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#### THE CHANGING GLOBAL CLIMATE

The climate is changing, and the evidence is unmistakable. At the United Nations Climate Action Summit in New York in October 2019, Secretary-General António Guterres opened the proceedings, noting that the years 2015 to 2019 were the five hottest years on record. He stated,

Seas are rising and oceans are acidifying. Glaciers are melting and corals are bleaching. Droughts are spreading and wildfires are burning. Deserts are expanding and access to water is dwindling. Heat waves are scorching and natural disasters are multiplying. Storms everywhere are more intense, more frequent and more deadly... As the scientific community has told us again and again, we need to cut greenhouse emissions by 45% by 2030; reach carbon neutrality by 2050; and limit temperature rise to 1.5 degrees by the end of the century.<sup>36</sup>

This dire warning was preceded in October 2018 when the Intergovernmental Panel on Climate Change issued a Special Report on Global Warming of 1.5°C which stated that:

Human activities are estimated to have caused approximately  $1.0^{\circ}$ C of global warming above pre-industrial levels, with a likely range of  $0.8^{\circ}$ C to  $1.2^{\circ}$ C. Global warming is likely to reach  $1.5^{\circ}$ C between 2030 and 2052 if it continues to increase at the current rate.

The report makes clear that such a warming trend will have "rapid and far-reaching" impacts on land, energy, industry, buildings, transport and cities.<sup>37</sup>

We know that countries and communities that anticipate and put in place measures to mitigate the risks of extreme weather events face less destruction, and build back faster than those that don't. Yet we also know, especially over this past decade, that even countries with strong coping and adaptive capacities can struggle to deal effectively with the expanding nature of the hazards they face.

<sup>36</sup> https://www.un.org/sg/en/content/sg/speeches/2019-09-23/remarks-2019-climate-action-summit

<sup>37</sup> https://www.ipcc.ch/sr15/

The battle to curb carbon dioxide emissions dovetails with the human development goal of leaving no one behind. The challenges to vulnerable developing countries are profound. Many struggle with fragile health systems, malnourished populations, haphazard land planning, poor infrastructure and inadequate emergency response systems. We know that over 95 percent of the recorded deaths from natural disasters between 1985 and 2008 occurred in developing countries.

Support for adaptation, especially for the poorest and most vulnerable countries, will be a critical part of the global response to global warming. While no country in the world will be insulated from the consequences of global warming, some countries have a particularly high exposure. This is especially apparent in the case of some small island developing States, where rising sea levels pose an existential threat. Beyond questions of exposure, it has been shown that poor countries and the poor communities within countries are more vulnerable to global warming than richer ones. If smart choices are not made now, climate change will exacerbate and further entrench inequalities both within and between countries

#### **GLOBAL CLIMATE PRIORITIES**

Sustainable Development Goal 13, on climate action, has five global targets. These are to:

- 1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- 2. Integrate climate change measures into national policies, strategies and planning.
- 3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
- 4. Implement the commitments undertaken by developed country parties to the United Nations Framework Convention on Climate Change, to mobilize jointly \$100 billion annually, starting in 2020, to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, and fully operationalize the Green Climate Fund through its capitalization as soon as possible.
- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

## **EVALUATING CLIMATE CHANGE ADAPTATION**

The Independent Evaluation Office (IEO) of the United Nations Development Programme (UNDP) is undertaking an evaluation of UNDP assistance to countries on climate change adaptation. Its objective is to evaluate the achievements and performance of UNDP in helping partner countries reduce climate-related risks and adapt to new climate conditions. The evaluation is taking up questions such as:

- How is UNDP contributing to improved climate change adaptation of partner Governments and achievement of their adaptation goals? In what areas are achievements observable?
- How is UNDP helping to ensure the pledge of the 2030 Agenda for Sustainable Development to "leave no one behind" and "endeavour to reach the furthest behind first" in its climate change adaptation support? How has adaptation support helped to foster more sustainable consumption and production patterns, so that natural resources can support the needs of future generations in the context of a warmer planet? To what extent has UNDP considered gender aspects in its work in support of climate change adaptation?
- In areas where results have proven to be more elusive, how can UNDP better support partner Governments to overcome their climate change adaptation challenges?

