Biennial Report
2021 - 2022
The Economic and Social Commission for Asia and the Pacific (ESCAP) is the most inclusive intergovernmental platform in the Asia-Pacific region. The Commission promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges. ESCAP is one of the five regional commissions of the United Nations.

The ESCAP secretariat supports inclusive, resilient and sustainable development in the region by generating action-oriented knowledge, and by providing technical assistance and capacity-building services in support of national development objectives, regional agreements and the implementation of the 2030 Agenda for Sustainable Development.

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- Cover: Mostafa World/UNSPLASH, Kaferi canyon in Ilam, Iran
- Page 2, 3: Mostafa World/UNSPLASH, Kaferi canyon in Ilam, Iran
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- Page 6: Imaginima/iStock, Satellites Over World Globe Monitoring Gps Localization
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- Page 9: New Matilda/ Flickr
- Page 10: Zobair Movahed/Middle East Images, After Hamun dried up, all wind raise dust and grit. Hamun Lake is the third largest lake and the largest freshwater lake in Iran. However, it has been more than 20 years that Hamun has completely dried up. Only in some years with a lot of rainfall, a small part of the lake is temporarily supplied with water.
- Page 11: Sadegh Souri, Middle East Images, photo submitted to APDIM Call for Photography 2020
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I am pleased to present APDIM Biennial Report 2021-2022. The report outlines APDIM’s key results and achievements over the past two years mapped against APDIM’s Multi-year Strategic Programme of Work and the Biennium Programme of Work 2021-2022.

In the period under review, APDIM took important steps toward promoting disaster risk knowledge and information management and facilitating regional cooperation in the Asia-Pacific region, including producing in 2021 the first regional risk assessment of the impact of sand and dust storms in Asia and the Pacific. Through a complex consultative process, involving member states, United Nations agencies and the scientific community, APDIM also facilitated the development, and subsequent endorsement by the ESCAP Commission in May 2022, of a Regional Plan of Action on Sand and Dust Storms in Asia and the Pacific. The Plan of Action was largely based on the findings of the Risk Assessment report and as such provided a unique opportunity for countries to agree on a series of evidence-based recommendations.

As this Report details, APDIM efforts in the past biennium also included the development and dissemination of tools and methodologies to enhance disaster risk information management, as well as the provision of technical assistance, emergency, and capacity development support to member States. We also actively engaged in promoting collaboration and knowledge sharing among countries and stakeholders by contributing to several regional and international events.

As we move forward, we recognize the importance of continued collaboration and partnership to achieve our shared vision of building disaster-resilient communities and contributing to sustainable development in Asia and Pacific. We remain committed to working closely with member States and partners to enhance disaster information management and strengthen disaster risk reduction efforts across the region.

We are grateful to our host country, the Islamic Republic of Iran for its commitment to support APDIM’s mission and work. We hope that looking ahead APDIM will be able to achieve its full potential as envisioned in its Multi-year Strategic Programme of Work 2021-2030.

I take this opportunity to also express my sincere gratitude to our Governing Council, all ESCAP member States and our partners for sharing our vision and extending their support to our work. My thanks must also go to APDIM staff in Tehran and our ESCAP colleagues in Bangkok, whose guidance and support are crucial to achieve our mission.
Long Term Outcome 1

Risk Information in Place
Intermediate Outcome 1.1 - Development and sectoral policy makers are equipped to apply and use risk information in sustainable development processes.

Deliverable 1.1.1: Countries in the region are engaged to demonstrate how development planners can use and apply data/analysis in disaster risk reduction integrated planning.

Contributed to the Global Platform for Disaster Risk Reduction in Bali in May 2022. APDIM moderated the Thematic Session on data challenges and solutions for disaster risk management. The panelists, at the Ministerial level, discussed ways to improve data governance in a way that the benefits of the resultant policies, programmes, and investments enable the governments to ensure effective risk reduction measures are in place and to reach the most vulnerable in all scenarios. They also discussed the role of the data community in enhancing the use of disaster risk data across development and humanitarian planning. The outcomes of the thematic session on data challenges and solutions for disaster risk management were included in the Global Platform Co-Chair’s summary and will contribute to the inter-governmental midterm review of the Sendai Framework scheduled for 2023 (see photo, page 16).

