Flood Resilience Alliance

POLICY BRIEF
AUGUST 2019

Reaching the Sustainable Development Goals

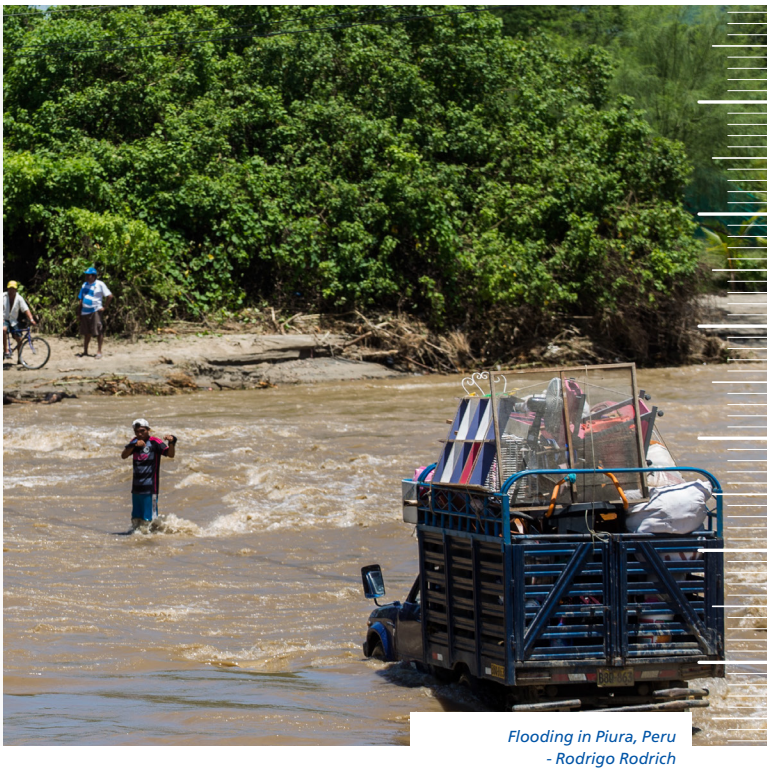
The need for building resilience

Summary

Floods, which affect more people around the world than any other hazard, are undermining countries' progress towards reaching the Sustainable Development Goals (SDGs).

Studying the effects of floods and the actions needed to build resilience can provide examples of how countries and donors can address hazards and make communities more resilient in ways that also support achieving the SDGs. The annual High Level Political Forums (HLPF) and Voluntary National Reviews are important opportunities to embrace this learning.

By incorporating resilient, climate-smart thinking into disaster risk management, climate change adaption, and development agendas, countries and donors can ensure that the SDGs are not undercut by the impacts of floods and other extreme events.



Flooding in Piura, Peru - Rodrigo Rodrich

Recommendations

- Increase funding for disaster risk reduction (DRR) and climate adaptation measures that strengthen resilience to floods and other climate-related hazards. Reducing the impacts of these hazards can provide countries with the space and opportunity to achieve the SDGs.
- Donor and national funding for building resilience needs to reach and strengthen local level structures where the impacts of disaster are most felt.
- Integrate DRR, climate adaptation, and resilience building into development policies, strategies, and practices to avoid losing SDG gains. The integration of flood risk reduction policies with development plans, for example, can help reduce risk while also advancing community development goals. Likewise, the integration of disaster risk management (DRM) and climate change adaptation policies and institutional structures can help reduce duplication of efforts. By aligning laws and policies, countries and communities can build resilience in a more integrated way.
- Design DRM, climate adaptation, and resilience-building efforts based on local context in collaboration with at-risk communities and local organizations. Efforts that consider the local environmental, social, and development context can better support communities in achieving the SDGs.
- Prioritize the most vulnerable and marginalized for DRM, climate adaptation, and resilience-building investment and programming to ensure that those most at risk benefit first.

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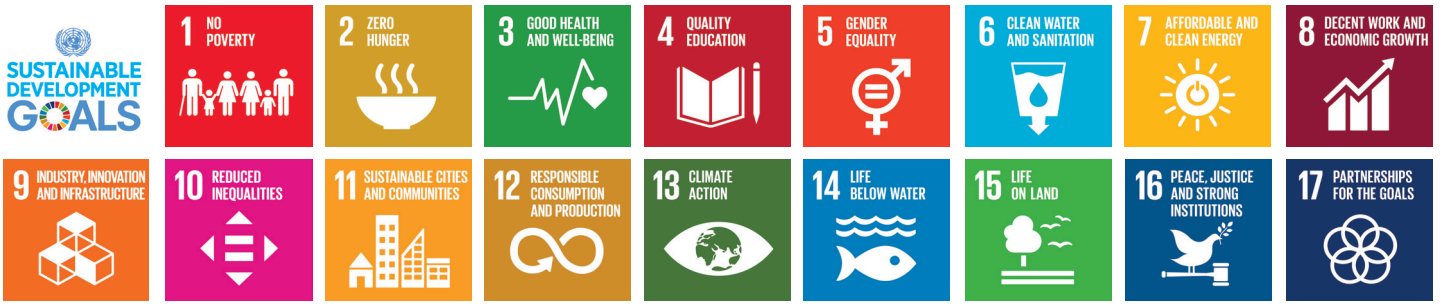

