NEWS FEATURE:

Providing aid before climate disasters strike

Human lives can be saved when climate disaster prevention is part of international development aid.

Lisa Palmer

Of all the natural disasters in the world, 93% are climate related[1]. As the global climate is increasingly changing, the prevalence of natural disasters is expected to increase and affect humans and their environments. Sudden disasters such as cyclones and floods, and slow-onset phenomena (droughts, for example), destroy communities and affect human lives. Estimates report that 32 million people were displaced by disasters in 2012[2], twice as much as the previous year[3].

International investment in disaster risk-management practices is tiny. Of over US$3 trillion committed in international aid in the last two decades, just US$13.6 billion was spent on reducing risks from natural disasters, compared with US$23.3 billion spent on reconstruction and US$69.9 billion spent on response after disasters occur[4]. Furthermore, the allocation of financing has been distributed inequitably among the most fragile countries and is a tiny fraction of overall annual investments in development aid[5].

"There's not a huge amount of money," says Jan Kellett, a climate and environment researcher at the Overseas Development Institute, UK. "The money is heavily concentrated in middle income countries, and there are a bunch of low income countries that get almost no money at all. The overall figures tend to mask that data."

Consider Niger. The country experienced two major droughts and famines in the last 10 years, yet almost no money was spent on preparing for the disaster or preventing it. Between 2005 and 2006, Niger experienced a devastating food crisis due to locusts, drought and increasing desertification. Over the past 20 years, Niger received just US$20 million from the international community for disaster risk and reduction (Table 1), and most of that amount came in the past few years. As drought is a slow-onset disaster, Niger's plight indicates how the flow and direction of financing for natural disasters under climate change should be re-examined to reduce the risk for communities and people, Kellett's report explained.

Drought, which is widespread in parts of the world suffering from a changing climate, tends to get left behind because it does not grab the attention of the media and donors the way a sudden cyclone or an earthquake might," says Kellett. "Many countries that suffer from regular drought have received almost no money for disaster risk reduction. Niger is an example. It's far too little, and it's often too late."

Compare Niger's slow-onset disasters with the sudden-impact disasters such as the tropical storms of Bangladesh and Myanmar. In 1990, Bangladesh experienced one of the deadliest storms on record when a cyclone devastated the country and killed 178,000 people. By comparison, Cyclone Sidr in 2007 was reportedly bigger than the 1990 storm that came ashore in Bangladesh, yet the impact was markedly lower — between 5,000 and 10,000 people lost their lives. "Half of the reason for the reduction in the number of deaths was early warning systems and preparedness," says Kellett. "The international community put in place SMS systems on mobile phones for early warnings, and cyclone shelters, among other measures. Within a period of 20 years, investments in disaster risk reduction clearly saved lives." In contrast, Myanmar has had very little investment in preparedness — just US$10 million since 1991. When Cyclone Nargis came ashore in 2008 in Myanmar, it was similar in magnitude to Cyclone Sidr yet was responsible for 138,000 fatalities, Kellett reported.

Table 1 | The ten countries with the highest percentage of their population affected by drought, 1991–2010.

Country	Percentage of population that is annually affected by drought (averaged over 20 years)	Mortality risk index	DRR over 20 years (US$ millions)	DRR per capita (US$)
Malawi	8.32	5	14.51	1.26
Niger	8.15	4	19.86	1.78
Swaziland	7.47	4	4.86	4.68
Somalia	7.37	n/a	1.96	0.26
Kenya	6.96	5	126.44	4.01
Eritrea	6.84	4	0.28	0.07
Djibouti	6.14	5	0.15	0.17
Zimbabwe	5.85	5	0.43	0.04
Mauritania	5.35	4	5.45	2.04
Lesotho	5.01	4	2.77	1.43

The mortality risk index is a measure of human exposure and identification of vulnerability to natural hazards, including both frequency and severity. The index does not include drought, but this limitation has been addressed by adding the percentage of the population affected by droughts over the same period . Index categories: 1, Negligible; 2, Very low; 3, Low; 4, Medium Low; 5, Medium; 6, Medium high; 7, High; 8, Very high; 9, Major. DRR, Disaster risk reduction. Table reproduced with permission from ref. 1, © 2013 Global Facility for Disaster Risk Reduction.