Moderated a session on the Regional Learning Platform on Climate Change Adaptation and Resilience on 24 August 2021 at the seventh session of ESCAP Committee on Disaster Risk Reduction (online, 25-27 August 2021).

Organized consultative Meeting on Disaster Information Management with the Government of Türkiye on 6 and 7 December 2022 to identify ways to strengthen risk data governance, impact-based forecasting, monitoring and early warning (see photo, page 16).
Deliverable 1.1.3: UN Country Teams supported in mainstreaming disaster risk information management into country assessments, strategic frameworks and UN operations and plans.

Provided technical support to develop the National Disaster Management and Climate Change Strategy in the Maldives in collaboration with Capacity Development for Disaster Risk Reduction Initiative (CADRI) and other United Nations partners during the Capacity Diagnosis Mission of CADRI to the Maldives in October 2022. APDIM provided technical and substantive support to the National Disaster Management Authority (NDMA) in developing the country’s first National Disaster Management and Climate Change Strategy and shared Iran’s experience in developing its current National Disaster Management Strategy with the National Disaster Management Authority (NDMA) of the Maldives.

Provided technical support for developing the disaster risk reduction and management and environment pillars of the United Nations Sustainable Development Cooperation Framework (UNSDCF) in the Islamic Republic of Iran (2023-2027).

After the major floods in Iran, in response to the request of the government of the Islamic Republic of Iran, APDIM in collaboration with the ICT and Disaster Risk Reduction Division of ESCAP and its partner countries provided the National Disaster Management Organization of the Islamic Republic of Iran (NDMO) with high-resolution satellite images of the areas severely affected by the floods in July and August 2022. The images were produced by cutting-edge satellite technology and helped the pertinent responsible organizations to better locate and assess the impacts and damages of the flood for more effective response operation and recovery programmes.

Contributed to developing Regional Strategy on Disaster Risk Reduction and the Regional Disaster Risk Profile in Central Asia.

Contributed to the meetings of the task team of the WMO/ESCAP Panel on Tropical Cyclones to identify ways to strengthen the Panel’s structure and functions.

Provided input to the ESCAP Asia-Pacific Disaster Report 2021 on sand and dust storms’ impact on human health.

Contributed to developing the Road Map of Implementing Economic Cooperation Organization (ECO) Regional Framework for DRR (2021-2025) and initiated a joint project with ECO on enhancing capacity in ECO member countries to scale up disaster management framework for cascading risks.
Deliverable 1.1.4: Convene risk information fora and events (virtually or in-person) with national, sectoral, and provincial development planners and policy and finance ministries to facilitate the exchange of knowledge and expertise in the region.

Contributed to regional discussion to **identify the key gaps and needs on cascading risks in the ECO region**, the priorities and recommended pathways by ECO member countries **toward developing a regional plan of action** for cascading risks and organized a regional consultation on disaster risk reduction and management for cascading risks and biological hazards on 14 February 2022 with ECO and provided technical support for the **ECO Regional Plan of Action on Cascading Risks and Biological Hazards** (see photo, page 17).
Long Term Outcome 2

Information Capacity and Application
Intermediate Outcome 2.1 - Disaster risk information is understood by policymakers and development planners at national level and regional level as an integral component of development planning across different sectors as necessary to protect development gains.

Deliverable 2.1.1: Development planners are involved with risk reduction experts (such as national/provincial disaster data collection agencies, meteorological agency, flood/drought, climate hazard projections; geological data collection agencies; but also, the national statistics experts with socio-economic data) in the definition of key data and risk information necessary for (risk-informed development) application in development planning.

Engaged with the ESCAP Technical Working Group (TWG) on Disaster-related Statistics and contributed to the Statistics Division Step by Step Guide on the use of QGIS in Producing Urban Hot Spot Maps and A Guide on How to Produce Maps of Populations Exposure to Hazards using QGIS. APDIM also contributed to the Asia-Pacific Stats Café Series on Making Headways in Disaster-Related Statistics.

