

Experts Consultation on Regional Cooperation for Building Resilience to Slow-Onset Disasters including Sand and Dust Storms and Information Management for Cross-border Disasters in Asia and the Pacific

5-6 November 2018

Espinass Hotel, Tehran, Islamic Republic of Iran

Concept Note

I. Regional Cooperation Mechanism for Building Resilience to Slow-Onset Disasters including Sand and Dust Storms in Asia and the Pacific

Background

Slow-onset disasters can be devastating. At their worst, drought, desertification and sand and dust storms can be deadly. Exacerbated by climate change, they come at an enormous cost to our economies and our societies. They are pushing people back into poverty, entrenching inequality and slowing progress towards sustainable development.

These disasters are inherently transboundary. They put pressure on fragile ecosystems and communities right across Asia-Pacific, particularly in the arid areas of Central, West and Southern Asia and North-eastern Asia.

In May 2018, a powerful dust storm swept over the eastern part of Iran, southwestern Afghanistan and north-western Pakistan. At the same time, a toxic salt storm from the Aralkum Desert hit western parts of Uzbekistan and northern Turkmenistan. Sand and dust storms ensued, engulfing the densely-populated parts of western and northern India, colliding with pre-monsoon winds and worsening severe air pollution. Over a thousand people were killed and millions were affected.

These events demonstrated, in graphic terms, the need for regional multi-hazard alert mechanisms and early warning systems for slow-onset disasters. Only deeper partnerships between countries can mitigate risks across borders and enable vulnerable arid regions to adapt. Solutions to improve the region's water management and ease its dust problem are urgently needed.

Coordinated policy responses are already making a difference. In China, an ecological restoration programme between 2001 and 2013 reduced the risk of sand and dust storms by up to 15 per cent in the North China Plain. In Mongolia, customized drought monitoring tools developed with the help of ESCAP's drought monitoring mechanism have increased timely risk-mitigating actions. The Islamic Republic of Iran has established the National Centre for Combating Sand and Dust

Storms, which operates using multi-hazard risk assessments and early warnings for slow-onset disasters.

The ESCAP/APDIM report entitled '*Sand and Dust Storms in Asia and the Pacific: Opportunities for Regional Cooperation and Action*' from 2018 highlights the complexity of slow-onset disasters and gaps in information, cooperation and capacity towards building the resilience to slow-onset disasters especially in South West and Central Asia. While making a case for science-based solutions, it presents multi-hazard risk reduction and resilience-building strategies for slow-onset disasters. The ESCAP/APDIM envisages a regional cooperation mechanism to engage the countries with shared vulnerabilities for risk-informed dialogues supported by joint action plans and operational activities for building the resilience to slow-onset disasters. The regional cooperation mechanism is essentially to address the existing gaps in information and knowledge needed to reinforce adaptation and mitigation policies and interventions. It forms an integral part of the Asia-Pacific Disaster Resilience Network that ESCAP is mandated to put in place for ensuring the coherence of disaster risk reduction and resilience across the 2030 agenda for sustainable development.

A proto-type draft proposal of a regional cooperation mechanism for building resilience to slow-onset disasters, developed by ESCAP/APDIM, was presented and reviewed at a regional expert meeting in Tehran, in January 2018. The Governing Council of APDIM, at its second session in Tehran, also recommended implementation of this mechanism through its work programme activities, starting from 2018-2019 (See [Box 1](#)- the key recommendations on the proto-type). The substantive details of the mechanism were further presented and reviewed by key domain experts during the consultative meeting at the side-line of Asia-Pacific Forum for Sustainable Development (APFSD) in March 2018. It was presented to member states at the side-lines of ESCAP's Commission session in May 2018.

The regional cooperation mechanism, aligned with the Sendai Framework for Disaster Risk Reduction, entails scientific assessment of the risk on a regular basis, facilitates risk governance through a regional platform of stakeholders, promotes investment in resilience by promoting adaptation and mitigation measures, and strengthens preparedness for response through a better understanding of the impacts. The mechanism has three main components:

- **Multi-hazard risk assessment:** A multiple-hazard risk assessment and modelling approach to capture the drivers of sand and dust storms, such as land degradation, poor water management, drought, desertification and climate change and their interactions. This approach will be piloted in South, South-West and Central Asia.
- **Alert system:** Given the strong correlation between drought, land degradation, desertification and sand and dust storms, the tools and techniques being developed under the UN Economic and Social Commission for Asia and the Pacific Regional Drought Mechanism and the World Meteorological Organization's Sand and Dust Storms Warning Advisory and Assessment System will be used to develop an alert system for the semi-arid subregions of South, South-West and Central Asia.
- **Partnerships/network:** Stakeholders involved in combating sand and dust storms will be brought together to form an Asia-Pacific sand and dust storm network. The network will support analytical work, such as periodic risk assessments, provide feedback on the alert system, and develop joint action plans involving both source and impacted countries.

Key objectives of the Expert Consultation

The ESCAP/APDIM has prepared a draft implementation plan to put in place the regional mechanism for building resilience to slow-onset disasters. The draft plan will be presented and shared to be reviewed by experts. The meeting will therefore:

- Define and shape the proto-type of regional cooperation mechanism for its implementation as part of ESCAP/APDIM's work programme activity in the area of information services on innovations for cross-border disasters ; and
- Deliberate on the form and contents of the **multi-hazard risk assessment, alert system and partnership network** based on national, regional and global efforts and countries' related experiences.

