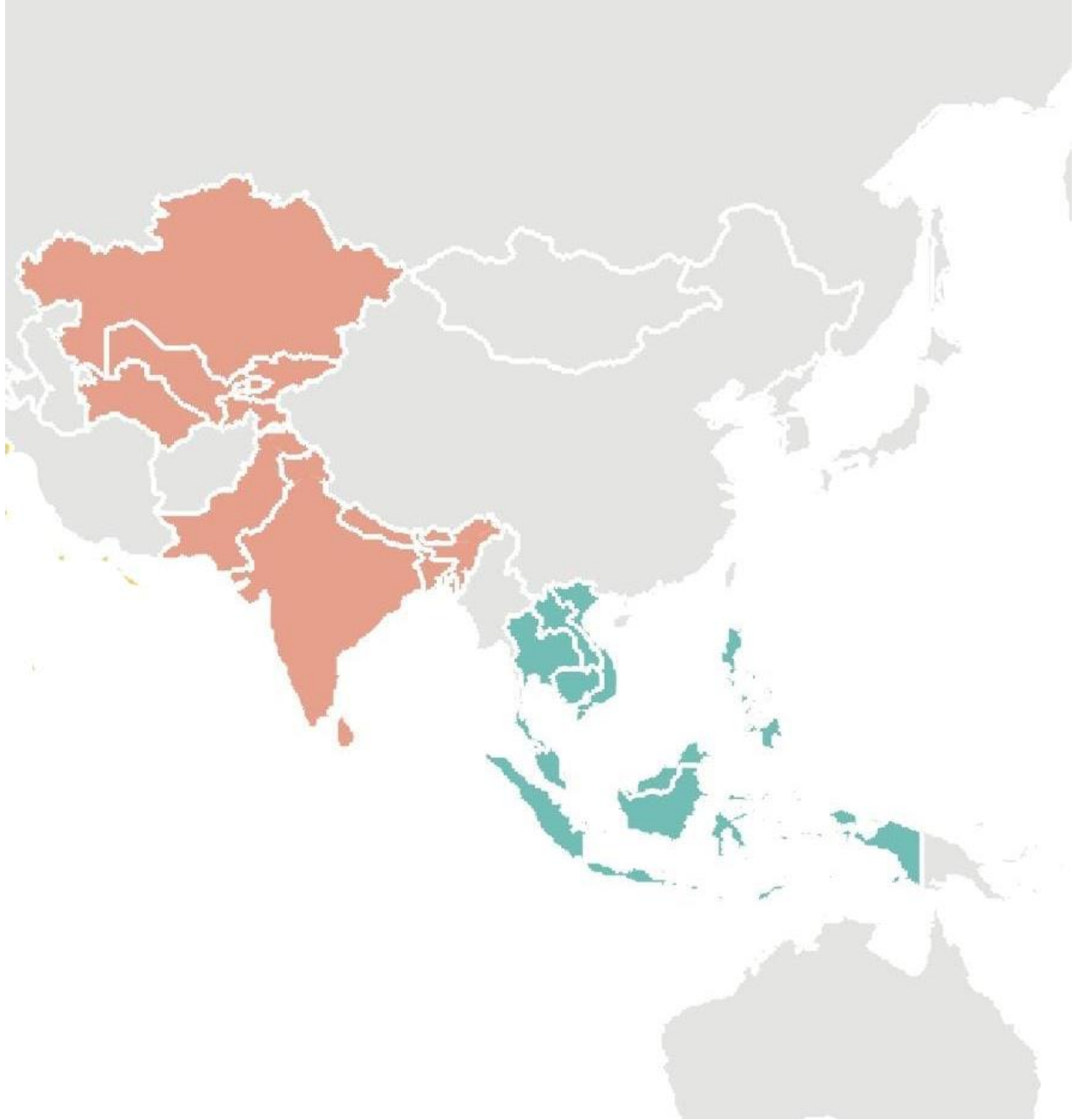


## Cap-Net Roadmap 2025-2030 - Asia



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## Regional Task Team



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## 1. Setting the stage

Cap-Net networks in Asia include nations in Central, South, and Southeast Asia; with broad diversity in terms of land use and rainfall. Challenges include water scarcity and mismanagement. For instance, India (18% global population, 4% water) faces severe scarcity. Central Asia battles with drought; governance issue impacts Pakistan's water security. Philippines faces water stress despite high rainfall. Indonesia manages high water demand amidst biodiversity, and Malaysia grapples with river pollution despite abundant rainfall.