The problem

Global warming is increasing the severity of flooding and other hazards, with negative impacts on livelihoods and on countries' ability to reach their SDGs[1]. The recent IPCC Special Report on Global Warming of 1.5°C highlights the fact that climate change will affect almost all the development goals, and increase risks for the world's poorest and most vulnerable (IPCC, 2018). Besides mitigating the drivers of climate change, there are steps countries can – and must – take to adapt to climate change[2]. This policy brief explores just one hazard, floods, which already affect more people globally than any other type of natural hazard. Climate change is expected to make flooding worse. This brief calls on policymakers and donors to increase funding for building flood resilience and to incorporate resilience and systems thinking into national development plans and strategies, so that floods and other hazards do not need to derail countries' efforts to reach the SDGs.

The impacts of flooding undercut nearly all of the SDGs: Floods can damage livelihoods, limiting communities' ability to access the resources they need to rebuild and return to business as usual (SDG 1). Rebuilding and recovering after floods can divert funds away from other development priorities, including initiatives to alleviate poverty (SDG 1). These impacts can have cascading effects on people's ability to support family and access necessities including food and clean water (SDG 2). Especially for the most vulnerable, who are often worst affected by a disaster, the economic impacts of a flood can make recovery difficult (SDG 10) and can exacerbate poverty (SDG 1).

How floods undercut the SDGs

Flooding Impacts	SDGs
Impacts on jobs and livelihoods For example, over 70% of farmers in Pakistan lost over half their expected incomes following the 2010 floods.	1 NO POVERTY, 2 ZERO HUNGER
Crop losses For example, in Pakistan the 2010 floods caused ~$5 billion in agricultural losses.	1 NO POVERTY, 2 ZERO HUNGER
Damages to vital infrastructure Iran suffered 30.6 million in damages to their water infrastructure and delivery networks.	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Slowing economic growth and limiting investment	11 SUSTAINABLE CITIES AND COMMUNITIES, 8 DECENT WORK AND ECONOMIC GROWTH

Negative coping strategies to respond to flooding have different impacts on different groups of people, including men, women, girls, boys, and the elderly, and can exacerbate inequalities (SDGs 1, 2, 5, and 10). In Peru, for example, impacts on livelihoods resulted in increased male-migration for employment, leaving women, for the most part, to deal with the burdens of post-flood health challenges.

Floods can cause severe damage to the agriculture sector. For example, crop production losses caused by the 2010 floods in Pakistan directly affected cotton ginning, rice processing, and flour and sugar milling, while cotton and rice imports surged. Approximately 50 per cent of the US$10 bn in total damages and losses fell on the agriculture sector (SDG 2). Damages to crops and impacts on soil can also have cascading effects on food availability and livelihoods (SDGs 1, 2, and 15). For example, the Pakistan floods affected 4.5 million workers, two-thirds of whom were employed in agriculture, and over 70 per cent of farmers lost more than half of their expected income (Lipin and Ahn, 2019).

The high cost of relief and recovery may undercut infrastructure and other development activities (SDG 9). Damages to vital infrastructure (dams, levees, power plants, water treatment facilities) may also compromise communities' ability to continue business as usual and/or further develop (SDG 9)[3]. Recurrent flooding may also discourage long-term investments by governments and the private sector, affecting jobs and livelihoods (SDG 1).

Flooding can also have wide ranging social and health consequences. The direct health impacts of floods can include drowning, heart attacks, injuries, and hypothermia (SDG 3). Indirect effects include injuries and infections, waterborne infectious disease, mental health problems, respiratory disease, and allergies, in both the medium and long term after a flood. Flooding can also lead to disruptions in education due to physical damage of school buildings or inaccessibility, or due to the direct impacts on students (SDG 4). In communities with high levels of gender inequality, women are more exposed to risk and often bear the unequal impacts of a disaster including livelihood loss and gender-based violence following an event (SDG 5).