Contributed to the Second Expert Forum for Producers and Users of Disaster-related Statistics co-organized by the ESCWA, UNDRR, the United Nations Statistics Division, ECE, ESCAP, ECLAC, the Inter-Agency and Expert Group on Disaster-related Statistics, in cooperation with the League of Arab States and other regional and sub-regional partners in Beirut from 6-7 September 2022 (see photo, page 17).

Deliverable 2.1.2: Efficient use and application of risk data by national stakeholders is promoted through in-person, virtual and video tutorials available in local languages.

APDIM translated the Academy Module on ICT for Disaster Risk Management developed by the Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT) of ESCAP into Urdu and Persian. The Academy of ICT Essentials for Government Leaders module series is designed for policymakers and civil servants at the national and local government levels. The module introduces the basic concepts of Disaster Risk Management and provides an overview of how ICT can be leveraged for disaster mitigation, prevention, preparedness, response, and recovery. The use of ICTs in all phases of the disaster risk management cycle presents substantial opportunities to reduce disaster risks, enhance resilience, and facilitate inclusive preparedness and response. The module series aims to develop familiarity with the substantive issues related to ICTD from both a policy and technology perspective. The intention is not to develop a technical ICT manual, rather, its purpose is to provide a good understanding of what the current digital technology is capable of achieving, where technology is headed and what this implies for policymaking. The Persian version has been launched on UN language day with national organization and institutes related to disaster in the Islamic Republic of Iran.
Long Term Outcome 3

Regional Cooperation
Intermediate Outcome 3.1 - Increased understanding at regional level of transboundary impact of hazards.

**Deliverable 3.1.1:** Risk analysis of transboundary hazards is produced prioritizing highest impacting hazards at the social and economic level by producing additional hazard analysis in partnership with relevant regional and international institutions.

Contributed to the Fifteenth Session of the Conference of Parties of the United Nations Convention to Combat Desertification (UNCCD COP 15) in Abidjan from 9 to 20 May 2022, along with other members of the UN Coalition on Combating Sand and Dust Storms.

**Co-led the UN Coalition on Combating Sand and Dust Storms Working Group** on Regional Cooperation and Mediation.

**Deliverable 3.1.2:** Systemic risk analysis at transboundary level is introduced through a discussion at the regional level and at least one subregion/area analysis of systemic risk is developed with a view to foster cooperation to tackle reduction and mitigation options in the most at-risk areas.

Conducted and published the report on **Sand and Dust Storms Risk Assessment in Asia and the Pacific**, the first effort to assess and analyse the risks posed to society and the environment by sand and dust storms in the region, the report was launched at APDIM Side Event at the Seventh Session of ESCAP Committee on Disaster Risk Reduction, 26 August 2021 (see photo, page 18).
Contributed to the **Regional Ministerial Meeting of Environmental Cooperation for a Better Future** organized by the Islamic Republic of Iran in Tehran on 12 July 2022.

Contributed to **Sand and Dust Storms Management and Mitigation in Central Asia** workshop organized by the United Nations Convention to Combat Desertification (UNCCD) and Central Asia Regional Economic Cooperation Program (CAREC) on 19 May 2021, (see photo, page 18).

Intermediate Outcome 3.2 - Transboundary cooperation on disaster risk information management is facilitated and supported.

**Deliverable 3.2.1:** Systemic risk analysis at transboundary level is introduced through a discussion at the regional level and at least one subregion/area analysis of systemic risk is developed with a view to foster cooperation to tackle reduction and mitigation options in the most at-risk areas.

Utilized the findings of the Sand and Dust Storms Risk Assessment report and conducted regional, subregional and national level consultations leading to the development of the **Regional Plan of Action on Sand and Dust Storms in Asia and the Pacific (ESCAP/78/12/Add.1)** which was endorsed by ESCAP member States in the seventy-eighth session of the United Nations Economic and Social Commission in Asia and the Pacific Commission in May 2022. The Regional Plan provides a strategic framework and reference for countries in Asia and the Pacific taking action at the national and regional level. The Regional Plan of Action had been developed based on the outcomes of the Regional Risk Assessment as well as **regional consultation** with the countries of the region (see photo, page 18).