### 1.1 Key Regional water management challenges

#### *Impacts of Climate Change*

Vulnerable countries in the region, such as Bangladesh, Sri Lanka, Myanmar, India, and Pakistan, face climate change risks like floods, cyclones, droughts, and urban flooding. Bangladesh's rice production suffers from droughts, while rising sea levels and cyclones threaten India, Sri Lanka, and the Philippines. Bhutan and Nepal witness landscape and water resource changes due to glacial retreat.

#### *Rise in river pollution*

Asia faces critical river pollution from industrial discharge, untreated sewage, and soil erosion. Sri Lanka faces degradation due to its dense population, while Myanmar deals with contamination from mining. India and Bangladesh confront wastewater discharges, and Malaysia faces frequent pollution from untreated industrial effluent.

#### *Ecosystem Degradation & biodiversity loss*

Due to pollution, habitat destruction, overfishing, and climate change, the region is facing critical ecosystem degradation and loss of aquatic biodiversity.

#### *Groundwater Depletion*

The region faces severe groundwater depletion from excessive extraction for agriculture, industry, and urban use, causing land subsidence and saltwater intrusion.

### 1.2 Link to global trends

Following the global trends, countries in Asia are implementing diverse climate-change adaptation measures. Innovative agricultural practices are adopted in Indonesia, India, and Malaysia. 'Source to sea' approaches protect freshwater ecosystems, notably in Indonesia, the Philippines, and Bangladesh. Ramsar sites and mangrove expansion safeguard wetlands in India. Groundwater management

practices are recognized in Sri Lanka, Indonesia, and Pakistan. Water reuse strategies address freshwater limitations in Indonesia and India. Integrated water resource management is crucial for climate resilience and pollution control in countries like the Philippines, Myanmar, India, Malaysia, and Sri Lanka. Cooperation and treaties address transboundary water issues in Central Asia, Pakistan, Bangladesh, and India.

## 2. The Reality on the Ground

The region faces a range of issues, certain ones loom larger in South Asia, posing a significant challenge to overcome.

### 2.1 Capacity needs and gaps based on key thematic area

#### *Water and Climate*

The region is facing a significant capacity gap in climate adaptation and sustainable water resource management. Bangladesh's agriculture-focused economy, causing deforestation and monoculture, worsening its vulnerability to floods. Myanmar is facing livelihood and water security challenges and requires better water resource management. India lacks better climate studies, water data, and governance for sustainable water management and needs education and training in climate vulnerabilities and sustainable water management. Thus, capacity-building, research, and improved data collection and accessibility are crucial. Collaborative efforts between government, stakeholders, and experts are essential for holistic water resource policies.

#### *Water Supply and Sanitation*

Millions in the region lack access to safe water and sanitation, particularly in dry seasons. Myanmar emphasizes identifying reliable urban water sources. Inadequate river basin data hampers planning in the Philippines, while Pakistan lacks understanding of water management and technology data. Wastewater treatment and waste management issues sustain contamination due to cultural practices. The region lacks climate-proofing and reliable local water data. The region requires financial stability, skilled training, and innovation for water and sanitation. Public awareness and education are vital for conservation and behavioral shifts in India and Pakistan. Malaysia must boost WASH capacity in industrial areas and address the issue of high non-revenue water. Sustainable city growth hinges on water reuse, recycling, and comprehensive urban planning.