The social, economic, and infrastructural consequences of a flood can affect communities' and cities' futures by slowing economic growth and limiting their capacity to contribute to sustainable development (SDG 8 and 11). Often, post-disaster funds or initiatives are at odds with the SDGs as they incentivize building back to the pre-disaster state and resuming the status quo, which can reinforce pre-existing vulnerabilities and misses the opportunity to 'build back better'.

The way forward

Achieving the SDGs will require a radical rethink of how we manage risks, including climate change impacts (SDG 13). A renewed focus on preventing and mitigating flooding, the most prevalent disaster globally, as well as other natural hazards, is urgently needed. However, current investments in flood preparedness and prevention are inadequate. Mitigating and reducing the impacts of floods can provide countries with the space and opportunity to continue to pursue their social, ecological, and economic development, and growth objectives. Governments and donors dedicated to reaching the SDGs should:

Increase funding for building resilience. There are measures that can reduce the impacts of floods and other hazards, but they are under-resourced, especially for vulnerable populations. While global adaptation needs are great, only about $15 bn has been provided for developing countries, while an estimated $140–300 bn is needed by 2030. Donors must increase overseas development aid for adaptation and DRR while national governments must increase investments in their own resilience. By investing in DRM, governments can build resilience and ensure that their countries' development trajectories are not derailed by floods and that they can continue on their path to achieving the SDGs.

Integrate DRR into development policies and practices and support climate-smart, risk-informed development as part of strategies to reach the SDGs. Currently, most DRR measures are distinct from actions that might address social and economic issues. Governments must embrace systems approaches that integrate DRR, climate adaptation, and development policy and practices. Additionally, basing these efforts on the local context can support communities in their development and assist them in achieving the SDGs. DRR and development should not be approached as separate goals. Solutions exist that can reduce risk while also encouraging social and economic development. Implementing these solutions can ensure that the SDGs are not compromised by the impacts of floods and other extreme events.

Plan for resilient recovery. In planning for recovery, countries and communities should consider how reconstruction can contribute to building back better. Doing so can expedite recovery and help avoid a return to the vulnerable status quo, which led to losses and damages.

Leave no one behind. This requires not only scaling up action to prevent hazards from becoming disasters, but ensuring that the most vulnerable and the most marginalized are prioritized for inclusive climate change adaptation and DRR investment and programming.

Support local responses and ensure domestic and international funding reaches the community level. Currently, little of climate finance reaches local levels (Soanes et al., 2019). Yet the impacts of floods are felt most immediately at the local level, and communities and local authorities hold important knowledge on where and how to build resilience. Effective resilience building demands working with vulnerable communities. Communities need increased decision-making power and more funding to empower them to manage changing risks and to ensure that longer-term resilience is built. National development plans and Voluntary National Reviews should include specific plans for bringing adaptation and DRR funding down to local levels.

Foster partnerships. As called for by SDG 17, new partnerships are needed to address the complexities of global problems. All stakeholders should use knowledge and expertise from different sectors and across multiple levels of governance to build resilience across systems (natural, social, financial, physical, and human). This integrated approach ensures that DRR is focused not solely on infrastructure, but on both social and physical systems which can help to reduce losses and damages from floods. The Zurich Flood Resilience Alliance offers a model of how to address the complex problem of flood resilience. The Alliance brings together INGOs, the International Federation of Red Cross and Red Crescent Societies, Zurich Insurance Group and academic institutions to identify and implement practical ways to help communities in developed and developing countries to strengthen their resilience to flood risk.

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[1]United Nations Sustainable Development Goals <https://sustainabledevelopment.un.org/?menu=1300>

[2]As noted in the Co-Chairs' Summary of the Global Platform for Disaster Risk Reduction 2019: 'Progress has been made in implementing the Sendai Framework. 116 countries are reporting through the Sendai Framework Monitor. This is a crucial step towards a better understanding of risk and the risk-informed implementation of the Sustainable Development Goals (SDGs)' (Sager and Mizutori, 2019).

[3]SDG 9 calls for 'Build(ing) resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation'. Unfortunately it does not include a climate change target. This is a missed opportunity that needs to be addressed as buildings and infrastructure have long lifespans and new infrastructure and development can play a major role in driving climate change risks and locking in emissions from poor development choices.

The Zurich Flood Resilience Alliance is a multi-sectoral partnership which brings together community programmes, new research, shared knowledge, and evidence-based influencing to build community flood resilience in developed and developing countries.

We help people measure their resilience to floods and identify appropriate solutions before disaster strikes.

Our vision is that floods should have no negative impact on people's ability to thrive. To achieve this we are working to increase funding for flood resilience; strengthen global, national and subnational policies; and improve flood resilience practice.

Find out more: www.floodresilience.net

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