Organized an online discussion in collaboration with the Arab Centre for Climate Change Policies (ACCCP) of the United Nations Economic and Social Commission for Western Asia (ESCWA) on enhancing understanding and expanding inter-regional and regional cooperation on sand and dust storms in the context of the United Nations Coalition on Combating Sand and Dust Storms on 7 July 2021 (see photo, page 18).

Contributed to the United Nations Framework Convention on Climate Change (UNFCCC) pre-COP26 side event on Sand and Dust Storms: A critical climate change adaptation issue on 30 September 2021.

Deliverable 3.2.3: Early Warning cooperation and coordination mechanism on sand and dust storms for the South, South-West, and Central Asia.

Partaken in the WMO SDS-WAS NAMEE Regional Steering Group meeting on 7 July 2021, where the activities of the NAMEE node, cooperation with UN bodies and programmes, establishment of SDS-WAS West Asian regional node and emerging research issues were discussed.

Contributed to the Final Workshop and Programme Formulation on Inter-regional Technical Cooperation Programme (TCP) on Catalysing Investments and Actions to Enhance Resilience Against Sand and Dust Storms in Agriculture, 3-5 October 2022, in Abu Dhabi, (see photo, page 17).
APDIM Partnerships

APDIM is a member of the following groups:

- UN Coalition to Combat Sand and Dust Storms
- Technical Working Group (TWG) on Disaster-related Statistics
- WMO/ESCAP Panel on Tropical Cyclones (PTC)
- Disaster-related Statistics Framework (DRSF)
- International Telecommunication Union (ITU), World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) Focus Group on Artificial Intelligence for Natural Disaster Management (FG-AI4NDM)

To deliver its programme of work, APDIM works with a range of partners to develop and manage disaster risk information and support governments in the region to build capacities and facilitate regional cooperation. We work with Government institutions, United Nations entities, think tanks, regional organizations and networks, the private sector, research centers and academia, including:

- China Meteorological Administration
- Tohoku University
- Barcelona Supercomputing Center (BSC)
- Finnish Meteorological Institute
- Japan Meteorological Agency (JMA)
- Global Earthquake Model
- Environment Department of Environment of the Islamic Republic of Iran (DOE)
- European Institute on Economics
- Spanish Council of Scientific Research in Barcelona
- Risk Nexus Initiative
- ESCAP Divisions (Statistic, IDD, Transport, Energy, Environment)
- World Meteorological Organization (WMO)
- Technical Working Group (TWG) on Disaster-related Statistics
- WMO/ESCAP Panel on Tropical Cyclones (PTC)
- United Nations Convention to Combat Desertification (UNCCD)
- Food and Agriculture Organization of the United Nations (FAO)
- United Nations Environment Management Group
- World Health Organization office in Iran (WHO)
- Planning and Budget Organization of the Islamic Republic of Iran
- Economic Cooperation Organization
- Iran National Cartographic Center
- Iran Meteorological Organization
- United Nations Office for Disaster Risk Reduction
- Japan International Cooperation Agency
- Asian and Pacific Training Centre for Information and Communication Technology for Development
“ESCAP, with regional institutions such as APDIM, contributes to building a shared understanding among the countries in our region about the common threats of hazards. We are also ready to support regional cooperation and facilitate joint actions to reduce the risk and negative impacts of sand and dust storms.” - Ms. Armida Salsiah Alisjahbana Under-Secretary-General of the United Nations and Executive Secretary of ESCAP, at the Launch of the Sand and Dust Storms Risk Assessment in Asia and the Pacific, APDIM Side Event, the Seventh Session of ESCAP Committee on Disaster Risk Reduction, 26 August 2021.

“Implementation of the ECO Framework on DRR, needs continuation of effective interaction with relevant regional and international organizations and development partners, including UN organizations and international/regional bodies inter-alia the UNESCAP, and its relevant regional bodies including APDIM.” - H.E. Mr. Khusrav Noziri, Secretary General of the Economic Cooperation Organization (ECO), at the Launch of the Sand and Dust Storms Risk Assessment in Asia and the Pacific, APDIM Side Event, the Seventh Session of ESCAP Committee on Disaster Risk Reduction, 26 August 2021.