#### *Disaster risk reduction (Water related hazards)*

In densely populated regions like Bangladesh, Pakistan, and coastal India, limited resources exacerbate climate vulnerability. Research gaps persist in dam breaks, landslides, and floods in hilly areas, as well as flash floods, sea-level rise, and saline intrusion. Myanmar, India, and Bangladesh lack early warning systems and sea level monitoring. Community-centered disaster preparedness approaches are lacking. Urgent comprehensive studies are needed. Mitigation strategies must integrate community and ecosystem-based approaches. Establishing communication networks, early warnings, and sea level monitoring is crucial. Balancing pre- and post-disaster measures, emphasizing prevention, is vital. Accurate data and zoning are crucial for flood risk assessment. Central Asia, the

Philippines, and Pakistan need improved water management and infrastructure. Transboundary water management requires regional cooperation in Central Asia. Water-Energy-Food Nexus modernization is crucial in Central Asia and Myanmar. Bangladesh, Malaysia, and Indonesia aim to enhance river pollution prevention. Increased investments are vital for proactive risk reduction.

## **2.2 Capacity needs and gaps based on cross-cutting areas**

### ***Public Outreach Programmes – application of Citizen Science, effective communication***

Effective water governance requires collaboration and knowledge-sharing between local authorities and residents. Engaging citizens in data collection and decision-making is crucial for building capacity. Outreach programs can educate the public on climate impacts, water-saving techniques, contamination risks, river pollution, ending open defecation, and preparing for water-related emergencies.

### ***Stakeholder Engagement – including MSP, collaborating with politicians***

Inclusive stakeholder involvement is crucial for effective water management decisions and skill development. Engaging policymakers can influence the creation of policies addressing climate change's impact on water management.

### ***Gender Equality and social inclusion***

Women's empowerment in water management through capacity-building for climate adaptation is crucial as they play a major role in water use and agriculture. Inclusive assessments, considering gender and vulnerabilities in Disaster Risk Reduction is much needed.

### ***Application of Digital Tools such as AI, IoT, etc.***

Capacity-building includes training professionals in digital tools, fostering collaboration between water and technology experts, and integrating digital solutions into water management.

### ***Harnessing the effective role of social media***

Social media can be used to raise awareness of water issues, engage the public in supporting initiatives, and promote behavioral changes. It can provide real-time disaster updates.

### ***Water Policy and Legislation***

Policy discussions with diverse groups, including communities, consumers, non-water sector organizations, decision-makers, and politicians can shape future water policies and address gaps in legislation.

### 3 Capacity development as an accelerator for change

Capacity building is essential to empower and collaborate for effective water resource management and sustainability.

#### 3.1 Creating opportunities that address identified capacity gaps by responding to the challenges ahead

Virtual campuses and webinars offer convenient learning for various stakeholders. However, rural areas face challenges due to limited digital access. Equally important is on-site visit and exposure to enhance practical understanding in the application of IWRM. The Philippines, Sri Lanka, Malaysia, and India prioritize practical education in water management using combined methods through internships, awareness campaigns, lectures, forums, and online training for skill development such as GIS.

#### 3.2 Individual Level (Capacity)

- a) **Peer-to-Peer Exchanges:** Cross-border communication enables sharing experiences, challenges, and best practices. To enhance collaboration, communication channels should be improved between networks by setting clear agendas for regular meetings among networking countries.
- b) **On-the-Job Training:** It offers hands-on experience, applying theoretical knowledge in real-world water and sanitation scenarios.
- c) **Career Development:** Capacity development should support career growth by offering skill enhancement, certifications, and professional development plans.

#### 3.3 Institutional Level (Performance)

##### *Enabling Environment*

An enabling environment to promote policies, research, incentives, and smooth transition of funds should be established to support effective water management. Governments like those in the Philippines and Sri Lanka can provide financial backing for innovation, while Central Asia could focus on agricultural policies to promote water-saving technologies. Pakistan faces challenges in capacity building due to economic and political instability. There is a crucial need to enhance capacity at individual, community, and local levels, especially in resource monitoring and management. Addressing communication gaps is crucial. Holding an annual in-person network managers' meeting, ideally during World Water Week, could greatly enhance interaction between the Cap-Net secretariat team, partners, and the networks.