The consultation is expected to open new avenues for enhanced collaboration within the region and among the countries and partners. The outcome report of the expert consultation will be brought to the attention of the APDIM Governing Council at its third session in December 2018, for its implementation and report to the Committee on Disaster Risk Reduction at its 6th session.

II. Building the Partnership Networks: Information Management for Cross-Border Disasters

Background

In Asia and the Pacific, the world's most disaster-prone region, many of the disasters are cross-border in nature. The region has the world's two most seismically active fault lines which cross many national frontiers. It also has three major ocean basins, so a cyclone that develops in one of these basins can travel across many countries, causing heavy rainfall and flooding. Countries within the region also share rivers and river basins, so floods also regularly spread across national boundaries. In addition, excessive snowmelt in high mountains, or glacial lake outbursts, can flood many countries downstream. And countries affected by the same climatic events can simultaneously be hit by drought.

Information and knowledge management holds the key for building resilience to cross-border disasters. It is in this context that the ESCAP member states adopted Resolution 71/11 in May 2015 on the establishment of the Asia Pacific Centre for Disaster Information Management (APDIM). As one of ESCAP's knowledge institutions, APDIM is envisioned to promote South-South and regional cooperation, and to bridge the gaps in capacity and access to information and knowledge for disaster risk reduction and resilience. Key experts drawn from ESCAP member states including government officials, academics and practitioners attended the high-level expert consultation on disaster information management tools and approaches from 30 to 31 January 2018 in Tehran. Experts exchanged experiences and reviewed best practices as well as challenges and lessons learnt, to arrive at a set of the key recommendations to be implemented through the programme of work of APDIM in 2018 and beyond. The present workshop is a follow up action on the recommendations made by the high-level expert consultation.

Key objectives

APDIM has developed an Atlas of cross-border disasters in South Asia, South West and Central Asia. The draft this of atlas will be presented at the regional workshop, for review and feedbacks.

The regional workshop aims to bring together the key stakeholders and discuss the modality for building the partnership networks as a part of APDIM's strategy to deliver its work programme related to managing information for cross-border disasters such as earthquakes, tsunamis, floods and cyclones.

The UN Global Geospatial Information Management (UN-GGIM) has put in place the Geospatial Information and Services for Disasters to support the implementation of the SDGs and Sendai Framework. The workshop presents the APDIM as a platform for implementing the UN-GGIM's strategic framework on geospatial information and services for cross-border disasters.

The workshop provides an opportunity to shape APDIM's partnership regional networks involving the centres of excellence and inter-governmental organisations dealing with cross-border disasters as well as UN-GGIM modality for information sharing.

Further, the workshop is expected to open new avenues for enhanced collaboration within the region and among the countries and partners. The outcome report of the workshop will be brought to the attention of the APDIM Governing Council at its third session in December 2018, for its implementation and report to the Committee on Disaster Risk Reduction at its 6th session.

Participants:

Experts/representatives from ESCAP member states and partners including UN agencies, subregional organizations and academia will be invited to the meeting.

Venue:

ESPINAS Hotel, Tehran, Islamic Republic of Iran.

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Box 1 Technical recommendations of the High-Level Expert Consultation on Regional Cooperation for Combating Sand and Dust Storms in Asia and the Pacific, Tehran

The following eight technical recommendations were carefully considered and requested by high-level experts from the member states of the Asia Pacific Disaster Information Management (APDIM) in Tehran, during the two-day consultation (30–31 January 2018) for combating sand and dust storms in Asia and the Pacific. Subsequently, the recommendations were submitted to the APDIM governing council at its second session on 31 January 2018 for further action:

- i. Promote, enhance and facilitate integration of a regional multi-hazard risk assessment and alert system, including a sand and dust storm link with the ESCAP drought mechanism.
- ii. Develop and implement projects in partnership with member states and relevant international organizations to operationalize a data and knowledge network and a sand and dust storm monitoring and warning system.
- iii. Put in place a multiple-stakeholder initiative comprising government agencies, academia, civil society, United Nations bodies (such as UNEP, the World Meteorological Organization and the UNCCD secretariat) and regional economic commissions (such as ESCAP, the United Nations Economic and Social Commission for West Asia, the United Nations Economic Commission for Africa and the United Nations Economic Commission for Europe) and other relevant environmental instruments to promote a triangular South-North-South cooperation modality of knowledge and data sharing and capacity development.
- iv. Develop sand and dust data indicators and an integrated databank for empirical and periodic review, assessment, analysing and reporting.
- v. Encourage research and evidence-based studies at national and regional levels on the root causes, hotspots, accelerating factors and negative impacts of sand and dust storms and take appropriate preventive or mitigating measures.
- vi. Support awareness-raising and enabling campaigns to provide socioeconomic incentives for local communities to adapt their land and water resources management to the framework for sustainable development.
- vii. Identify an appropriate set of standards and indicators to prevent and reduce the impact of sand and dust storms on human health and livelihoods in affected areas.
- viii. Identify and mobilize financial resources and voluntary contributions to support implementation of its activities.

Source: APDIM Governing Council Meeting, 31 January 2018, Tehran

http://www.unescap.org/sites/default/files/Report%20of%20GC2%20of%20APDIM_0.pdf