“APDIM report is the first attempt to assess and analyse the risk to the environment and society in the Asia and the Pacific. Importantly, the analysis was broken down into agriculture, energy, environment, aviation, human health, and cities. Using the analysis, the APDIM report outlines the risk and recommends actions to minimise the risks to the environment and people of the Asia and the Pacific.” - Mr. John Leys, Honorary Associate Professor, The Australian National University, Visiting Scientist CSIRO, Honorary Scientific Research Fellow, NSW Department of Planning, Industry and Environment, at the Launch of the Sand and Dust Storms Risk Assessment in Asia and the Pacific, APDIM Side Event, the Seventh Session of ESCAP Committee on Disaster Risk Reduction, 26 August 2021.
APDIM Governance

In accordance with its Statute, APDIM has a Governing Council consisting of a representative designated by the Government of the Islamic Republic of Iran as the host to the Centre and eight representatives nominated by other members and associate members of ESCAP elected by the Commission for a period of three years.

At its seventy-eighth session, the Commission elected the following countries as members of the Governing Council for the 2022-2025 period: Bangladesh; Cambodia; India; Macao, China; Micronesia; Mongolia; Tajikistan; and Türkiye.

Seventh Session of APDIM Governing Council

Delegates from Bangladesh; Cambodia; India; Macao, China; Mongolia; Tajikistan; and Türkiye attended the Seventh Session of the Governing Council as Members. Delegates from the Maldives and Pakistan attended the Session as Observers. The Seventh Session of APDIM Governing Council was hosted by the Government of Türkiye on 7 December 2022.

Sixth Session of APDIM Governing Council

Delegates from Bangladesh, Cambodia, India, the Islamic Republic of Iran, Mongolia, Pakistan and Türkiye attended the Sixth Session of the Governing Council as Members. Delegates from Nepal, Republic of Uzbekistan, Sri Lanka and Tuvalu attended the Session as Observers. The Sixth Session of APDIM Governing Council was convened online and chaired by the Government of Islamic Republic of Iran on 8 February 2021.
APDIM Director chaired the thematic session on data challenges and solutions for disaster risk management at the Seventh Session of the Global Platform for Disaster Risk Reduction 2022 in Bali, organized by the United Nations Office for Disaster Risk Reduction (UNDRR) and hosted by the Government of Indonesia.

High-level Consultative Meeting on Disaster Information Management co-organized by the Government of Türkiye and APDIM, 6 and 7 December 2022, Istanbul.
APDIM Senior Coordinator participated in the International mission of the Capacity for Disaster Reduction Initiative (CADRI) to the Maldives on capacity diagnosis for disaster risk reduction, 17 to 24 October 2022, Maldives.

APDIM contributed to the final workshop of the interregional project Catalysing Investments and Actions to Enhance Resilience Against Sand and Dust Storms in Agriculture, 3-5 October 2022, Abu Dhabi.

APDIM contributed to the Second Expert Forum for Producers and Users of Disaster-related Statistics at ESCWA, 6 - 8 September 2022, Beirut.

Regional Consultation on Disaster Risk Reduction and Management for Cascading Risks and Biological Hazards convened by ECO, ESCAP and APDIM, 14 February 2022, Tehran.
APDIM Director contributed to the Conference on regional approaches to combating sand and dust storms and drought organized by the United Nations Convention to Combat Desertification (UNCCD) and Central Asia Regional Economic Cooperation Program (CAREC) on 21 October 2021.

Launch of the Sand and Dust Storms Risk Assessment in Asia and the Pacific by the Executive Secretary of ESCAP at APDIM Side Event at the Seventh Session of ESCAP Committee on Disaster Risk Reduction, 26 August 2021.

Regional Consultation on Sand and Dust Storms Risk Reduction and Developing Elements for a Regional Plan of Action on Sand and Dust Storms, 6 December 2021.

Online Discussion on Enhancing Understanding and Expanding Inter-regional and Regional Cooperation on Sand and Dust Storms organized by APDIM of ESCAP and ACCCP of ESCWA, 7 July 2021.
Workers are waiting for the steam train in dust storm, China Rail SY at Baiyin, Photo taken on 29 February 2008.
Photo credit: Smoky Shin, Source: Flickr