Transparency International Anti-Corruption Helpdesk Answer

Ensuring integrity in the response to extreme weather and climate events

The climate crisis has resulted in an increase in frequency and severity of extreme weather and climate events. In response to this, the international community and national governments have allocated funds for adaptation and response projects to enhance societal resilience and mitigate the impact of these events. However, emergency funding - particularly in the immediate aftermath of a crisis - can create opportunities for corrupt public officials to misappropriate funds, manipulate project direction, or demand bribes from communities. Longer term adaptation and reconstruction projects are also at risk of political interference and manipulation. To safeguard such projects, decision-makers should implement anti-corruption and integrity measures throughout these responses, and even before a disaster takes place.

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Query

What are the best practices and recommendations for governments and oversight agencies regarding transparency, integrity and anti-corruption in response to extreme climate events? Please include examples of actions from other countries, encompassing prevention, adaptation, immediate response and reconstruction processes.

Contents

Main points

- Projects aimed at adaptation, response and reconstruction after extreme weather and climate events are vulnerable to corruption due to the large amounts of funding given and the emergency powers adopted by governments. Corrupt public officials may see the post-disaster period as an opportunity to embezzle funds or demand bribes from affected communities who need access to humanitarian aid or alternative housing

- It is important that lines of accountability are established between government agencies and, even once emergency powers are triggered after a disaster – such as bypassing standard public procurement procedures – that these have integrity and that anti-corruption measures are built in from the outset. Follow-up audits and assessments of all interventions are also necessary

- While adaptation, response and reconstruction interventions are primarily led by state actors, research also highlights the importance of including local communities in these projects. This is important to gain local knowledge of the areas (and help improve the design of the projects) and to make use of community monitoring, which acts as a powerful anti-corruption measure in itself.

Background

More than half of the world's population was exposed to extreme weather and climate events[1] such as hurricanes, tornadoes, floods, heatwaves, cyclones, blizzards and droughts in 2019 (Doan et al. 2023). These impact some of the most vulnerable communities globally, as around 2.3 billion of people affected are living in poverty and almost 400 million living in extreme poverty (Doan et al. 2023).

Extreme weather and climate events have become more severe and commonplace since the mid-twentieth century, in part due to the increase in human-induced greenhouse gas emissions which has affected weather patterns, increased sea levels and melted snow and ice (Seneviratne et al. 2021). Without a proper response from governments to these extremes there is the risk that the world will see further human loss and a deepening of poverty and inequality (Copernicus 2023).

In light of the increasing prevalence of extreme weather and climate events, there is an urgent need to increase disaster preparedness and build greater societal resilience (Poynting and Stallard 2024). There are three types of policy measures to reduce the impact of extreme weather and climate events: adaptation,[2] response and reconstruction. These measures range widely and can include the planning of cities and towns to reduce the effects of future flooding (adaptation), to providing immediate shelter to those displaced by a typhoon (response) or to rebuilding infrastructure that has been destroyed by a landslide (reconstruction).

Despite the pressing need to address current and future weather and climate extremes, significant hurdles remain. Regarding adaptation, the United Nations (UN) Environmental Project (2022: XIV) estimates that the global annual adaptation costs for developing countries will be between US$160 billion to US$340 billion by 2030. Based on this, the adaptation funding needs are between five and ten times higher than the current international adaptation finance flows (UNEP 2022: XIV). There are also significant gaps in domestic budgets allocated to disaster risk management (Crossley et al. 2021: 7). As of 2023, only 50% of countries have operational early warning systems to withstand extreme weather and climate events and even fewer have legislation in place to ensure establish national level

[1] An extreme weather event is 'an event that is rare at a particular place and time of the year' and an extreme climate event is a 'pattern of extreme weather that persists for some time' (Seneviratne et al. 2021: 1522). The primary difference between the two is the timeframe to which the event lasts. This Helpdesk Answer restricts itself to considering the impact of anti-corruption on discrete weather events and natural disasters, rather than climate change more broadly. For information on corruption in climate change policies see Grand corruption and climate change policies (2022).
[2] Adaptation, or climate adaptation, refers to adjustments in ecological, social or economic systems in response to actual or effected climatic events or changes and their effects (UNFCCC n.d.).

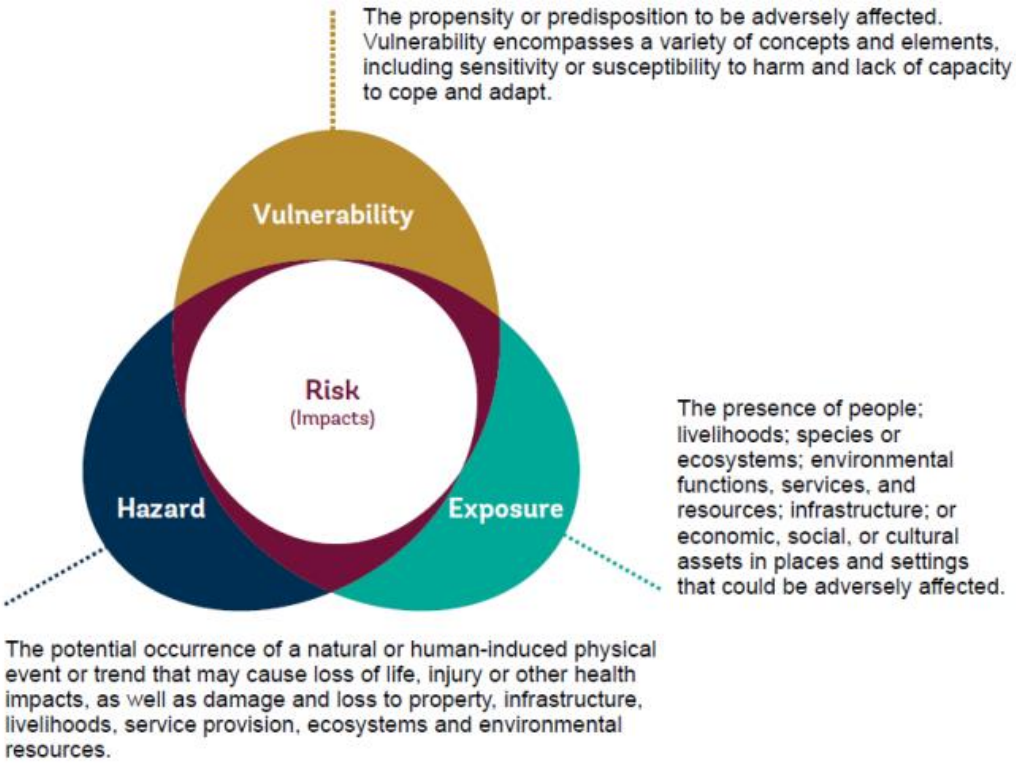
responses to climate change and emergency preparedness (UNDRR 2023). Assessments of various impact reduction measures indicate that globally, especially in lower-income countries, there is a lack of preparedness for the extreme events that will result from the climate crisis. Corruption further intensifies these issues as it affects countries' financial and policy preparedness for extreme climate events.

