworks. Another consequence of these global trends was the establishment of the Joint National Platform for Disaster Risk Reduction and Climate Change [121], which implemented a paradigm shift by integrating the two fields. However, reports and research indicated that even after the establishment stakeholder collaboration as well as knowledge diffusion are still in need of improvement [122,123], despite the fact that civil society organisations actively advocate community priorities at the national platform [115]. This reflects the notion that local governments could do more in involving communities [115]. Furthermore, the creation of a National Adaptation Plan [119] and of an Adaptation Framework [124] can be attributed to the global efforts driven by the UN [125]. All of these changes were milestones. Not only did they strengthen coordination and communication between different levels (i.e., vertically) and different sectors (horizontally); they also integrated climate change adaptation and DRR. It remains to be seen what the practical effects will be, but these developments point to a definite increase in institutional capacity. Bringing together actors from two closely related policy areas, they encourage substantial synergies [126,127], thereby shaping and enhancing Fiji's DRR policy regime.

Another striking feature of Fiji's approach to DRR is the attitude towards experimentation and the role of established processes. This includes, firstly, cooperation between different national actors, as seen in the case of civil-military cooperation, which enables fast and complex logistical support in case of disaster. The response to TC Winston showed this, and the Fijian government has been commended for the strong institutional capacity produced by this cooperation [99]. Secondly, the Fiji government has shown its openness to experimentation through its utilisation of established social protection mechanisms for targeting portions of the population in disaster relief. In using the social protection mechanisms in this unorthodox and innovative way, it displayed this openness in response to TC Winston in 2015, enabling fast and targeted pay-outs to vulnerable households [99], resulting in faster recovery [128]. The Fijian authorities have not only cultivated a culture of drawing lessons and of reviewing policies, plans, and strategies; they have also experimented with – and implemented – innovative solutions for future events.

# 4.1.4. External shocks

Hazard events have played a crucial role in the development of Fiji's DRR policy regime. The implementation of the cluster system was a direct response to TC Evan, and it has characterised Fiji's disaster governance ever since. Evidence is the presentation and introduction of the cluster system in the aftermath of the cyclone [120]. In addition, the experience of TC Evan and TC Winston sparked action, leading to a rapid development of policies, plans, strategies, and frameworks. These have resulted in an enormous body of policy documents and policies, culminating most recently in the *National Disaster Risk Reduction Policy 2018–2030* [116] and the first *National Adaptation Plan* [119]. Frequent storms and floods have put DRR on the agenda time and again, increasing awareness of the vulnerability and exposure of the country and its people, and speeding up changes in the national DRR policy regime.

# 4.2. Nepal: change induced by pressure

Nepal's policy regime for DRR has undergone considerable change since the 2000s. Previous researchers have identified paradigm shifts and their causes in this regard, as well as changes in the country's disaster policies and practices [14,129]. However, efforts to carry out these changes and to implement new practices have been characterised by a lack of coordination, a shortage of technical capabilities, an absence of resources [129–133], a lack of local leadership [134,135], and an abundance of power struggles [36]. These barriers obscure and impede the operation of enabling factors and contribute to the messy landscape of Nepal's DRR policy regime. Thus, all in all, while being substantial, the changes cannot be seen as comprehensive, constituting a qualitative difference in change to

<sup>&</sup>lt;sup>3</sup> Full list of clusters: A Core cluster next to the thematic clusters of (1) Education, (2) Public Works and Utilities, (3) Health and Nutrition, (4) Water, Sanitation and Hygiene (WASH), (5) Shelter, (6) Logistics, (7) Food Security and Livelihoods, and (8) Safety and Protection [120]. According to Ref. [99]; there was also a cluster of Communications during TC Winston.

Fiji's DRR policy regime.

# 4.2.1. Preconditions and pre-existing barriers

The landlocked country of Nepal is one of the least developed countries in the world. It is also one of the most vulnerable, being prone to natural hazards such as earthquakes, floods, landslides, and extreme weather events [1,93,136]. According to UNDP, the Himalayan country ranks high on vulnerability to climate change, earthquakes, and floods, and its vulnerability continues to grow (UNDP, n. d.). Furthermore, Nepal's vulnerability to natural hazards is aggravated by social, political, and economic conditions, among them corruption, state incapacity, deeply rooted patterns of social exclusion, and other development challenges like widespread poverty, low levels of literacy, and high rates of hunger [110,137].