The National Evaluation Capacities (NEC) Conference, held in Hurghada, Egypt in October 2019, provided an opportunity to bring government officials and evaluators together to discuss the Sustainable Development Goals. The proceedings included a distinguished panel of United Nations and national government officials considering how the international community and national and local leaders are taking up the challenge of adapting to a warmer world. Included in the panel were:

- Mashavu Omar, Commissioner for Monitoring and Evaluation, Zanzibar Planning Commission, Zanzibar, United Republic of Tanzania
- Keiichi Muraoka, Director, ODA Evaluation Division, Ministry of Foreign Affairs, Japan
- Zénabou Segda, Coordinator, Women's Environmental Programme, Burkina Faso
- Serdar Bayryyev, Senior Evaluation Advisor, Food and Agriculture Organization of the United Nations (FAO)
- Dustin Shinn, Regional Climate Change Specialist, UNDP Regional Hub for the Arab States

### **KEY TAKEAWAYS FROM THE NEC CLIMATE CHANGE ADAPTATION PANEL**

- Climate change is having real consequences across the developing world. For example, the Arab States include 14 of the world's 20 most water-stressed countries. Current climate change projections show that by 2025, the water supply in the Arab States region will be only 15 percent of the levels available in 1960. The region has a 4 percent annual deforestation rate, largely due to charcoal production. Between 2007 and 2017, the region saw one of its most severe drought cycles, triggering large internal displacement and exacerbating social disruption and instability.
- 2. A 2011 study of the economics of climate change in Zanzibar<sup>38</sup> noted that over the previous 30 years, temperatures had been rising and rainfall was increasingly unstable, with heavy intermittent rains reaching a recording 212 millimetres of rain in just one seven-hour period. The increased variability and intensity have continued since 2011, with resulting loss of life, homes and other infrastructure. The increased variability of rain has imperilled farm production. Higher offshore winds have increased wave activity associated with coastal erosion, and the resulting intrusion of salt water into low-lying agricultural land makes these lands unfit for production, with higher incidences of contaminated drinking water.
- 3. Existing agriculture and food systems are partly responsible for climate change. Recent estimates are that up to 20 percent of greenhouse gas emissions are from agricultural activities. But at the same time, appropriate actions to ensure sustainability in agriculture and food systems, forestry and fisheries can actually mitigate greenhouse gas emissions and promote climate change adaptation. Ninety percent of countries today, in their intended nationally determined contributions to climate mitigation, referred to agriculture, land use and the forestry sector as part of their contributions to mitigation and adaptation.
- 4. United Nations agencies are heavily involved in providing support to developing countries on climate change adaptation, especially with funding provided by the Global Environment Facility (GEF), Adaptation Fund and Green Climate Fund. UNDP works in over 100 countries to improve climate resilience. By the end of 2019, UNDP had secured \$1.2 billion for 124 climate-related projects that support 99 countries, with \$1.35 billion in the pipeline.

<sup>38</sup> See part 2, chapter 6, "Climate Change Adaptation in Zanzibar and the Implications for Evaluation" by Mashavu Khamis Omar for an in-depth discussion of this study.

- 5. An estimated 25 percent of the project portfolio of FAO is dedicated to or significantly associated with climate change. In 2015, work on climate change was adopted as a cross-cutting theme in the FAO strategic framework, guiding all FAO programming, advisory services and other activities. FAO works to promote and apply sustainable food and agriculture principles; generate data in support of sustainable production; and expand the use of climate-smart agriculture and conservation agriculture.
- 6. Conservation agriculture and climate-smart approaches are being introduced, yet adoption is at a very slow pace and there is limited scale-up. This was particularly the case in food-insecure and vulnerable regions of sub-Saharan Africa and South-East Asia, where barriers to adoption include land ownership insecurities, limited property rights, low levels of investment and support for agricultural research and extension and high operational costs. The conservation agriculture approaches used in FAO-sponsored projects in Morocco and Zambia resulted in reduced use of mechanized labour and in lower labour and energy costs. However, there were also substantial investment costs to purchase required equipment and herbicides, emphasizing that climate-smart techniques require long-term approaches and containing financial support to see sustainable benefits. In the case of the project in Morocco, adoption was also challenging for the farmers, as it involved specialized expertise to introduce and manage new land and crop management techniques.
- 7. An important effort in the United Republic of Tanzania has been to strengthen the capacity of the Tanzania Meteorological Authority so it can give meteorological data on a timely basis, providing early warning of high winds, heavy rains and other high-risk climate conditions. Other efforts have been to institutionalize capacity-building on climate change coordination and to reach out to vulnerable populations, including coastal farmers, seaweed collectors, etc., so they are better aware. There are challenges of course, as the cost of changing practices can greatly exceed what local farmers can manage. (This is expanded upon in the next paper in this volume, *Climate Change Adaptation in Zanzibar and the Implications for Evaluation*.)
- 8. The work of the Government of Japan in support of the Philippine Government's natural disaster risk management is instructive. Evaluations of this work make clear the importance of mainstreaming disaster risk reduction by compiling disaster statistics and introducing a disaster risk management system in the country. This is more than just a matter of providing loans and grants to build infrastructure and obtain equipment, as capacity-building is essential and efforts are needed to increase partnerships with the energy sector and the private sector in order to increase resilience to national disasters. In addition, one of

the most important efforts is to get local communities involved by way of education, information and communication with all stakeholders. (See also *Japan: Evaluation and the SDGs* on page 52.)