Corruption and resilience to extreme weather and climate events

In resilient and well-prepared societies, the risks associated with extreme weather and climate events, such as economic damage and loss of life, can be mitigated. However, according to the Intergovernmental Panel on Climate Change (IPCC), there are several constraints to achieving societal resilience. These are largely determined by the following, as illustrated in Figure 1:

- hazards
- exposure
- vulnerability

Figure 1: The impact of extreme weather events (IPCC cited in Doan et al. 2023: 6).



The hazard component refers to the potential occurrence and extremity of the weather and climate events and exposure to the presence of people and livelihoods in the affected area. The vulnerability component is the extent and degree of political, economic and psychological resources available to the disaster affected society to cope with and recover from losses (Doan et al. 2023: 14). As such, vulnerability is the factor that can be most influenced through government intervention and policy by reducing exposure and increasing society's adaptability.

Corruption, on the other hand, significantly increases vulnerability as it diverts funds meant for building societal resilience into the pockets of corrupt actors and distorts public policy towards special interests. The impact of corruption in emergency situations is dynamic and complex. It not only decreases the resilience of institutions and their preparedness for tackling emergencies but can also contribute further to emergencies through siphoning off critical resources needed for reducing risk impact (Fazekas 2023: 3).

In times of emergency, corruption is occasionally seen as 'the cost of doing business', particularly where there is a perceived trade-off between exigency and due diligence (Steingrüber et al. 2020). Anti-corruption is often not even a consideration in the early response coordination meetings following a crisis (Schultz and Søreide 2006). However, studies have shown that higher levels of corruption increase the number of natural disaster related deaths in lower-income countries through the resulting low-quality infrastructure[3] and the weakness of health and risk management systems (Cevik and Jalles 2023). It is therefore important that anti-corruption and integrity measures are considered throughout the adaptation, response and reconstruction phases. These measures can be built into every intervention – from immediate response to longer term reconstruction - through careful prior planning and monitoring, assessments and continuous improvements.

Different actors are involved in adaptation, response and reconstruction efforts. These include the governments of affected countries, donor organisations and aid-implementing agencies, contractors and suppliers, as well as individuals and beneficiaries in the affected areas (Fenner and Mahlstein 2019: 244-256). Government agencies[4] play an important role in reducing the negative impact of corruption on responses to climate emergencies by implementing strict transparency and accountability measures. They can also foster important

[3] Infrastructure can include water supplies, sanitation, drainage, access roads and paving, street lighting, waste management and community buildings.
[4] These would typically include national disaster management authorities, ministries of health, defence, water resources or infrastructure as well as local governments and municipalities.

community engagement and collaborate with civil society organisations to ensure that responses effectively address the needs of those most affected by extreme weather and climate events. This Helpdesk Answer focuses on the governments of affected countries and their role in ensuring that integrity and anti-corruption measures are implemented.

Corruption risks

Political corruption

In the immediate response to extreme weather and climate events government authorities often adopt emergency powers. These help the state and local governments to act quickly to protect their citizens through bypassing the usual legislative processes and regulatory protocols so that faster action can be taken during a crisis (Pirius n.d.).

However, emergency powers grant the executive and regulatory authorities extensive discretionary powers and potentially opens regulatory gaps for fraud and corruption (Williams et al. 2022: 4). Emergency powers may suspend safeguards and ethical requirements such as freedom of information requests, which make it more difficult for citizens to hold authorities to account (Williams et al. 2022: 4). As such, emergency powers can increase the risks of state capture and suppress dissent and citizen oversight (Williams et al. 2022: 4).

Emergency funds that are allocated by emergency powers typically do not comply with regular disbursement or expenditure frameworks, meaning that there is the risk that officials will use the funds however they see fit with limited consultation or oversight (Williams et al. 2022: 4). Emergency spending rules or relaxed anti-corruption controls may also remain for some time after the initial disaster has passed (Fazekas 2023) and linger into the reconstruction phase. This increase in discretionary power also heightens the risk of nepotism and favouritism in the aid response, embezzlement of funds, and later the obstruction of justice and investigation.

The large amount of funding that is allocated to climate adaptation is at risk of being siphoned off through kickbacks or embezzlement, and private companies and political actors may collude for their own gain. For example, in South Korea, a US$20 billion project aimed at securing water resources and improving flood control was investigated for collusion between the state and business, where kickbacks were paid to government officials (Koo 2017; Min-sik 2014). Local

communities were not consulted, and the environmental impact of the project caused a subsequent decline in water quality (Min-sik 2014).

Undue influence by political figures can also hamper attempts to design and implement effective policies to facilitate climate adaptation (Rafitoson and Valérian 2023). For example, political interference delayed and hindered Venice's high-profile climate adaptation project, the Mose project, which involved building a flood barrier against rising sea levels (Vitucci 2022). Delays, thefts, bribery and overinflated costs led the project to be significantly delayed, with costs for the public rising far above what was initially planned (Vitucci 2022),

In Puerto Rico, reported corruption and government mismanagement were the reasons why reconstruction following Hurricane Maria were so slow (Thompson et al. 2023: 24). Clientelism and corruption, such as electorally motivated disaster resources allocation, slowed recovery efforts and harmed local communities (Thompson et al. 2023: 24). There was little accountability with government agencies, including the Puerto Rico department of housing, which only offered one citizens' meeting per year and little transparency on how decisions are made (Masses 2022). Despite billions being dedicated to housing, only 2% of the housing needs have since been met (Masses 2022). Private contractors, on the other hand, received multi-million dollar contracts (Masses 2022).

The detection of corruption offences can also become more difficult during times of a disaster (OECD 2021). Emergency situations can result in a reallocation of resources, meaning that public resources could be spent on emergency responses rather than the investigation and prosecution of corruption cases (OECD 2021: 1). Internal investigations can take longer to come to light during a crisis and detection through whistleblowers and investigative journalism may also be under threat (OECD 2021: 1). The capacity of government agencies such as financial intelligence units (FIUs) and other investigative capacities may also be undermined, particularly in the search and interview of witnesses and suspects (OECD 2021: 1). Furthermore, trials could be postponed and international cooperation - such as mutual legal assistance and extradition - could be delayed (OECD 2021: 1).

