



Image: Aftermath of Typhoon Ketsana (Ondoy) in Metro Manila, Philippines | Credit: ADB

Webinar Series: Challenges, Lessons, and Innovations for Strengthening Integrated Flood Risk Management

Five (5) webinars engaged with flood risk managers, decision makers, technical experts, and ADB project officers for an exchange of ideas and experiences directed towards strengthening the practices of flood risk management across Asia and the Pacific. Eleven (11) presenters and speakers led the webinars. An average of 179 participants attended each webinar, with 67% from developing member countries of ADB.

Event Details

Webinar Series on ‘Challenges, Lessons, and Innovations for Strengthening Integrated Flood Risk Management (IFRM)’

Five (5) weekly webinars from 9 March to 5 April 2022 | Virtual

Session 1 | A country-scale view on IFRM and applications of global datasets (9 March)

- [Recording](#)
- [Presentation](#)

Session 2 | Application of an IFRM approach at a River Basin Level (15 March)

- [Recording](#)
- [Presentation](#)

Session 3 | Coastal Flood Risk Assessment | Lessons from coastal flood risk analysis in Philippines and Pakistan (22 March)

- [Recording](#)
- [Presentation](#)

Session 4 | Economic analysis for flood risk management project (30 March)

- [Recording](#)
- [Presentation](#)

Session 5 | Outlook for IFRM and ways forward. Reflections on state of the flood risk management sector in Asia and development outlook (5 April)

- [Recording](#)
- [Presentation](#)

For more details, refer to the [Agenda](#).

Strengthening Integrated Flood Risk Management in Asia-Pacific

The webinar series was an initiative of TA 9634-REG on [Strengthening Integrated Flood Risk Management](#) supported by the Urban Climate Change Resilience Trust Fund (UCCRTF).

Covering different types of flooding (rivers, coastal, tidal, surface water, groundwater, dam breach, glacial lake outburst flooding), the TA assisted 13 projects in 7 countries (Indonesia, Myanmar, Nepal, Pakistan, Philippines, and Viet Nam) and provided a Practical Guide to IFRM, technical guidance notes, and sector assessment. ADB implements the TA in collaboration with Landell Mills and JBA Consulting.



The webinars were conducted in a series of five 90-minute sessions held over 5 weeks starting from 9 March 2022. They were made open to all who registered. The target audience were professionals from a diversity of relevant fields involved in flood risk management including engineering, master planning, investment planning, urban management, climate science, numerical modelling, and flood forecasting and warning. ADB project officers also attended and contributed to discussions. Presentations were in English with simultaneous translation available for Vietnamese and Bahasa.

Session 1 “A country-scale view on IFRM and applications of global datasets” provided a comparative assessment of flood risk issues across targeted developing member countries (DMCs), and sharing of the results from the development and application of National Integrated Risk Analytics or NIRA based on global data sets to assess flood impacts in Nepal, Indonesia, and Pakistan, as well as the lessons learned from the capacity building activities on NIRA application in Indonesia. NIRA is an online mapping technology which visualises the data produced and allows a user to explore the potential costs and benefits of different combinations of flood risk management measures such as embankments, nature-based solutions, and flood warning systems.



Image: Workshop on implementing IFRM in developing member countries under TA 9634 (February 2020) | Credit: UCCRTF

Session 2 “Application of an IFRM approach at a River Basin Level” discussed practical guidance for IFRM planning around key topics on: (i) Defining flood risk as hazard, exposure, and vulnerability; (ii) Addressing the drivers of flood risk such as population pressure, urban development, and climate change in developing a flood risk management plan; (iii) Issues for project design including safeguards.

Session 3 “Coastal Flood Risk Assessment: Lessons from coastal flood risk analysis in Philippines and Pakistan” highlighted the key lessons learned from the coastal flood risk assessment in the said countries an relevant activities including capacity building in coastal flood risk planning and management; coastal data management and the analysis to demonstrate the benefits of mangroves and other Nature Based Solutions (NBS).

Session 4 “Economic analysis for flood risk management project: The role of Insurance and reinsurance for in flood risk management” highlighted the practical challenges and opportunities on economics of IFRM, the lessons learned for insurance from recent flood events worldwide, and the next steps for the DMCs in light of these.

Session 5 “Outlook for IFRM and ways forward” provided a summary of the reflections on state of the flood risk management sector in Asia and development outlook.

“We have to consider who benefits and who have the negative impacts, including environment. The environment is also a stakeholder.”

Geoffrey Wilson, Senior Water Resources Specialist and Project Officer of [TA 9634](#)

Key takeaways

- **IFRM must be addressed at the holistic systems level using a risk-informed decision approach.** IFRM covers both structural and non-structural measures and manages the residual risk, through strong governance and prudent financing. As we enter the recovery phase of COVID-19, we need to continue promoting investment in water infrastructure and disaster risk reduction and preparedness.
- **In considering goals for flood risk management, one needs to consider the complexities of the situation.** Real world situations involve many stakeholders with different points of view that will likely lead to trade-offs. Flood risk management needs to be integrated with the broader vision and priorities of the given region. Decisions made for flood risk management, such as the construction of a river levee, or the allocation of land for floodplain storage, have long term impacts for the development of an area and are typically not reversible.
- **IFRM requires a basin and catchment level consideration of issues, applying the source-pathway-receptor model to considering management measures.** As such, upstream terrestrial protection and NBS are strongly recommended. Of the studied countries, Bangladesh and Philippines have made strong efforts at applying NBS to fluvial (river) flood risk management.
- **Data improvement and sharing needs to be prioritized.** Recognizing that there are a wide number of stakeholders involving in shaping the future of both cities and countryside, data should not just be for technical analysis but should be widely shared in the form of water levels,

flood mapping, flood impact forecasts, and models that can be used for testing growth scenarios. For IFRM to happen, this must mean integration into the planning of other disciplines, agricultural practice and urban development.

- **IFRM should not be ignored within wider water resources management.** Integrated Water Resources Management in practice seems to undervalue the flood risk part of the balance. Although floods are rarer in nature, considering them more fully in IWRM measures will ensure sustainability and improved climate resilience.
- **Insurance can significantly reduce the burden of losses on governments and taxpayers following a flood.** There is appetite to offer flood insurance among re/insurers but there is a need to narrow the insurance gap if countries are to maximize the benefit of insurance. Governments, insurers and homeowners all have a role to play.

Attendees’ feedback:

“It was indeed a great event; talking and listening to so many high officials and experts in water governance.”

“I have been able to gather much by way of interactive process during this webinar and would look forward to learning and contributing more in future.”

Further Information

Geoffrey Wilson, Senior Water Resources Specialist, SDCC, ADB | gwilson@adb.org
 Virinder Sharma, Principal Urban Development Specialist, SDCC, ADB | vsharma@adb.org
 Okju Jeong, Urban Climate Change Resilience Specialist (Consultant), ADB UCCRTF | ojeong.consultant@adb.org

This Event Snapshot is published under [TA 9217](#) Knowledge Management and Resilience Measurement for Urban Climate Change Resilience (UCCRTF Subproject 2) | [Subscribe](#) to UCCRTF’s bi-monthly newsletter | Access past issues of UCCRTF newsletter [HERE](#).

UCCRTF Financing Partners