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Funding channels

Now international agencies are seeking better coordinated and effective funding for preparedness and risk management. "What we have learned over the past few decades is that there can be no sustainable development without disaster risk reduction," says Jo Scheuer, coordinator for the disaster risk reduction and recovery team at the UN Development Program. "Time and again we have seen years of hard work and billions in development aid washed away by the latest disaster."

Funds mostly come through humanitarian channels after disaster strikes. Scheuer says, "Although there is absolutely a humanitarian component, especially to disaster recovery, successful disaster prevention and preparedness has to happen before the emergency and before humanitarian funds are necessary." Scheuer added that both donors and national governments should consider disaster risk reduction as an inherent component of sustainable development, as this will protect their investments and lessen the need for humanitarian response. "It is important that disaster risk reduction be considered a cross-cutting component, spanning development aid and humanitarian relief; in this way it will be taken into consideration before, during and after a disaster," he says.

In March of 2013 the UN agreed — for the first time ever — on a plan of action for reducing risks from disasters. According to Margareta Wahlstrom, special representative of the Secretary General for Disaster Risk Reduction at the UN Office for Disaster Risk Reduction and Resilience (UNISDR), the plan will help to implement policies such as the Hyogo Framework for Action — a 10-year plan initiated in 2005 to make the world safer from natural hazards and to help support sustainable development by having more accountability around risk management[6]. Many of the countries that need funding to reduce risks from disasters are getting the least. The reason is that funding mostly comes from donors through humanitarian budgets.

"The very strong linkages between climate change and disaster risk are clear already," says Wahlstrom. "The challenge is that the funding is not yet used well. Too much is called climate adaptation money. It is actually more than can be allocated to and used for many donors. These resources could also be used for what we would call disaster risk reduction. Not [to be] dogmatic about it, but if you can integrate better climate action with immediate action, which is the most effective, you will achieve a lot more."

This is already beginning to happen. In the Pacific, the leadership last year decided to integrate the programs and policies around climate change and disaster risk precisely because they can use the existing financial resources more wisely without duplicating effort in flood management, health care and other programs.

Funding prevention

The unpredictable nature of disasters continues to be the heart of the preparedness problem. And, as climate change continues to unfold and natural disasters are even more unpredictable, the issue of preparedness compounds. According to Kellett's analysis, most of the top 20 countries or regions that received funding for disaster-related emergency response (with the exception of Indonesia, Bangladesh and Sri Lanka), received less than 4% of their overall disaster financing for prevention and preparedness. The upfront costs of improving infrastructure and implementing programs for disaster prevention are a difficult financial hurdle to overcome. With a changing climate this can be doubly difficult because the threats and risks may not seem immediate.

If a programme requires a high upfront cost to prepare for natural disasters and has long term benefits, it can be more effective if treated as a long-term loan spread out over time, according to research by Howard Kunreuther, a professor of decision sciences, business economics and public policy at the Wharton School of Business, and co-director of the Wharton Risk Management and Decision Processes Center, USA. Moreover, his analysis of low-income communities shows that coupling infrastructure and preparedness investments with climate change mitigation efforts can effectively reduce the costs of those programs for federal governments[7]. He says that policies that advocate a "carrot and stick" approach can help prevent loss while mitigating risk from climate change.

At the core of financing to reduce risks from natural disasters caused by climate change lies a belief that financial support can prevent devastation and develop resilience. Hazards strike. Lives are often lost. Social, economic and environmental assets are jeopardized. With climate change, prevention can bring a more effective response from the development aid community.

It seems reasonable to incorporate climate change-related vulnerability, exposure and susceptibility into disaster risk management, especially as many low-income countries may not always suffer sudden-onset disasters[8]. As the Hyogo Framework for Action explains — by mentioning all of the work required from different sectors to reduce disaster losses by 2015[9] — disaster risk can still be prioritized by making it a fundamental component of development and adaptation, rather than a crisis concern[10]. ❐

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