Public procurement

Closely linked to political corruption is the propensity for corruption in public procurement during the adaptation, response and reconstruction phases. Extreme weather and climate events generally trigger public policy responses that mobilise large amounts of funding in the short-term response, as well as longer term adaptation and reconstruction. Emergency funds are allocated by emergency

powers tend to not comply with regular frameworks. Fazekas (2023) categorises these initial crisis responses in public procurement into the following:

- spending changes (in procurement spending volume, speed and composition, loans, subsidies)
- organisational changes (new powers given to a public body)
- modified rules and regulations (such as emergency clauses in public procurement)
- changes to laws and law-making (bypassing parliament)

Corruption in public procurement in emergency situations often takes the form of bribing procurement officers to win a contract (Schultz and Søreide 2006: 8). This results in reduced quality of goods and services, inflated prices, and biased allocation of resources (Schultz and Søreide 2006: 8). Another complication is that requirements regarding financial records are often relaxed post-disaster, so it can even be difficult in an evaluation to distinguish between poor outcomes that are caused by corruption and those that are from rushed decision processes (Schultz and Søreide 2006: 7).

Infrastructure is particularly vulnerable to corruption in the procurement process. Good quality infrastructure is important in this context as it ensures that relief and response work is successful; delivering aid to affected communities relies on intact roads, bridges, ports and airports. Poor quality building materials and techniques can result in residential buildings collapsing during an extreme weather and climate event (Rasper 2016).

Corruption is a risk in infrastructure when there are attempts to bypass procurement, contracting and other procedures by interest groups to maximise their own profits (Fenner and Mahlstein 2019). This can result in inappropriate or substandard infrastructure and worsens the economic, social and environmental impacts of natural disasters (Fenner and Mahlstein 2019; Loosemore et al. 2021). Evidence shows, for example, that corruption exacerbates the impacts of natural disasters such as earthquakes[5] through undermining building regulations, which causes a significant number of deaths as a result (Jenkins et al. 2020: 5).

As an illustrative example, following the Indian Ocean tsunami in 2004[6] around US$13.5 billion was pledged or donated by the international community for

[5] While earthquakes are not strictly extreme weather and climate events, this study illustrates the impact that poorly built infrastructure has on the vulnerability of a society.
[6] A tsunami is not considered an extreme weather or climate event. However, the climate crisis has led to rising sea levels and one of the impacts of this is that coastal populations are more vulnerable to

emergency relief and reconstruction in the region (Schultz and Søreide 2008). In Colombo, Sri Lanka, a housing project commenced in 2005 to build 100 houses for victims who had lost their homes (Schultz and Søreide 2006). A year later, only three of the houses were occupied, and only one by a tsunami victim. Only 70 houses had been built and were already falling apart. The housing was constructed using low quality material and the funders of the project and contractors accused each other of embezzlement (Schultz and Søreide 2006).

Petty corruption

Extreme weather and climate events result in a huge influx of money, goods or services to a country, which can increase the likelihood of diversion and corruption (Fenner and Mahlstein 2019). In the immediate relief phase, items such as food and medicine can be diverted away from communities or distributed unequally (Fenner and Mahlstein 2019). Bribery may become necessary to gain access to these and this can in turn lead affected communities to engaging in illicit activities to be able to access basic supplies (Fenner and Mahlstein 2019). There is a power asymmetry between public officials providing aid and services to local communities, which can also increase the chances of demands for bribes or sexual acts in exchange for access to much-needed assistance. While petty corruption tends to be cited as more of a risk during the initial response phase in the literature, it can also be a problem during longer term adaptation and reconstruction efforts when services that are rebuilt have developed ingrained norms of bribery at the point of access.

Overarching integrity and anti-corruption measures

A robust anti-corruption legal and institutional framework

Policy responses are key in shaping the eventual impact on and of corruption at a time of crisis (Fazekas 2023). However, in a time of crisis accountability and oversight mechanisms - such as local institutions and government - may be weakened and civil society diminished.

One of the first steps to ensuring that funds are allocated to those in need is to ensure that the national anti-corruption legal and institutional framework is operational, effective and has adaptations that allow it to continue to be effective in times of disaster. The United Nations's non-binding guidelines for investigating and

tsunamis and other sea-level events such as floods, landslides, and other water-related hazards (Sawai 2023).

prosecuting corruption during times of crisis (UN 2023: 6) emphasises that anti-corruption and integrity measures should be integrated before a crisis occurs and should be prioritised as an integral part of all aspects of the emergency response. This includes ensuring legislation and policies are in line with the international standards such as the United Nations Convention against Corruption (UNCAC) and the OECD Anti-Bribery Convention. Other anti-corruption frameworks that should be implemented (and updated) include systems for procurement, policies on financial disclosure, codes of conduct and conflict of interest (UN 2023).

Anti-corruption authorities should also be involved in the design and implementation of all response and recovery efforts so that strong internal and external audit systems are included in all emergency responses (UN 2023: 6). Anti-corruption tools, mechanisms and interventions should be consistently reviewed during times of emergency to ensure that they are effective and relevant (UN 2023: 6).

In terms of anti-corruption enforcement, mechanisms should be strengthened proactively to ensure that international cooperation and collaboration across borders is possible (UN 2023: 13). This includes legal and institutional frameworks for information exchange between competent national authorities and strengthening international networks such as the Global Operational Network of Anti-Corruption Law Enforcement Authorities (UN 2023: 13). Such mechanisms help to ensure that cases of transnational corruption would still be adequately detected and prosecuted even in times of crisis.

The OECD's (2021) background note on anti-corruption and emergency situations emphasises the importance of continuing the enforcement capacity of countries despite an ongoing crisis. The use of new technologies is advised to be prioritised for law enforcement agencies (particularly regarding those tracking economic crimes) (OECD 2021: 3). This includes having law enforcement agencies that are adequately equipped and trained in digital investigations to ensure that these new technologies, such as an increased digital filing and evidence system for prosecutors and virtual trial proceedings to ensure continuity in criminal proceedings (OECD 2021: 3).

