

Concept Note
International Day for Disaster Risk Reduction

“Nature-based solutions for building resilience, including sustainable agriculture and food systems”

Palais des Nations, Room IX, 10h30 to 11h45
Geneva, Switzerland
Friday, 11 October 2019

Background

The United Nations General Assembly has designated 13 October as International Day for Disaster Risk Reduction (IDDRR) to promote a global culture of disaster risk reduction, including prevention, mitigation and preparedness and adaptation to a changing climate. IDDRR presents an opportunity to acknowledge the efforts and review progress made by stakeholders in reducing disaster and climate risks and building resilience including through nature-based solutions (NbS). By conserving nature and sustainably managing and restoring ecosystems, nature-based solutions form a crucial part of the toolbox for addressing climate change and disaster risks, natural resources management, water, food and nutrition insecurity.

Nature-based solutions¹ can take many forms including:

- restoring and sustainably managing wetlands and rivers to maintain or boost fish stocks and fisheries-based livelihoods, reduce the risk of flooding, and provide recreational and tourism benefits;
- conserving forests to support food and energy security, local incomes, climate change adaptation and mitigation, and biodiversity;
- restoring drylands to strengthen water security, local livelihoods and resilience to climate change impacts;
- developing green infrastructure in urban environments (e.g. green walls, roof-top gardens, street trees, vegetated drainage basins) to improve air quality, temperature control², support wastewater treatment, and reduce stormwater runoff and water pollution as well as improve the quality of life for residents; and,
- using natural coastal infrastructure such as barrier islands, mangrove forests and oyster reefs to protect shorelines and communities from coastal flooding and reduce the impacts of sea-level rise.

Agriculture and food systems in the spotlight!

Agriculture³ is highly sensitive to climate variability and extremes. FAO (2018)⁴ estimated that about 26% of economic damage and loss caused by climate-induced disasters in developing countries is absorbed by agriculture. Relative to other sectors, drought affects agriculture disproportionately, taking up to 80% of all damage and loss, in particular in crop and livestock production (ibid, 2018). The Inter-governmental Panel on Climate Change (IPCC)'s Special Report on Global Warming of 1.5°C revealed that climate-related risks to food security are projected to increase with global warming of 1.5°C and increase further with 2°C. The report suggested that “limiting warming to 1.5°C compared with 2°C is projected to result in smaller net reductions in yields of maize, rice, wheat, and potentially other cereal crops, particularly in sub-Saharan Africa, Southeast Asia, and Central and South America, and in the CO₂-dependent nutritional quality of rice and wheat” (IPCC, 2018)⁵. In addition, reductions in projected food availability are larger at 2°C than at 1.5°C of global warming in the Sahel, southern Africa, the Mediterranean, central Europe, and the Amazon (ibid, 2018).

On the other hand, food systems⁶ also contribute to climate change and responsible for 25-30% of global total greenhouse gas emissions (IPCC, 2019)⁷. Hence, the urgency and the pressing need to accelerate and scale up a global transition to and transformative change for sustainable food and agriculture systems, advocating an integrated

¹ Cohen-Shacham, E., Walters, G., Janzen, C. and Maginnis, S. (eds.) (2016). Nature-based Solutions to address global societal challenges.

² Strategic placement of trees in cities and urban areas can cool the air by up to 8 degrees celsius and reduce air conditioning needs by up to 30 per cent (FAO, 2018 International Day of Forests).

³ Agriculture include crops, livestock, forestry, fisheries and aquaculture.

⁴ FAO (2018). The impact of disasters and crises on agriculture and food security.

⁵ IPCC (2018). Global Warming of 1.5°C. An IPCC special report on the impact of global warming of 1.5°C.

⁶ These include agriculture and land use, storage, transport, packaging, processing, retail and consumption.

⁷ IPCC (2019). A special report on climate change and land.

approach including NbS⁸ to ensure sustainability in crop production, livestock, forestry, fisheries, and aquaculture and in the management and restoration of ecosystem and natural resource base. Emphasis must also be placed to further promote investment in climate and disaster resilience within and across sectors from public and private sector.

In line with the above background, FAO Geneva in collaboration with the United Nations Office for Disaster Risk Reduction (UNDRR), the International Union for the Conservation of Nature (IUCN) and the Permanent Missions of Fiji , Jamaica and Japan will organize an event titled “**Nature-based solutions for building resilience, including sustainable agriculture and food systems**” to mark the 2019 International Day for Disaster Risk Reduction.

Objectives of the event

The event aims to:

- raise awareness of stakeholders on nature-based solutions (NbS) as a means to build resilience for nature and society;
- share best practices and challenges on the implementation of NbS interventions from the ground; and,
- provide a quick overview of progress and effort made in disaster and climate risk reduction from the implementation of the Sendai Framework for DRR and the Paris Agreement on Climate Change for the achievement of the Sustainable Development Goals, with a special emphasis on the role of nature-based solutions in building resilience including sustainable agriculture and food systems.

PROGRAMME

10:30 “Nature-based solutions for building resilience including sustainable agriculture and food systems”

- Opening remarks by Moderator **Ms Carolyn Rodrigues-Birkett**, Director of FAO Geneva
- Remarks by **Mr Ricardo Mena**, Chief of Branch, Supporting and Monitoring Sendai Framework Implementation, UNDRR – **Status/progress of the Sendai Implementation and the linkages with other global processes**
- Address by **Ambassador Junichi Ihara**, Permanent Representative of Japan – **Ecological restoration/ecosystem based DRR: lessons learnt from wetland and rice paddy field management**
- Address by **Ambassador Cheryl Spencer**, Permanent Representative of Jamaica – **Jamaica’s experience on disaster risk reduction initiatives**
- Address by **Mr Anare Leweniqila**, Deputy Permanent Representative, Permanent Mission of Fiji –
- **Stocktaking: where are we? From COP 23 to the UN Climate Summit and the Samoa Pathway Mid Term Review - the importance of food security for small islands developing states in a changing world**
- Remarks by **Dr Sandeep Sengupta**, Global Coordinator, IUCN Climate Change Portfolio – **Nature based solutions for climate change and DRR**

11:20 **Interactive session**

11:45 **Concluding remarks followed by refreshments**

For those who do not have a UN badge, please register at <https://reg.unog.ch/event/31655/>

Contact: **Wirya Khim**, FAO Natural Resources Officer at wirya.khim@fao.org

⁸ NbS interventions in the agriculture sectors include but not limited to forest landscape restoration, mangrove restoration and protection, integrated watershed management, sustainable wetland management, climate-smart agriculture practices such as integrated farming system, agro-forestry, alternative wetting and drying (AWD), soil improvement techniques, rainwater harvesting technique and groundwater management.