Ever since the decade-long civil war in Nepal between 1996 and 2006, there has been no stability in government [138]. Nepalese politics has been characterised largely by parliamentary gridlock and political stalemate. A constitution was long lacking. Not only has it been difficult to build majorities in parliament for passing legislation; numerous mergers and divisions between political parties have also marked the political landscape, resulting in many changes of prime minister since 2006. As in Fiji, it has been a struggle in Nepal to uphold civil liberties and democracy. The country is likewise classified as a hybrid regime according to the Democracy Index [96]. As recently as in 2019, the government proposed new legislation curtailing freedom of expression, including by journalists; and laws against discrimination either are lacking or are not enforced, putting women, disabled persons, and ethnic minorities in harm's way [109]. At the same time, both of the neighbouring great powers – India and China – are vying for influence within the country, supporting opposing parties and interest groups and fuelling political and ethnic struggles [85,139].

In general, Nepal's government apparatus and institutions are considered weak [135,137]. The country remains highly divided, as can be seen in its parliament – notwithstanding the fact that some researchers have held out the country as a "success story of participatory resource governance" [36, p. 15]. Discrimination along lines of gender, caste, ethnicity, class, age, geography, and political party mark much of the implementation of policy in the country, including in connection with DRR [140]. For instance, government corruption obstructs the dispersal of aid in recovery processes, and minority communities – despite being disproportionally affected – struggle to obtain adequate relief in the wake of disasters, even in connection with basic shelter [108]. Moreover, in the absence, of a properly functioning platform for inter-agency coordination and collaboration [131], Nepal suffers from poor coordination and weak DRR institutions. This is evident in the weak enforcement of building codes [141], and in the ongoing power struggles that take place within government agencies due to overlapping responsibilities [14,131,142]. Despite being an early adopter in South Asia with regard to DRR policy, as seen in the *Natural Calamity Act* of 1982 [130], Nepal suffered from stagnation in its DRR policy regime until the late 1990s and 2000s, illustrating the barriers to change and innovation.

#### 4.2.2. A lack of committed political leadership

Leadership in Nepal is not nearly as evident as in Fiji, and centres of power are harder to locate [135]. Some observers even argue that Nepal's DRR policy regime lacks leadership altogether [136]. Indeed, a lack of government engagement has shaped the country's landscape for a long time, leading at all levels to low capacity, institutional inertia, an unclear division of responsibilities, and an inability to mainstream DRR across ministerial sectors [114,141,143]. An independent consultant described the situation as "different organisations are responsible for different things and there's never any coordination between them. There's always a very disjointed approach and there's a reluctance to ever come together" ([114]; p. 33).

Donors shape government priorities, but the Nepalese state remains powerful, and it tries to block attempts by international actors to bypass or ignore it [135,138]. However, parliamentary gridlock has long impeded the proper implementation of policy, leading among other things to protracted and futile revisions of vital DRR policies [85,114,143,144], and hampering changes in the DRR policy regime. It is these political stalemates that have impelled international and non-governmental organisations to take the lead for a variety of adaptation and DRR projects [14,114]. This view is shared among international and bilateral NGOs and donor organisations, and was formulated, for instance, by one representative of an international NGO as "NGOs are there because the government is not doing so. If the government's perfect there is no need of NGOs" [114, p. 33]. A Nepali government official mirrored that view in an interview: "[...] the officials cannot always go to the field so the gap has to be filled with the help of the NGOs, CBOs or those people who are really working in those fields" [114, p. 33]. At times, this has caused tension with Nepalese state authorities, especially in response and recovery situations [138]. At the same time, due to corruption and a lack of transparency, communities have put their trust in NGOs, which have successfully brought about changes on the ground [14]. Civil society actors have also been privileged over local governments, which are disenfranchised and marginalised, both materially and discursively speaking [145,146]. True, the latter were given considerable powers and responsibilities by the Local Self Governance Act of 1999 and the Constitution of Nepal [142,147], but they still lack resources and capacity [131]. In any case, low-level institutions and actors – governmental and non-governmental alike – play a significant role in mobilising communities for disaster mitigation activities, thereby strengthening DRR at the local level [129].

