ESCAP Multi-Donor Trust Fund for Tsunami,
Disaster and Climate Preparedness in
Indian Ocean and Southeast Asian Countries

Strategic Note 2013-2016

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1 Introduction

Background

The ESCAP Multi-Donor Trust Fund for Tsunami, Disaster and Climate Preparedness in Indian Ocean and South East Asian Countries ("the Trust Fund") was established in 2005 through a US$ 10 million contribution from the Royal Thai Government. The Trust Fund's initial, overall objective was to build and enhance tsunami early warning capacities at various levels by responding to the needs of Indian Ocean and South East Asian countries.[1] In addition to Thailand, the governments of Sweden, Turkey, Bangladesh, the Philippines and Nepal have all contributed financially to the Trust Fund.

The Trust Fund was expected to contribute to the development of an integrated regional early warning system comprising a network of collaborative centers connected to sub-regional and regional platforms. To this end, the Trust Fund applied a multi-hazard approach in line with the principles of effective and people centered end-to-end early warning systems. In 2010, the scope of the Trust Fund was expanded to include climate and disaster preparedness within the core areas of support, while retaining a focus on early warning for coastal hazards.

Key achievements to date

The results of the Trust Fund have exceeded expectations. As of April 2013, the Trust Fund had supported 22 projects with a total budget of approximately US$ 12.3 million, directly benefitting 19 countries. Projects cover a number of aspects of early warning, including but not limited to: monitoring and warning services that provide support to lower capacity countries; risk maps for community preparedness planning; Standard Operating Procedures (SOPs); and, education and public awareness activities. The Trust Fund contributed to the establishment of the Indian Ocean Tsunami Warning System (IOTWS), which entered into operation in October 2011, and as such the Trust Fund met its initial objective. It is estimated that the IOTWS, in a conservative estimate, will contribute to the saving of 1,000 lives per year over the next 100 years.

The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) was established in 2009 as a result of Trust Fund projects. RIMES, a collective resource for member countries, provides a range of cost-effective early warning and climate application services. These have led to improvements in early warning systems and capacities, especially in low capacity countries. Products include improved typhoon and cyclone tracking and longer-lead, location-specific agro-advisories, which have positively impacted on livelihoods.

1 The countries covered by the Fund are: Australia, Bangladesh, Brunei Darussalam, Cambodia, China, India, Indonesia, Islamic Republic of Iran, Lao PDR, Maldives, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, Sir Lanka, Thailand, Timor Leste and Viet Nam.

Way forward

Since its inception, the Trust Fund has proved to be a useful mechanism to strengthen the regional dimension of early warning and climate applications and to provide specific support to countries based on a regional approach. Going forward, building on its achievements, opportunities and comparative advantages, the Trust Fund will focus its efforts on three pillars: (i) regional intergovernmental mechanisms; (ii) specific country needs; and (iii) civil society innovations and business sector initiatives. This framework will facilitate a more coherent portfolio and allow for soft earmarking to specific pillars if desired.

2 Challenges and opportunities

The region continues to face disaster threats

Asia-Pacific is the most disaster-prone region of the world. Between 1970 and 2011, nearly two million people were killed by disasters in this region, an alarming figure that represented 75 per cent of global disaster fatalities during this period.[2] Whether the hazards are geophysical, hydro-meteorological or climatological, their impact is greater in Asia-Pacific than anywhere else in the world. In this context, the understanding of the different risk factors is improving as better data, research and technologies become available and are circulated more widely.

Disasters undermine development

Disasters exacerbate poverty, vulnerability and economic inequity. The poor in any society are generally more vulnerable to disasters, and bear the brunt of overall damages and losses. Likewise, people in low-income countries are more exposed to natural hazards than those in high-income countries. Disasters can impede and even roll-back progress made towards the Millennium Development Goals (MDGs). Meanwhile, rapid economic growth alone does not reduce vulnerabilities sufficiently, but can lead to even greater exposure to a variety of disaster risks. Therefore, building resilience is an integral part of efforts to reduce poverty and achieve the MDGs.

Urbanization brings new vulnerabilities

Rapid urbanization heightens exposure to hazards and increases vulnerabilities, especially among the poor. In 2011, ten of the world's 20 megacities were located in Asia. The share of the total population in Asia living in urban areas increased from 17 per cent in 1950 to 44 per cent in 2010, and will likely reach 64 per cent by 2050. Cities with the highest concentrations of people tend to be the areas with the highest risk related to disasters.

Coastal areas are heavily exposed

Eight of the ten countries in the world with the largest populations residing in low elevation coastal zones are found in Asia. Most have heavily populated delta regions, which are exposed to disaster risks from rising

[2] Asia Pacific Disaster Report 2012, ISDR and ESCAP, 2012 (http://www.unescap.org/idd/pubs/Asia-Pacific-Disaster-Report-2012.pdf)

tides, tropical storms, sea level rise and high river flows. Despite these risks, coastal settlements continue to attract people and are growing more rapidly than those inland, putting additional people at risk to coastal hazards.

Climate change increases risk

Adapting to the added risks brought about by climate change is a major challenge for countries in the Asia-Pacific region. The observed effects of climate extremes and variation suggest that, while the overall number of tropical cyclones (typhoons in Eastern Asia and the Pacific) may not be increasing, the intensity of the cyclones is on the rise, making the region as a whole more susceptible to disaster losses. This situation is becoming more serious due to current migration patterns, with more people settling in coastal areas exposed to the risk of tropical cyclones.

Early warning systems save lives

Improvements in end-to-end early warning systems have contributed to the saving of lives and property. Advances in technologies are also making systems more accurate, and experience has shown that spending on early warning systems and hydro-met applications has high returns. However, many of the countries covered by the Trust Fund have not yet benefited as much as they could have from such improvements in early warning, and unmet gaps still remain. Likewise, despite notable progress towards achieving the MDGs, there are pockets of poverty across the region, where early warning systems need to be extended and further strengthened.

Regional standards and data sharing are vital

As hazards are transboundary, many of the solutions involve cooperation between countries. While SOPs need to be context- and hazard-specific, common standards are becoming the norm across the region. Standardized multi-hazard risk mapping and vulnerability assessments, policies for simulations and drills, and standardized information storage, accessibility