9. The private sector, in particular the insurance industry, has an important role to play, yet engagement with the private sector on climate change-related work tends to be limited in scope, and often risk management is not taken fully into consideration by the private sector. Through the GEF, UNDP has been working with private insurers to develop Sudan's very first weather index-based insurance scheme, including institutional and technical capacity for climate observation, forecasting and early warning. The plan is to provide 45,000 farmers and pastoralists in the country with weather index-based insurance through three microcredit flexible loan products to be packaged together with the insurance. Cooperation with global companies is also expanding, for instance IKEA's support for sustainable forestry management and work with Google in assessing changes in global land and forest resources.

### **CONCLUDING COMMENT**

The panel session provided important lessons for the IEO at the launch of its evaluation of UNDP support to countries on climate change adaptation, offering a useful mix of global, national and local experiences. As the panel discussion made clear, many of the challenges in promoting climate change adaptation relate to the slow pace of adoption of innovative new approaches; limited sustainability of innovative measures that are put in place; and the lack of follow-up efforts to scale up and replicate successful mechanisms. There are also issues of competing interests and trade-offs, as well as the need to adapt mechanisms to local contexts and priorities.

# Japan: Evaluation and the SDGs

#### **KEIICHI MURAOKA**

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#### Japan is a natural disaster-prone country; for centuries it has been struggling to reduce natural disaster risk from not only earthquakes and tsunamis but also climate-related disasters like typhoons, floods and landslides.

In its long history of combating natural disasters, Japan has developed various preventive measures to mitigate the damages of natural disasters. The people of Japan are now sharing their knowledge and experiences in the form of development cooperation. In the field of disaster reduction, Japan's cumulative total official development assistance (ODA) from 2005 to 2011 was US\$105.5 million, making Japan the largest donor among member countries of the Development Assistance Committee of the Organisation for Economic Co-operation and Development.

For the purpose of accountability and to gain lessons learned, the ODA Evaluation Division of the Ministry of Foreign Affairs implemented a policy-level evaluation, *Evaluation of Assistance under the Initiative for Disaster Reduction through ODA*<sup>39</sup> in fiscal year (FY) 2013.

To complement the presentations of session 7 on *Evaluation and the Sustainable Development Goals (SDGs): Adapting to a changing climate,* the recommendations of the policy-level evaluation are as follows:

- Mainstream disaster risk reduction (DRR) by compiling disaster statistics and introduce a disaster risk management system so that DRR aspects can be incorporated into all projects
- Strengthen strategic utilization of a soft component in order to increase its impact
- Build partnerships with diverse actors such as local governments, non-governmental organizations, private companies, universities and research institutions
- Formulate new initiatives with a clear message

On a programmatic level, the Embassy of Japan in the Philippines and the National Economic and Development Authority of the Philippines conducted a joint evaluation, *Japan's ODA to the Disaster Risk Reduction and Management Sector in the Philippines*<sup>40</sup> in FY2015.

39 https://www.mofa.go.jp/policy/oda/evaluation/FY2013/pdfs/drr.pdf

<sup>40</sup> https://www.mofa.go.jp/policy/oda/evaluation/FY2015/pdfs/philippines.pdf

The recommendations from the joint evaluation are:

- Make (Japan's) ODA projects DRR-sensitive
- Strengthen complementarity among technical cooperation, loans and grants
- Pursue collaborative projects with other providers of development cooperation

In addition to the above, key lessons learned at the community level gained from projectlevel evaluations of disaster risk reduction and mitigation projects confirm the need for:

- Initiatives by local government
- Involvement of central government
- Better data and information on past damage from natural disasters
- Introduction of information, education and communication activities

In order to enhance the effectiveness and impact of climate adaptation-related interventions on policy, programmes and projects to meet SDG 13 and its targets, it is highly recommended to utilize the results of evaluations of similar interventions.