The OECD (2021: 4) also notes that financial resources should be adequately maintained for the enforcement and prosecution of corruption cases despite any ongoing crises. Development agencies and other sources of funding can ring-fence their institutional support to state anti-corruption bodies to ensure that financial support continues, despite pressure to redeploy these resources to short-term crisis management measures (Jenkins et al. 2020: 25). Finally, as crises tend to cause delays in investigations and prosecutions, the limitation periods should be

extended along with legislative measures that apply to statutes of limitations and limitation periods for investigation (OECD 2021: 4).

Open civic space

In addition to having an effective and robust anti-corruption framework, ensuring freedom of expression and freedom of assembly is considered important in the literature. In times of disaster, civic space allows for community voices to be heard in the policymaking process and ensures that local knowledge is built into response or adaptation measures. This is important as centralised planning built around national level targets often fails to account for the nuanced aspects of societal reform that come to light through public participation (Herbertson 2023).

Civic space helps to empower citizens to hold their governments to account during all three phases (adaptation, response and reconstruction) through monitoring progress to their commitments. This monitoring extends to the oversight of resources that are allocated for climate adaptation and disaster response.

Box 1: International treaties and agreements which require states to involve civil society in environmental matters

Principle 10 of the Rio Declaration on Environment and Development (1992) states that environmental issues are handled best with the participation of all concerned citizens and that each individual should have appropriate access to information held by public authorities concerning the environment. It also requires states to facilitate and encourage public awareness and participation by making information more widely available as well as enabling access to judicial and administrative hearings (UN 1992).

The Aarhus Convention (1998) is an international treaty that requires public authorities to make environmental information accessible to the public and provide space for public participation in environmental decision-making processes. This includes each state providing the appropriate recognition of and support to associations, organisations or groups promoting environmental awareness among the public and support them in participating in decision-making (UNECE 1998).

The Escazú Agreement (1998) requites the rights of access to environmental information, public information and public participation in the environmental decision-making process and access to justice in environmental issues in Latin America and the Caribbean (UN 2018).

More broadly, in longer term adaptation and reconstruction projects the inclusion of civil society reduces the risk of a poor response and establishes sound climate governance. Climate change adaptation requires multiple actors from the public and private sectors as well as civil society to increase policy effectiveness (Baker et al. 2021). In the coastal region of Quintana Roo, Mexico civil society organisations (CSOs) provided inputs to help address climate vulnerabilities in the local area where the increase in sea surface temperatures has led to more frequent and intense hurricanes (Baker et al. 2021). Local CSOs promoted the restoration and conservation of natural coastal systems to protect against the impacts from climate change and others were involved in designing and construction of policies in REDD+ projects (Baker et al. 2021).

Their data collection activities were also used to support policymaking, and the CSOs engaged in monitoring and data collection and then shared the results directly with public authorities (Baker et al. 2021). Some of the CSOs stated that the state institutions responsible for handling climate adaptation issues were overstretched and under-funded, which is where CSOs stepped in to provide capacity and knowledge support. As this example illustrates, CSOs can have a key role in climate governance and ensuring that climate adaptation interventions are inclusive and well-informed.

Integrity and anti-corruption measures at the decision-making level

The decision-making level of adaptation, response and reconstruction projects involves multiple bodies, at the international, national, regional and local levels. These bodies can range from United Nations agencies (such as the United Nations Office for the Coordination of Humanitarian Affairs) to the national government of the affected country and local governments. Each one has varying degrees of responsibility for how issues caused by extreme weather and climate events will be resolved. Decision-making bodies play a key role in deciding how these projects are financed and who will be held accountable for them. The following sections explore how to integrate integrity and anti-corruption measures into the critical decisions made in adaptation, response and reconstruction efforts.

Financial protection tools

Financial protection is defined by the OECD as ‘the use of strategies and tools to manage the financial impact of extreme events, ensuring adequate capacity to manage and reduce the costs of climate risk, therefore reducing the financial

burden and economic costs of climate risks' (OECD 2017: 9). Financial protection is considered important for developing countries as extreme weather and climate events have a much more disruptive impact on the economy than in more advanced economies, largely due to weaker infrastructure (Ghesquiere and Mahul 2010: 3).

An example of a financial protection tool is country-based pooled funds. These are established once an emergency occurs, and they collect financial contributions from multiple donors into a single, unearmarked fund that is typically managed by UN bodies and intended to support the priorities set out in humanitarian response plans, which are jointly developed by the UN and national governments (UNOCHA n.d.).

Another type is a sovereign risk pool, which is a mechanism to compensate for the losses caused by infrequent but severe disasters (Hewitt Jones 2018). These can be based on a parametric system, a type of insurance that pays out when modelled losses reach predetermined triggers (MCII 2020) and are taken out before a crisis hits to release money quickly once one does (Hewitt Jones 2018). They can also be indemnity-based insurance schemes, which provide protection against the loss of a specific asset, making payouts based on post-disaster damage and loss assessments (Hewitt Jones 2018: 4).

Two examples of sovereign risk pools are the Africa Risk Capacity (ARC) and the Caribbean Catastrophe Risk Insurance Facility (CCRIF). The ARC is a risk pooling and transfer facility that helps African governments improve their capacity to plan, prepare, and respond to extreme weather and climate events and natural disasters. The CCRIF is a multi-country risk pool that acts as an insurance instrument to limit the financial impact of natural hazard events to Caribbean and Central American governments.

Despite the significance of financial protection tools in mitigating the financial impact of extreme weather and climate events, these mechanisms carry several corruption risks. The transfer of a significant payout from a company or non-profit organisation after a claim can introduce the opportunity for the corruption of officials at the policymaking level (Hewitt Jones 2018: 10). The nature of parametric insurance contracts, the size of policies offered and the speed at which they pay out also makes corruption a risk (Hewitt Jones 2028: 10).

Moreover, the lack of transparency around the workings of risk pool contracts sold to states could also heighten the danger that officials resort to bribery when distributing payouts after a disaster (Hewitt Jones 2018). For example, in a 2016 evaluation of humanitarian assistance by Sida, several cases of corruption were

identified in the Somalia and Democratic Republic of Congo country-based pooled funds, which resulted in the external validations of their risk management systems (Sida 2016: 49).

Transparency in sovereign risk pools helps mitigate these risks with the public having easy access to information about which hazards are insured against (Hewitt Jones 2018). As a relevant resource, the World Bank has recommendations for policymakers to ensure the successful use of risk pools, which include (among others) political coordination between participating governments, using an evidence-based decision-making process and engaging a wide range of stakeholders, including civil society (World Bank n.d.). Sovereign risk pools are, however, relatively new and there is currently a limited evidence base on what are the exact risks and potential mitigating measures (MCII 2020). Further studies are needed on how to ensure they are reaching their intended beneficiaries and improving the transparency of the models used to trigger funding (MCII 2020).