##### *Sustained Knowledge Management*

Creating a repository for best practices, case studies, and lessons learned is crucial for knowledge retention. Regular meetings and conferences can facilitate this. Effective Monitoring, Evaluation, and Learning (MEL) also ensures projects meet local needs, enhancing effectiveness. To address the digital divide in rural areas, diverse reporting methods should be used for MEL, going beyond reliance on platforms like Google Forms for inclusivity. The Philippines suggests a centralized online platform to store data from relevant agencies, both domestically and with neighboring countries. A regional newsletter can effectively share news from all affiliated networks in Asia.

### ***Secured Financial Resources and Partnership***

Financial security is crucial for Cap-Net Networks. Secretariats face difficulties without sufficient support and guaranteed funding. Additionally, as practiced previously, subcontracts between Cap-Net and activity partners can be allowed in the case of multinational fund transfer but currently is prohibited in many countries due to various rules and regulations (such as FCRA in the case of India). Since Cap-Net support is limited and has been dwindling over the years, networks should consider alternative sources of funding. This includes secure funding through government grants, corporate partnerships, and online paid training. They should also consider income-generating activities while leveraging pro bono expertise from skilled professionals.

### **3.4 Current and future key partners and level of engagement**

Government agencies for expertise and policy alignment, universities for academic input, schools for awareness, private sector for funding and technology, global organizations for best practices, and community groups for grassroots efforts should be involved. Some countries are still identifying potential partners. These partners help in co-organizing forum, seminars, and conferences and can support various kinds of activities. Various current and proposed future partners are provided in Annexure (2).

### **3.5 Co-development / co-curation of capacity development strategies and products (local ownership)**

Involving local stakeholders such as government agencies, academia, civil society, and private sector representatives in water management builds effective capacity development. In the case of transboundary water bodies, the local ownership falls on the states, and among the involved actors should be ministries such as Agriculture, Water and Natural Resources, Environment and Climate Change, Foreign Affairs ministries, etc.

Bangladesh involves local NGOs and officials. Sri Lanka plans IWRM courses for secondary schools. Malaysia partners with GEC and ASPEC for public outreach. The Philippines takes a collaborative approach to resilient water management, while Central Asia and India engage diverse stakeholders.

### **3.6 Support required to implement strategies**

Various forms of support are needed for implementing and sustaining strategies for capacity development.



Adequate funding is a crucial to ensure the availability of resources for training, workshops, and office support. Insufficient and delayed funding from Cap-Net will hinder the networks' effort. Additionally, inadequate communication among the network exacerbated the challenges.

Involving local volunteers, academia, and sectors may aid capacity building with limited resources. Champions at various levels, including advocates and specialists, identify future leaders and provide technical expertise shall be the focus. Political will and support from policymakers and government agencies are crucial for turning capacity building into policies, enabling effective water management in Pakistan. Collaborations with NGOs, academia, international organizations, and the private sector, along with community engagement will ensure the availability of valuable resources, expertise, and local alignment.

## 4. Networks in a changing world

Networks play a critical role in overcoming barriers and creating opportunities for sustainable water management by interconnecting organizations, building trust, instilling support and encouragement, and staying updated with the latest information and trends.

### 4.1 Barriers and solutions that influence networks' positioning, relevance, and sustainability as key capacity development actors

#### *Government's recognition and moral support*

- a) **Barriers:** Unstable government with varied priorities, can hinder the effectiveness of capacity building activities. Political unrest hampers research in Pakistan, affecting resources and support. In Bangladesh, the government prioritizes economic development over IWRM and water-related issues.
- b) **Solutions:** Networks successfully secure sustained support and recognition for their work by fostering ties with the government and showcasing tangible outcomes. Government recognition enhances credibility, facilitates funding, and allows networks to impact policy decisions. For instance, governments, in cooperation with networks, organize various cross-country meetings on transboundary water resources management in the Central Asia region.