With two recent provisions – the *Disaster Risk Reduction and Management Act, 2074* [148] and the *National Policy for Disaster Risk Reduction* of *2018* [149] – having replaced the outdated and reactive *Natural Calamity Act* of 1982, Nepal has introduced a more rigorous DRR policy regime at the national level, with new institutional arrangements. These include the new National Council for Disaster Risk Reduction and Management, under the chairmanship of the Prime Minister; the Executive Committee for policy implementation under the direction of the Ministry of Home Affairs (MoHA); and the National Disaster Risk Reduction and Management Authority (NDRRMA), a secretariat that supplements local and provincial authorities at the national level [143]. These developments may spark political leadership. However, due to overlapping roles and responsibilities [143], MoHA – which has served as the nodal national authority for the management of the whole disaster cycle since 1982 [129,136,150] – has tried to assert its power, particularly in the wake of the formation of NDRRMA [36,131]. The following quote from an interview of another study exemplifies

the power struggle: "MoHA has been somehow purposefully delaying the constitution of the authority as it will reduce their control over disaster governance and related authorities in Nepal" [14, p. 101,911].

In conclusion, Nepal's DRR policy regime has evolved in terms of its leadership. Dust from reshuffling at the top level has not completely settled yet, but the result may prove to be not only a more stringent regime but also a stronger leadership and an empowered state apparatus (which may in turn empower local and provincial authorities – a change that is urgently needed if legal provisions are to be lived up to). The greatest challenges, next to the prevalence of power struggles, are likely to be the stability of governments and the quality of governance [129]. The country suffers from corruption, nepotism, eroded trust, and a lack of accountability [151]. Parliament has been dissolved twice within five months. Important political dynamics may shift in parliament after the elections of 2022. In the absence of effective state leadership, international and non-governmental actors have shaped the national DRR policy regime, and they continue to influence the national landscape.

# 4.2.3. Diffusion processes

Diffusion processes have materialised in a variety of ways in Nepal. Significant drivers that have contributed to the current state of Nepal's DRR policy regime include both non-governmental actors at all levels and the international community - donors and international organisations alike [135,150,152]. With the introduction of the multi-party system in the country after the end of the civil war in 2006 [14], NGOs and international organisations in particular succeeded in penetrating the whole country with development projects, including DRR activities that reached remote and rural areas [153]. As a result of its collaboration on the international level, and in the absence of government capacity and leadership, Nepal has felt pressure to join and to commit to international agreements and frameworks, such as Paris Agreement on Climate Change, the Agenda 2030 and the Sustainable Development Goals, the Hyogo Framework for Action (HFA), and the Sendai Framework for Disaster Risk Reduction [14]. Nepal is recognised, however, as an active participant in both international and regional initiatives on DRR [154]. For Nepal, as for Fiji, international collaboration resulted in the adoption of a cluster approach to response and relief activities under the lead of government ministries and agencies - the same approach taken by the UN [155]. Based on interview studies, some even argue that the "[government of Nepal] would not be engaging in DRR without the pressure and resources of the international community" [135, p. 88]. According to others, such engagement "seems to be conjured by the attraction of donor funding" [114, p. 40]. Over time, this pressure has led to changes and paradigm shifts in the country's DRR policy regime: i.e., to a holistic approach that engages the whole disaster cycle; to the mainstreaming of DRR into development processes; to the integration of DRR with climate change adaptation; to the utilisation of participatory approaches; and to decentralisation and the empowerment of local communities.

In particular, engagement with and participation in the HFA, which advocated for the aforementioned changes, demarcated a shift from government to governance in Nepal [135]. In alignment with the HFA, and in accordance with the spirit of the preceding International Decade for Natural Disaster Reduction, Nepal adopted its *National Strategy for Disaster Risk Management* [156]. Taking the place of the reactive focus on rescue and relief that had prevailed previously, the now employed approach to DRR concerned all phases of the disaster cycle [14,135,156]. A process of policy reform then began, leading a decade later to the repeal of the *Natural Calamity Act* of 1982 and to the passage of the *Disaster Risk Reduction and Management Act, 2074* [148] and the *National Policy for Disaster Risk Reduction of 2018* [149].

Furthermore, as a consequence of campaigning and awareness-raising, the idea of mainstreaming DRR into development processes gained traction among Nepal's policymakers [132], despite a continued lack of awareness at the local level, as the results of a survey analysis show [157]. While the idea of mainstreaming DRR found its way as a key component into policies, plans, and strategies such as the *National Strategy for Disaster Risk Management* [136,156], international organisations and government ministries agree that success in this regard has been limited so far, although progress due to donor engagement has been noted [130,131]. Without pressure from the international community, and without Nepalese participation in the Conferences of Parties in the UNFCCC process, the integration of climate change and DRR seen in the late 2000s may not have taken place [14]. In the hope of appeasing donor agencies and attracting international funding, the Nepalese government expressed a strong interest in climate change adaptation [61]. As a consequence, it adopted a *National Adaptation Program of Action* (NAPA) in 2010, and followed it up with plans for local actions; both are important steps towards integrating climate change into the policy debate and agenda [158].