An example of a recently established fund to respond to extreme climate events was set up at COP27, where an agreement was reached by 198 countries to establish a fund to provide financial support to vulnerable countries hit hardest by climate change (World Bank 2024). The Loss and Damage Fund aims to provide the least developed countries and small island developing states with funding[7] (Schalatek and Richards 2024). This will operate as the financial mechanism of both the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement (Schalatek and Richards 2024).

The Loss and Damage Fund Board has so far received generally positive feedback on its governance structure. The fund board will be independent of the World Bank (it is hosted by the World Bank but is not part of the institution) with its own governance structure and will determine its own key priorities such as risk management policies (World Bank 2024). To ensure that there is adequate citizen oversight and participation, Indigenous Peoples and environmental non-governmental organisations (NGOs) will have the opportunity to formally engage in the decision-making process (Schalatek and Richards 2024). This will be achieved through a selection of representatives from youth, women and gender groups, Indigenous Peoples and environmental groups who will be selected and seated in the boardroom where key operational decisions are made (Schalatek and Richards 2024).

[7] As of March 2024, US $661 million has been pledged.

The establishment of a recovery agency

It is recommended by the World Bank (2020) that there should be a lead recovery agency established to respond to natural disasters with a capacity assessment conducted to ensure that the proposed agency can respond and complete its activities (World Bank 2020). The structure of a recovery agency is context-specific, and it plays a key role in ensuring that integrity measures are instilled throughout the disaster response.

In the case of Indonesia after the 2004-2005 tsunami a new single agency - the Rehabilitation and Reconstruction Agency (BRR) - was established (BRR and World Bank 2005). A consolidated recovery agency helped to prevent duplication of efforts during the reconstruction and coordinated the scattered programmes of immediate recovery, many of which had poor coordination and varying levels of quality control (BRR and World Bank 2005). Importantly, the BRR also set up an anti-corruption unit which worked closely with the government's anti-corruption agency to detect corruption in the reconstruction projects (BRR and World Bank 2005).

In other countries a pre-existing government agency may be better placed to conduct reconstruction as this would have the advantage of relying on pre-existing local knowledge and networks. An advantage of this, according to the World Bank, (2020: 47), is that an already established recovery agency would also have prior knowledge and experience on how to manage public procurement contracts and the financial management process. This would also require the establishment of transparency, accountability and monitoring and evaluation frameworks for the agency prior to the disaster to mitigate corruption risks (World Bank 2020: 47).

As an example of an established recovery agency, the Kenyan National Drought Management Authority (NDMA) was set up in 2011 and later transformed into a statutory body under the NDMA Act 2016 (World Bank 2020). Before this, droughts had been managed through time-bound projects but given the continuous threat of drought, this permanent institution helped to build the country's resilience to extreme climate events. An independent evaluation found that the drought mitigation activities had improved the quality of response since the establishment of the agency (World Bank 2020).

Transparency in procurement and beneficial ownership transparency

One critical focus area to prevent corruption from hindering or exacerbating adaptation, response, and reconstruction efforts is by strengthening public procurement processes. The UN (2023) considers it important that governments

ensure that these processes and public financial management systems are characterised by the principles of transparency, competition and objective decision-making, despite any ongoing crises or emergencies.

The first step is to ensure that procuring authorities and those bidding for tenders commit to anti-corruption measures beforehand and that anti-corruption training courses are offered across all relevant departments (World Economic Forum 2016: 47). Public contracts should also contain an explicit anti-corruption clause that stipulates effective sanctions for breaches and provides for ethics training for staff. The UN (2023: 10-11) further recommends that governments:

- put into place internal and external audit systems that monitor the allocation and distribution of emergency relief
- enable access to information at all stages of the procurement process, even in the use of emergency funds
- facilitate public scrutiny and monitoring of public procurement processes
- require disclosures of potential conflicts of interest by public officials
- develop price and cost benchmarks
- ensure coordination among government entities responsible for procurement and the investigation of fraud and related crimes, including supreme audit institutions

Williams et al. (2022: 6) note that governments should develop a crisis preparedness and crisis purchasing framework for emergency responses to help address the corruption risks associated with the increased budgetary inflows. These are useful to have defined prior to any emergency and help to ensure that disaster responses do not increase risks beyond what policymakers have defined as ‘acceptable’ (Lal 2021).

Williams et al. (2022: 8) also argue that reliance on supplier lists or framework agreements poses less of a corruption risk than direct awards during a crisis as they have already been through a due diligence. Framework agreements can encompass basic goods and services that will be needed in an emergency, such as medical supplies and emergency shelter (Lal 2021). The maintenance of domestic production capacity and stockpiling for emergency public contracting can also help to alleviate corruption risks, particularly if these suppliers are verified prior to any emergency (Williams et al. 2022: 7).

In the aftermath of Hurricane Maria in Puerto Rico, the US Federal Emergency Management Agency (FEMA) assessed that it did not sufficiently use advance contracts enough during the response period (Office of Inspector General 2020). Its

audit found that 49 of the 241 new contracts were covered by existing contracts (Office of Inspector General 2020). This raised concerns during the evaluation of the response and the follow-up recommendation was to implement a stronger strategy to ensure advance contracts (pre-approved suppliers) are used more in the future (Office of the Inspector General 2020: 8). Other recommendations from the assessment included ensuring that the decision-making process on awarding contracts is clearly documented and that performance goals and measures to quantify progress are used (Office of the Inspector General 2020: 8).

Using or expanding e-procurement platforms to record transactional information is also considered important by the OECD (2021: 6) to prepare or respond to a crisis. Auditors and oversight bodies should have remote access to all e-procurement records to ensure that audits can continue despite restrictions on physical inspections (due to an extreme weather and climate event) and a central price and supplier tracking should be implemented (OECD 2021: 6). Data analytics can also amplify the anti-corruption potential of e-procurement systems, as data analytics can help to assess the waste or danger that can arise from excess or under-purchasing as well as raise corruption 'red flags' when they arrive (Williams et al. 2022) [8].

Box 2: the EU Directive 2014/24/EU

The EU Directive on public procurement stipulates procedures for procurement under emergency situations and provides exemptions to open-competition rules in cases of extreme urgency (Fazekas 2023). Article 32 (EU 2014: 113) sets out the emergency circumstances when contracting authorities may award public contracts by a negotiated procedure which includes 'for reasons of extreme urgency brought about by events unforeseeable by the contracting agency' and 'not in any event be attributable to the contracting agency'.