#### *Linkages with all UN entities related to water*

- a) **Barriers:** Establishing and maintaining strong connections with all UN entities related to water can be a complex issue due to diverse mandates and administrative processes.
- b) **Solutions:** Networks can expand connections through existing UN relationships, sharing case studies and common goals for forging stronger partnerships. In Pakistan, a formal linkage is needed between Cap-Net Pakistan (Karachi) and Pakistan Water Partnership (Islamabad). Networks can establish clear communication protocols, facilitate regular virtual meetings, and designate focal points. For example, collaborating with the UN for webinars in areas like WASH, water and climate, and disaster risk reduction. Networks may organize virtual events, for example, SaciWATER's organized **UN 2023 Water Conference Virtual Side Event, "Climate Change,**

## Wetlands and Women: Actions Towards Creating Resilient Communities and Ecosystems” in collaboration with GWP South Asia.

### *Corporate sectors as partners and financiers*

- a) **Barriers:** Engaging with the corporate sector can be challenging due to conflicting profit motives and sustainability goals, often resulting in superficial efforts and eyewash exercises.
- b) **Solutions:** Networks can align with CSR agenda and demonstrate the business value of sustainable water management. Collaborative projects with social and environmental impacts can attract corporate partnerships and financing. SaciWATERs offered training for communities in WASH/arsenic issues through CSR funding.

## 4.2 Barriers and Solutions to Partnerships and Collaborative Programmes

### *Between networks within the Cap-Net family*

- a) **Barriers:** Collaboration among various Cap-Net networks encounters challenges due to differences in geographical focus, thematic areas, and resource availability. Organizational culture and objectives hinder coordinating strategies. Communication barriers and time zones further challenge collaboration. Online meetings limit effective communication.
- b) **Solutions:** Developing a shared platform for knowledge exchange, joint projects, resource-sharing, and success stories across networks can enhance collaboration and mutual learning among Cap-Net networks. Cap-Net should focus on enhancing communication through online meetings and regional conferences. A biennial conference for the Asia regional networks will be a great opportunity to learn from each other the good practices in managing water.

### *UNDP Country Offices*

- a) **Barriers:** The consideration of priorities and coordination challenges can hinder effective partnerships between networks and UNDP country offices.
- b) **Solutions:** Networks can proactively engage with UNDP country offices by aligning their initiatives with the country's development goals and offering expertise and resources for joint projects.

### *GWP Regions*

- a) **Barriers:** GWP regions may have divergent approaches to water management, impacting coordination and collaboration.
- b) **Solutions:** Networks can facilitate regular communication and information exchange between GWP regions, ensuring consistency in goals and approaches across regions. However, it is advisable not to mandate exclusive partnerships with single agencies, as all other partners can also provide expertise in various diverse fields.

### *Country Water Partnerships*

- a) **Barriers:** Country Water Partnerships may face difficulties in engaging various stakeholders with conflicting priorities.
- b) **Solutions:** Networks can act as intermediaries, facilitating dialogue and consensus-building among diverse stakeholders within Country Water Partnerships.

### *Water-Related (and Environmental) NGOs/CSOs Within the Country*

- a) **Barriers:** Competition for resources and differing agendas among NGOs/CSOs can hinder collaboration.
- b) **Solutions:** Fostering partnerships with NGOs by identifying common goals, pooling resources, and promoting a coordinated approach to address water management challenges. MyanCapDNet aims to collaborate with organizations like Fed.MES to engage communities in water management.

## 5. Strategies for greater impact

### 5.1 Linkages to Global and Regional Initiatives

Nations are collaborating collaborate on global policy measures for holistic water sector growth, addressing complex challenges in water management.

- a) **UNDP Water Offer:** UNDP addresses water challenges for Sustainable Development Goals, including nature, climate, transboundary efforts, energy, and disaster risk reduction. Networks align with UNDP strategies, leveraging experiences to achieve sustainable water management goals.
- b) **Global Initiatives:** