National Consultation on Integrated Drought Management in India
& Launch of the Regional Drought Risk Management and Mitigation Strategy for South Asia
30th December 2024

Concise Report and Summary of Proceedings

1. **Background and Objective:** The National Consultation on Integrated Drought Management in India was organized by the Country Water Partnership (CWP), India in hybrid mode on December 30, 2024 in New Delhi in view of the Regional Strategy on Drought Risk Management and Mitigation for South Asia prepared by the United Nations Convention to Combat Desertification (UNCCD) and Asian Disaster Preparedness Center (ADPC) which had been launched at the UNCCD COP 16 held in Riyadh, Saudi Arabia on December 10, 2024. The key objective of the National Consultation was to share about the Regional Strategy with the relevant government and non-government stakeholders in India and to identify and deliberate upon the potential areas for the application of the Regional Strategy in the Indian context. *(**See Annex** I for the Background Note)*

2. **Process for identification of relevant stakeholders for the National Consultation:**

The WMO letter dated December 12, 2024 indicated the need for involving country focal points for National Adaptation Fund and UNCCD in the national consultation. In addition to this, it was thought appropriate to engage with premier institutions and experts on drought management across the country. Accordingly, national level experts from Government of India/State Governments like Mahalonbis National Crop Forecasting Centre, Ministry of Agriculture & Farmers Welfare; Indian Institute of Roorkee, Bihar Mausam Sewa Kendra, Planning and Development Department, Government of Bihar; Integrated Centre for Adaptation, DRR & Sustainability (ICARS), and institutions dealing with drought in India were invited and participated in the consultation. The international NGOs working on resilience and climate adaptation such as IUCN, Nature Conservancy and TERI and other national NGOs participated in the discussion. *(**See Annex II & IIA:** List of stakeholders participated in the National Consultation)*

3. **Methodology:** The Consultation was designed keeping in view the deliberative methodology wherein the experts deliberated extensively on the Regional Strategy presented to them in reference to drought related challenges and opportunities in India, especially in regard to forecasting and technology, mitigation and recovery. The presentations were made by the international experts from IDMP and ADPC followed by special address from the National Adaptation Fund, Country Focal Point, Ms Rajshree Ray, I.E.S, Economic Advisor, Ministry of Environment, Forest and Climate Change, Government of India. The Consultation was done through successive technical sessions led eminent domain experts**.** *(**See Annex III:** The Agenda on the Methodology of the Consultation)*

4. **Highlights of the Key Discussion:**

The extensive deliberations on challenges for drought management and mitigation in India are structured based on the three thematic pillars to IDMP, as recommended by the stakeholders present in the Consultation. Accordingly, the following key issues and concerns on drought management in India have been underlined towards the preparation of a country specific Concept Note:

4.1 Pillar-I: Observation, Monitoring, Forecasting, Early Warning,

4.1.1 *Missing Research Policy-Interface as a challenge to be included in the concept note:* Early Warning and Monitoring: Research- Policy interface is required for improving early warning and communication including for heat-wave, flash drought and socio-ecological resilience which needs to be carried out through modeling based studies and pilots. Drought monitoring and early warning systems are crucial for the South Asian region due to the diverse climate and dependence on the agriculture.

4.1.2 *Challenges on data gaps (data availability, utilization and dissemination) as one of the issues to be included in the concept note*: The datasets required for monitoring include Meteorological Data, Remote Sensing data, Hydrological Data including reservoir levels and agricultural data. Despite the availability of information from various sources, there is still data gap particularly in the case of hydrological data at regular interval and also at granular spatial scale, which pose a greater challenge. Drought early warning and forecasting systems still required to be fully established and operationalized. There is a need to enhance the capacity of stakeholders in understanding and utilizing the already available drought information. Dissemination of drought related information to various stakeholders effectively also remains a challenge.

4.1.3 *Satellite based data Drought EWS is an important area*: Based on the observed data, forecasts, and various drought indices, early warning systems can be developed to alert stakeholders about potential drought situations. These systems may involve timely alerts and notifications; Near-real time dissemination of information; Preparation of drought mitigation plans; Collaborative research for improving the forecast and early warning; Integrated Web portal for Information dissemination.

4.1.4 *Absence of Networks is an important issue:* There is a need for establishment of a Network on WEF Nexus under the ADRES (Adaptation, Resilience and Sustainability Network) under ICARS.

4.1.5 *Capacity Building and Local Plans needs to be supported:* Capacity Building and support for sub-national and district level capacity building programs on adaptation and DRR plans focused on drought and nature based solutions is needed.

4.1.6 *Modernization* of existing networks and integration of local knowledge into EWS should be a focus area for implementation of EWS.

4.1.7 *Prioritization:* Development of drought indicators, early impact based fore-casting systems, water resources management and watershed management, development of an information dissemination platform with a feedback mechanism to communicate the forecast and early warning to the vulnerable community.

4.2 Pillar 2: Scientific Research, Risk and Impact Assessment

4.2.1 *Need for research on loss and damage assessment:* There is a need for undertaking integrated research for loss and damage assessment methodologies including special

focus on non-economic and secondary and higher order impacts, including environmental impacts.

4.2.2 *Support for establishment of a network:* Enabling a network of researchers and institutions on WEF Nexus with focus on drought risk resilience including in cold desert of Ladakh is required in India.

4.2.3 *Need for a regional data repository:* Establish a regional drought data repository for high-quality data storage and risk assessment.

4.2.4 Need for conducting sector-specific needs assessments and pilot testing of mitigation techniques.

4.2.5 Need for Risk and Impact assessment on the Wildlife-flora and fauna and the protected areas.

4.2.6 Need for assessing impact of droughts on conservation of natural ecosystems for e.g wetlands, forests, grasslands and healthy soils on drought risk management.

4.3 Pillar 3: Governance, Risk mitigation, preparedness and response/capacity development/partnerships

4.3.1 *Need for extensive sector specific studies for complementing risk resilience measures:* Studies on sectoral policy analysis and mapping and assessment of tools and strategies across the key sectors are required. Further, development for promotion of risk resilience with reference to drought and concerned issues of adaptation to climate change are also required to be understood in a better way.

4.3.2 *Platform for experiential learning on drought risk governance:* There is a need for developing on annual basis an exercise/platform based report on "Disaster Risk, resilience and Recovery" to capture changing landscape of risk, contributors and the efforts already made to reduce risk on an annual basis.

4.3.3 Need for gender-sensitive and age-inclusive guidelines for drought management.

4.3.4 *Need for the establishment of Farmer Field Schools and youth as the focus:* Conducting climate-smart agricultural training and establishing Farmer Field Schools for capacity building is required to improve risk mitigation and drought management. There is also a need to focus on youth-centered and local knowledge-based training modules.

4.3.5 *Increased capacity and inclusion of public sector agencies:* More public sector agencies are required to be part of the drought risk mitigation and management strategy and their capacity is required to be built.

4.3.6 Development of a Regional Policy for drought risk management may be considered

5. Potential ideas for the Concept Note on partnerships and future research studies:

5.1 *Technical Working Groups for enhancing regional and national partnerships:* Foster regional and national partnerships by creating technical working groups and facilitating annual dialogues on drought issues. Enhance regional cooperation through shared initiatives such as establishment of the South Asia Drought Monitoring System

5.2 *Focus on Robust financing framework for drought* : Blended finance models and instruments like concessionality, concessional loan , equity debt guarantees etc. are required for covering the drought prone regions across India. For example in Karnataka , a kind of blended finance model for financing water saving technologies including powered irrigation pumps etc.

5.3 *Mainstreaming of Nature Based Solutions for drought management:* Designing Nature based Solutions based on traditional knowledge of communities and science based knowledge to reduce structural vulnerability to drought both at the ecosystem and community level may be considered. Thus the national and sub-national drought management plans may need to be reviewed to ensure that they incorporate Nature-based Solutions, including SLM practices that reduce the frequency and severity of drought.

5.4 *Potential partnerships:* IUCN is developing a Dry-lands/Grasslands conservation/restoration initiative for South Asia and the Sustainable/Regenerative Agriculture initiative that may be considered to identify opportunities for partnerships and collaboration.

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