Fazekas (2023) considers two important aspects of Article 32. Firstly, that the definition of 'extreme urgency' is flexible and there is no framework for what could constitute an extreme urgency. This gives local authorities discretion in deciding what is an emergency and could potentially create corruption risks if applied incorrectly. A strength of Article 32 noted by Fazekas (2023) is that authorities must prove that the circumstances were unpredictable and outside their control in order to bypass standard operating procedures. This reduces the possibility to misuse or prolong emergencies (Fazekas 2023).

[8] For further reading on the topic see the U4 Issue on Corruption in emergency procurement (2006).

Beneficial ownership transparency should also be considered prior to disaster response and reconstruction as during times of a crisis there is the heightened risk of corruption, embezzlement of recovery funds and money laundering (Markle 2022). Beneficial ownership transparency should therefore be stipulated in national legislation and the ownership data be stored in a central register, allowing for ease of access during a crisis. An up-to-date and easily accessed beneficial ownership register can support any investigations into corruption during or after a crisis and prevent fraudulent claims.

Secure land rights

The damage caused to land and infrastructure by these events and the loss of land, erosion of soil and land degradation often leads to the displacement of communities and the loss of their livelihoods (Oxfam International 2023: 3). This later leads to greater competition over land as a finite resource. In the absence of recognised evidence of the right to land, farmers and communities are at even greater risk of losing their homes and livelihoods after a natural disaster (Oxfam International 2023).

Where land ownership is clearly documented it enables affected individuals to access state support. After the Cyclone Seroja in Timor-Leste in 2021, the government led a humanitarian response that provided temporary accommodation and assistance for repairing damaged property (Oxfam International 2023: 13). Decree Law No. 7/2021 was introduced which allowed the government to aid victims of serious accidents or disasters, enabling landowners to leave the affected area and rebuild their lives with government assistance (Oxfam International 2023: 13). Each household that returned to their home village received $1,000 for the labour costs included in repairing or rebuilding their homes. However, for the people without formal land ownership there were few options. When they returned to rebuild houses it was in unsafe areas and faced the threat of eviction (Oxfam International 2023: 13). The case of Timor-Leste highlights the importance of formal land ownership as this enables citizens to access state support after extreme weather and climate events.

According to UN-Habitat (2010: 18) legal uncertainty on land ownership can facilitate land-grabbing[9] by powerful groups, particularly after communities are displaced and temporarily leave their homes post-disaster. As an example of an attempted land grab, Hurricane Irma in Barbuda destroyed around 95% of the

[9] Land grabbing refers to the acquisition of land (often in developing countries) by either public or private investors. These acquisitions typically have low transparency and a negative impact on local communities' homes and livelihoods.

structures on the island in 2017, which led to widespread displacement of communities (Lightman 2020). After this, political figures sought to privatise the land and developers attempted to push through large tourism projects which would dispossess people of their communal land (Lightman 2020). Lightman (2020) recommends that to counter potential land grabs such as in the case of Barbuda, land institutions should be built and legal frameworks and land registries established, with particular attention to vulnerable groups (Lightman 2020).

Disasters can also result in the destruction of land tenure records like land titles, cadastre maps, land registry records, identify cards and insurance claims, putting communities at greater risk of land grabs (Garibay et al. 2010). Garibay et al. (2010: 19) therefore recommend that records be kept in a building with natural disaster risks kept into consideration (such as a higher floor in a flood-prone area) and that the information flux between different cadastre levels (provincial and national) be improved.

The 'build back better' approach

The 'build back better' (BBB) approach first emerged as a slogan after the Indian Ocean tsunami recovery in 2004. Today, it is more widely used to describe the recovery, rehabilitation and reconstruction phases that not only restore physical infrastructure and societal systems but also improve and revitalise a community's social, environmental and economic conditions (Shuvo et al. 2022). To ensure that the BBB approach is successful, integrity and anti-corruption measures can also be considered as an essential component.

Community recovery is considered to be the central component of the BBB approach (Francis et al. 2018). This includes the psychosocial recovery of the population through educating and empowering communities to cope with the disaster impact, with solutions to establish normality (Francis et al. 2018). Understanding the local post-disaster conditions and local priorities can be determined through conducting a primary needs assessment and ensuring that the community is consulted throughout recovery efforts (Francis et al. 2018). This all requires good management of stakeholder relationships with established roles and responsibilities, typically established by the recovery authority (Francis et al. 2018). This is also the point in recovery where governance and oversight structures should be put into place (Francis et al. 2018).

Times of recovery can be seen as a window of opportunity to address imbalances of inequality (UNDP Mexico et al. 2024: 30). Support for economic recovery through a BBB approach can then be achieved through (for example) grants and flexible loans

to affected businesses alongside mentoring to get businesses through the difficult time (Francis et al. 2018). It is also an opportunity to design and implement services and infrastructure that addresses the practical needs of women, people with disabilities and other marginalised communities (UNDP Mexico et al. 2024). This can include accessible crossings, adequate signs, rest places, non-slip surfaces, and ample time for pedestrian crossings to ensure infrastructure is more inclusive with people with disabilities and others (UNDP Mexico et al. 2024: 28).

The BBB approach was adopted in the aftermath of the 2010/2011 Christchurch earthquakes in New Zealand and included key integrity and accountability considerations. The Canterbury Earthquake Recovery Agency (CERA) is the government agency created to coordinate the recovery effort after the earthquake (Francis et al. 2018). It focused on decision-making, communication, infrastructure, planning, deconstruction, economic recovery, welfare and land zoning (Francis et al. 2018). It enabled an effective and timely recovery and transparency communication with communities (Francis et al. 2018). There was also a separate Iwi Māori Recovery programme that covered issues with Māori land and reserves and the restoration of their cultural, sports and health areas (Francis et al. 2018).

In terms of governance, CERA ensured that there were timely inspections by local government authorities to ensure the quality of reconstruction and the structural integrity of buildings and other infrastructure (Francis et al. 2018). CERA established a recovery governance and coordination programme and ensured that monitoring and implementation included grassroots level involvement along with quality assurance and training. The Canterbury Earthquake Recovery Act 2011 was also passed to enable for a faster recovery and to facilitate recovery efforts.