Institutional arrangements have also been changed. Since the adoption of the HFA, for instance, both the NAPA and local action plans have incorporated multi-stakeholder and participatory approaches [159]. Based on interview studies, critics have charged that these arrangements remain donor-driven and that they lack proper involvement from actors at different levels [137,160]; that they are adapted neither to local needs nor to the context – instead only offering "orchestrated spaces of participation for selected stakeholders" [137, p. 427]; and that they exclude the voices of the poor, the disadvantaged, and the most vulnerable in final decisions [161]. On the other hand, policies of participation in political life and in DRR – as advocated by NGOs and civil society actors as well as international organisations and frameworks – have opened up pathways for greater gender equality since the adoption of the new constitution [131].

In 2015, the new *Constitution of Nepal* entered into force, and the Sendai Framework for Disaster Risk Reduction was adopted by the UN. These documents brought questions of federalisation, decentralisation, localisation, and the empowerment of local levels of authority into focus [14,147]. The role and responsibility of local communities in ensuring disaster resilience had already been emphasised in the *Self Governance Act* of 1999, in keeping with commitments made during the International Decade for Natural Disaster Reduction [130,142]. However, the Constitution and the adaptation plans took the country another step towards achieving Nepalese and Sendai targets and linking them with each other, by designating DRR and its management as the common responsibility of various levels of government [130,131,162]. It has been widely agreed that these approaches improve the adaptive capacity of the disaster governance system [47,53]. Still, despite the progress on paper – with renewed disaster management plans and the introduction of decentralisation as a guiding principle – Nepal has struggled to develop effective instruments of implementation [129,132,

163]. While the recent *National Policy for Disaster Risk Reduction* [149] and *National Disaster Risk Reduction Strategic Plan* (2018–2030) [164] incorporate the Sendai targets to the fullest extent – including, for instance, 'build back better' approaches and multi-stakeholder consultations – a disconnect between policies and planned responses as well as deficiencies in existing assessment practices have been identified [61,131,134].

The developments and changes in Nepal's DRR policy regime have followed global trends backed by international organisations like the UNDRR and advocated in international frameworks such as the HFA. Seeking international funds and hoping to satisfy local needs, the government of Nepal has committed itself to international frameworks. It has incorporated their methods, approaches, and paradigms into national policy documents, institutional arrangements, and political processes. The government has struggled with the implementation side, but the paradigm shifts have materialised when non-governmental actors have driven the changes and international funding has enabled them.

#### 4.2.4. External shocks

In Nepal hazard events have functioned as focusing events, triggering or facilitating change in the DRR policy regime – including paradigm shifts, policy revisions, and institutional alterations – particularly when casualties have worsened or events have increased in frequency [61]. Such events have included not only extraordinary earthquakes, such as those of 1988 and 2015, but also water-induced disasters such as floods and landslides [14]. It was only after the earthquake of 1988 and the floods of 1993 that disaster risk management was given a more prominent place on the political agenda, in keeping with the International Decade of Natural Disaster Reduction [154]. Thus, these hazard events contributed to the adoption of mitigation and preparedness as prominent disaster paradigms in the 1990s [14]; to the revision of DRR-related policies and strategies, including building codes [165]; to the first conferences on disaster management in Nepal; and to the creation of a committee for disaster management [154]. In spite of an ongoing lack of institutional capacity and of human resources for proper implementation of the building codes, some progress has been made due to initiatives such as the School Retrofitting Programme [154].

In addition, after a long absence of proactive policies [136], revisions of policy and of strategy were carried out, especially in the aftermath of the Gorkha earthquake. This event advanced the policy process: the parliamentary gridlock was overcome and revisions were sped up. The Gorkha earthquake was used to push through the contested Constitution including the federalisation and decentralisation of Nepal's DRR policy regime [14,61,85], which is expected to enhance local participation and collaboration [166], as well as the revision of the outdated *National Calamity Act*. According to a preliminary assessment, these policies can be expected to enable effective DRR in Nepal [136]. Several studies, however, argue that the Constitution did not just introduce federalisation. It also secured the dominance of the upper caste, and could only be adopted through a politicisation of the post-disaster context [85,144]. The Constitution can be considered a milestone for Nepal, as can the *Disaster Risk Reduction and Management Act, 2074* [148] and the subsequent *National Policy for Disaster Risk Reduction*[149]. In addition to having replaced the policy of the previous four decades, these innovations stress the importance of the whole disaster cycle, and they provide a well-structured architecture for the DRR policy regime [143,167].

The Gorkha earthquake also triggered more minor changes within the economy and society, to the benefit of some portions of the population. In response to the event, for instance, better-off smallholder farmers were able to adopt agricultural diversification and to invest in cardamom cultivation, making them financially less vulnerable to the impact of future events [168]. However, while some improvements have taken place, studies on the impact of humanitarian assistance in the wake of the Gorkha earthquake have acknowledged that the underlying causes for vulnerability in Nepal – including power asymmetries – have not been alleviated [151].

As a result, hazard events have indeed served as triggers for change in Nepal's DRR policy regime, although these changes have not been felt to the full extent by the whole population [166,169]. Paradigm shifts have been accelerated, but implementation lags behind, despite increased public awareness and improvements in the quality of housing [170]. Some segments of the population have already benefitted, but the most vulnerable – Dalit women, for example – are still at a disadvantage, due to inequality, discrimination, and patriarchal power structures, including the caste system [166,171].

#### 5. Discussion

Changes in the DRR policy regime of the two developing countries have materialised distinctly and quite unexpectedly in the face of various barriers and adverse circumstances, such as violent turmoil and a regular threat of disaster. They have also taken place in a relatively brief period of time. Fiji provides a prime example of how a country's DRR policy regime can gradually improve under continuous national leadership. Nepal, for its part, shows that even rapid changes can be made in a highly exposed and vulnerable country with fragile and unstable institutions. In all their diversity, then, the two cases show some striking similarities.

Where leadership is concerned, continuous and committed efforts have been paramount for achieving sustainable change in the DRR policy regime of the two developing countries. Shortcomings in this regard can disrupt the process severely, as the case of Nepal shows. In Fiji, the government and the prime minister's office have been the driving forces behind change. This support was a precondition for renewal of the policy regime, with a central government office recognised as the focal point and endowed with authority and vast responsibilities. This made concentrated and concerted efforts possible, enabling long-term change and adaptation to commence. By contrast, Nepal lacked such a national powerhouse of leadership; instead, a certain government ministry tried to protect its power. In the absence of national commitment, donors, NGOs, and international organisations filled the vacuum, resulting in a fragmented DRR landscape. However, these actors need the resources, the will, and the authority to step forward; while inadequate coordination can jeopardise their efforts. It remains to be seen whether the latest reshuffling of the DRR policy regime in Nepal will spark leadership and the empowerment of national and sub-national actors; or whether parliament, ministries, and government

agencies will instead succumb once more to power struggles and infighting.

These differences in leadership may be rooted in the types of hybrid regime the two countries represent. According to some classifications of regime types [172], Fiji might be termed an electoral autocracy, where opposition is suppressed and elections are not free and fair, as there is no level playing field for different political parties [173–175]. In contrast, Nepal may sooner qualify as a defective democracy, where the state displays systematic deficiencies and political stalemates block outcomes [110,176]. The regime type and its origin, then, may be of great relevance for how leadership affects changes in a policy regime and should therefore be investigated in future studies.

In both cases, diffusion processes made a considerable contribution to change in the DRR policy regime, particularly through the dissemination of values, knowledge, and best practices via international organisations and frameworks. Embracing global trends and shifting paradigms, Fiji was able to leverage international and supranational cooperation, thereby compensating for its limited internal capacity. Similarly, changes in Nepal's DRR policy regime followed global trends, due to international pressure and the government's hope to attract funding. The approaches adopted due to such strong external influences included decentralisation, a holistic approach to disaster management, the mainstreaming of DRR into other policy fields, and the integration of DRR with climate change adaptation. In both countries, engaging in international cooperation has affected the review and revision of policies and strongly influenced institutional arrangements in the area of DRR. Fiji and Nepal both established cluster systems for managing large-scale disasters, along the same lines as the system set out by the UN. Fiji was also able to build upon existing processes and capacities, such as civil-military partnerships and a social security system used in an innovative way fostered by experimentation and review. In developing countries, external actors such as donors, NGOs, and international organisations shape the landscape, populating the field with ideas and paradigms. These ideas and paradigms can bring about changes in national approaches, policies, and institutional arrangements, thereby revising a country's entire DRR policy regime.

The analysis of the two countries bolsters the claim that hazards and disasters can act as focusing events in developing countries, accelerating change in DRR policy regimes. Whereas theories of focusing events and punctuated equilibrium are heavily biased towards Western countries and liberal democracies, the analysis has shown that disasters can serve as focusing events for change in less democratic countries as well, due to the attention they draw and the sense of urgency they spur. Contrary to the assumption that stresses beyond the coping limit will lead to institutional erosion and decline [49,50], it is the greatest disasters which have befallen countries that have brought about change; while ideas, bills, and government documents were already available and at the ready before such events took place. Scholars have found that, if the window of opportunity opened by large-scale disasters is to be exploited, pre-existing ideas must be available [177]. International organisations may spread these ideas, while international regimes and frameworks can serve as arenas of diffusion [64].

In the case of Nepal, the Gorkha earthquake was crucial for the formation of new alliances – in particular, parliamentary coalitions across partisan lines. This exogenous shock made it possible to adopt the new Constitution and to pass the needed policies regarding DRR. The evidence reviewed here supports the argument that such factors can be operative in developing countries as well. These stories of change support concerns, however, that the politicisation of hazard events can be used for good or for ill [86,87]. In Nepal, for example, unilateral decisions have been pushed through at the cost of large parts of the population, under the pretence of the common good [85].

#### 6. Conclusions

This study set out to illuminate how changes in national DRR policy regimes materialise in developing countries despite barriers and adverse circumstances. As a plausibility probe, it contributed to the understanding of change-inducing processes, which is urgently needed [80]. Providing one brick in the wall for filling this empirical gap, the study explored the changes over time in the instances of Fiji and Nepal. In so doing, it investigated the roles of leadership, diffusion mechanisms, and focusing events and identified pathways for change.

This is of particular importance for development studies because of the challenges developing countries have to face. In light of the adverse circumstances, these countries are often expected to struggle with adaptation due to the adaptation deficit [8–10,12]. Investigating mechanisms that facilitate change, this study not only presented empirical evidence that change in such policy regimes is possible even in the face of frequent natural hazards, a lack of resources, and an abundance of institutional challenges, but also provided insights into how these challenges can be overcome. The findings contribute to the theoretical discussions about that, how, and when leadership and diffusion mechanisms enable such processes despite substantial barriers to change. Accordingly, studies of positive change, progress, and success such as this one can contribute to learning for adaptation and sustainable development by uncovering ways to overcome barriers to change.

However, there is much still to learn. A starting point for future research could be the important similarities and considerable differences that the two cases exhibited. In particular, the significant role that leadership played in Fiji could be of interest for future studies, potentially investigating which kind of leadership is of relevance to enable change in DRR. Differences in leadership may be rooted in the different regime types in the two countries. While the governments of both countries are categorised as hybrid regimes, their origins, history, and characteristics (electoral autocracy vs defective democracy) may account for some of the differences. Thus, greater attention to regime types may be necessary in future studies if we are to find ways to overcome barriers to change in DRR policy regimes. More autocratic states may be able to utilise their top-down design as a leadership resource as environmental authoritarianism suggests [178]; by contrast, defective democracies may be more in need of reaching consensus. In studying such factors, political science is able to support further DRR research and sustainable development.

Both cases, though, support the theory that large-scale disasters serve as focusing events, disrupting or puncturing the equilibrium,

and opening windows of opportunity that can be exploited if pre-existing ideas are at hand. Disasters can thus accelerate or unlock processes of change in DRR policy regimes. It is of note that only the most extreme experiences served as triggers for change.

Further comparative research will be necessary to corroborate the findings of this early study. A wider range of developing countries – in terms of political, socio-economic, historical, and geographic characteristics – will need to be examined. Future studies may comprise a larger variation on the dependent variable including negative cases in their research designs to test theoretical assumptions.

Since disaster governance is a collaborative effort, and modes of governance and the choice of partners are evidently of importance for outcomes [179], future research may want to include theories of network governance and collaborative governance [180–182], which may be integrated with the Advocacy Coalition Framework [183,184]. Recent studies have pointed out how coalitions in disaster policy subsystems can vary, but such an approach has yet to be applied to developing countries [185]. Given the highly unequal distribution of wealth, exposure, vulnerability, disaster risk, and disaster impacts across the world, processes of change and renewal in developing countries should be given stronger emphasis in future research.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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