Integrity and anti-corruption measures at the project level

Projects aimed at adaptation, response and reconstruction are typically directed by national and local governments and vary widely in scope, budget and timeframe. They can include, for example, building coastal protection or early warning systems for natural disasters (adaptation), temporary shelters for displaced communities or food distribution (response), or rebuilding homes and infrastructure rehabilitation (reconstruction). Large amounts of amounts of funding are required to complete these projects and many of these are implemented within shorter timeframes than other public projects. As such, this can mean that there can be a higher chance of corruption risks, particularly if typical oversight procedures are bypassed for shorter

implementation. The following sections review the literature on anti-corruption tools and measures which can be implemented to safeguard these projects. These tools and measures are primarily applied by project owners (typically government agencies) and the project implementers.

Corruption risk management

The basics of corruption risk management guide sets out the steps to implement corruption risk management throughout the project cycle. This approach can be adopted by any agencies responsible for implementing projects in response to extreme weather and climate events. An effective corruption risk management regime does not aim to eliminate all risks but rather determine a tolerable level of risk for a given activity and then bring those necessary risks down to a tolerable level (Johnsøn 2015: 3). This can be particularly relevant where responses must be immediate and bypass certain procedures.

The guide notes that a basic risk management process has a minimum of three stages:

- risk identification: identifying types of risk (bribery, nepotism, absenteeism, etc.) in each process or system, based on a generic risk model. There are existing tools that are helpful to identify and assess corruption risks, which include due diligence, political economy analyses, public expenditure tracking surveys (PETs) and community monitoring tools such as scorecards and social audits.
- risk assessment: estimating the magnitude of each type of risk (probability multiplied by potential impact).
- risk mitigation: putting measures in place to minimise risk, monitoring those measures to ensure they have their desired effect and redesigning them if they do not (Johnsøn 2015: 5).

Once the risks have been identified and the decision has been made to engage in mitigation, anti-corruption tools must be identified. These can include whistleblowing mechanisms, audits, investigations, evaluations, quality assurance systems, community monitoring or service delivery surveys (Johnsøn 2015). Several of these measures are explored in the following sections.

Due diligence of local partners

Intermediaries and implementing bodies are involved in disaster response as well as longer term adaptation and reconstruction efforts. Private sector partners play a central role in addressing climate adaptation efforts as well as emergency responses as they can help to maintain stable operations, secure suppliers,

preserve a licence to operate in the community, and enable the support and trust of stakeholders (USAID 2023). It is considered important that governments set out the norms and standards to which companies must adhere (USAID 2023). These are particularly important for integrity and anti-corruption.

Due diligence refers to a set of criteria and parameters and a suite of analytic practices to appraise the level and type of risk and benefits that an organisation that could be exposed to through an association with another business entity (UNSDG 2019). While there may be a temporary relaxing of some due diligence measures after the immediate crisis, this important step should not be abandoned entirely (UNSDG 2019).

Each organisation will have its own different due diligence requirements. Broadly speaking, due diligence assesses the background and reputation of a partner, obtain their registration details, and confirm their track record and ability to implement the planned programme with integrity (Jenkins et al. 2020). Risk-based due diligence should be conducted, with higher risk partners priorities (Jenkins et al. 2020). A rigorous ex-post accountability for conduct taken and money spent during the crisis should also be conducted to deter and detect any corruption (Duri 2021).

As an illustrative example, according to the United Nations Sustainable Development Group's (UNSDG) Common Approach to Prospect Research and Due Diligence for Business Sector Partnerships (2019), the exclusionary criteria (which are considered high-risk) include appearance on the UN security sanctions list, direct involvement in the manufacturing of controversial weapons, direct involvement in human rights abuses through operations, products or services, and systemic failure to demonstrate a commitment to meet the principles of the UN, including the Universal Declaration of Human Rights and the Rio Declaration (UNSDG 2019). Regarding climate adaptation projects partners, USAID (2023: 32) identifies factors such as whether a partner having ever been suspected or involved with greenwashing activities and whether the partner has a transparent and consistent climate strategy as important considerations in the due diligence process.

Whistleblowing mechanisms and community complaints mechanisms

Community complaints mechanisms provide citizens with channels to report any incidence or suspicion of corruption or other malpractice and for subsequent corrective action to be taken (Transparency International 2016). A properly functioning corruption complaint mechanism has the potential to strengthen the

organisation's credibility and reputation with society members, which is key in responding and reconstructing after disasters.

Transparency International (2016: 5-9) lists some good practices for establishing an effective community complaints mechanisms, which include:

- a wide range of reporting channels, including email, online and offline reporting tools, helplines, personal conversations, etc. These should all be free of charge, easily accessible, have the option of anonymity and be auditable
- the complaints handling procedure should be published and take into consideration any cultural characteristics or accessibility needs of the location
- all complaints should be recorded with an identifier, date and first actions for response, and two staff should conduct independent reviews of the complaints about decision-making
- complaints should be fact-checked, and this review should be independent, objective and impartial
- complaints should be recorded (such as through a database) and compliance monitoring should be conducted
- there should be clear roles for strategic oversight of the mechanism and codes of conduct for all staff involved

Reporting by government staff is also important to uncovering corruption, fraud and misconduct. It is recommended that every responsible public agency should have an internal whistleblower system, which, according to Terracol (2022) includes the following:

- protection of all whistleblowers or reporting persons
- an impartial person or department responsible for the operation of the internal whistleblower system
- accessible information about the whistleblowing system that is highly visible and accessible
- multiple reporting channels
- timely follow-ups to any reports

Resource tracking systems and aid transparency

Aid transparency data is a key instrument to hold all stakeholders in aid delivery to account, which includes governments, donors and CSOs, and helps to improve coordination between these different stakeholders (Rahman and Duri 2020: 5).

There are three aspects of aid transparency that are considered essential in the context of aid financing (Development Initiatives 2017):

- traceability: being able to 'follow the money' through the transaction chain from donor to crises affected people
- totality: reflecting all relevant resource flows including and beyond humanitarian assistance, bridging the humanitarian and development reporting divide
- timeliness: providing an up-to-date picture of the resources available is essential in fast-moving humanitarian settings

Box 3: International Aid Transparency Initiative Standard

The International Aid Transparency Initiative (IATI) is a framework designed to improve the transparency of aid and development operations. Organisations publish their data on activities and financial flows in the database, making it easy for stakeholders to access at any point. It follows a common reporting framework on all activities and project descriptions and can be used by a wide variety of stakeholders, including governments.

The increased transparency through the project helps increase accountability through the public and other stakeholders gaining access to where the money is spent. For example, the government of Madagascar used IATA data to discover the millions of dollars being spent on development and humanitarian projects in the country that were previously unknown (IATI n.d.). This has helped the government plan for spending and coordinate their own domestic resources better.

The UNDRR has published a handbook on tracking the money for climate adaptation and disaster risk reduction (Choi et al. 2023). This examines public finance for climate change adaptation and suggests a way forward for coordinated public expenditure through tracking of budgets for disaster risk reduction and climate change adaptation. It includes introducing legislative and policy frameworks to establish budget tagging and tracking and the development of common methodologies and technical guidance for budget tagging and tracking.

Participation of affected communities

A lack of consultation with ultimate beneficiaries could lead to inappropriate aid projects and further marginalisation of those affected according to Fenner and Mahlstein (2019: 249). To counter this problem, Transparency International (2016: 4) recommends using information and communication technologies (ICTs) to communicate with communities after a disaster, such as sending early warning information directly to people's phones and the use of social media or community

radio. After this immediate communication, direct consultations should then continue to inform people of their rights through public forums (Transparency International 2016: 4). Communities should also be engaged to monitor corruption risks, and local CSOs are well-placed to provide training and guidance in this (Transparency International 2016: 4).

In the case of the 2004 and 2005 tsunami in Indonesia, the initial plan for Aceh, Indonesia, was a top-down approach by the national planning agency working groups (BRR 2009: 39). However, the then acting governor of Aceh placed newspaper adverts inviting the public to town hall sessions to give input to the plan (BRR 2009: 39). This resulted in better planning for the planning of infrastructure as the community had knowledge of the land.

Climate adaptation projects have also found to be more successful when bolstering local community governance at the same time (Khan et al. 2022). This has the two positive impacts of strengthening resilience to extreme climate and weather events while also strengthening community accountability mechanisms. In Khan et al.'s (2022) study on flooding projects in Bangladesh, they found that community monitoring of climate adaptation projects had a positive impact on reducing corruption. This was particularly pertinent when individuals with economic capacity and/or membership of a powerful formal or informal organisation were involved (Khan et al. 2022). These groups can generate informal pressures on contracts and officials when they directly benefit from project completion, which is particularly important in the context of areas with weak formal governance structures (Khan et al. 2022: 932).

Abuse guidelines and codes of conduct

Transparency International's (2014: 11) handbook on Preventing Corruption in Humanitarian Operations sets out guidelines on codes of conduct for staff responding to a crisis. This includes providing a clear definition of corruption to staff and ensuring that it is understood by all staff members, that the code of conduct is stipulated in staff contracts, and that the repercussions for breaking the code of conduct are explained to staff, alongside their obligations to report corruption, declarations of interests and assets (Transparency International 2014: 11). The monitoring of the implementation of the code of conduct is also important.

Staff from government agencies responsible for responding to extreme weather and climate emergencies should have codes of conduct and undergo training in ethics. An example of a staff code of conduct is that produced by the US Federal Emergency Management Agency (FEMA). Their code of conduct sets out general

provisions for acceptable behaviour and sanctions for non-compliance as well as specific integrity provisions. These include (among others):

- not hold financial interests that conflict with the conscientious performance of duty
- not engage in financial transactions using non-public government information or allow the improper use of such information to further any private interests
- not solicit or accept any gift or other item of monetary value from any person or entity seeking official action from, doing business with or conducting activities regulated by FEMA
- not use public office for private gain
- disclose waste, fraud, abuse and corruption to appropriate authorities (FEMA n.d.: 9-10)

Given the interaction with vulnerable communities in response to extreme weather and climate events and the risk of sexual corruption, sexual exploitation and abuse codes of conduct should also be implemented (Transparency International 2014: 13). This should include a confidential complaints mechanism and the reporting of any sexual exploitation and abuse a staff obligation (Transparency International 2014: 13).

Monitoring of reconstruction efforts

Monitoring and evaluation of aid programmes is a critical component of corruption risk management (Shipley 2019). Monitoring, reporting and evaluation should be carried out independently by an entity external to those responsible for programme implementation (Fenner and Mahlstein 2019: 250). In countries that allow for freedom of expression this also can be carried out by communities through citizen's audits (Fenner and Mahlstein 2019: 250).

Information and communication technologies (ICTs) were found to be particularly effective in ensuring community monitoring of resource allocation and feedback after a disaster (Shuvo et al. 2022). A proper ICT-oriented system can provide real-time information, transparency and quick response from every authority and an effective monitoring-evaluation-learning process towards rebuilding a better scenario for society (Shuvo et al. 2022: 236). These can include broadcasting information via radio, TV etc, one-to-one through peers, and social networks and community crowdsourcing (Shuvo et al. 2022).

Another important component of monitoring is coordination and communication between all stakeholders involved in reconstruction projects. Effective

communication between stakeholders was found to be important in increasing transparency, accountability, participation and the mitigation of corruption in post-disaster reconstruction projects in Angola (Sospeter, Rwelamila and Gimbi 2020: 50). Other determinants of success found in the study included adequate funding, effective planning, competent project managers, active involvement of stakeholders and the community, good written contracts, learning from previous experiences and support from top management (Sospeter, Rwelamila and Gimbi 2020: 52).

Audits and expenditure tracking

Tracking disaster response budgets is imperative to ensure transparency during an emergency, given that there is a surge of public expenditure in emergency relief and rebuilding infrastructure (Sutherland, Skalon and Allan 2024). There are several tools that can be used for budget tracking, which include public expenditure tracking surveys, participatory budget spending reviews, public hearings among others.

Budget tagging and tracking involves categorising certain budget allocations related to climate change adaptation and disaster resilience. The tracking component involves monitoring how these funds are then used throughout the budget cycle, evaluating their impact on enhancing resilience. These mechanisms are particularly useful in identifying financing gaps and potential resources for climate and disaster resilience as well as increasing transparency and accountability (Choi et al. 2023). Green budget tracking initiatives have been supported by the OECD and the European Union.

The disaster resilient and responsive public financial management assessment tool is designed to help countries strengthen their public financial management (PFM) systems to prepare for, respond to, and recover from disasters (World Bank 2022). It covers five main pillars of PFM: planning and budgeting, public investment and asset management, budget execution and control, public procurement, and audit and oversight (World Bank 2022: 2). The assessment tool considers how central finance agencies can use risk analysis to inform risk reduction, response, recovery and planning and how to strengthen a country's capacity to manage risks and sustain PFM functions during a time of crisis (World Bank 2022).

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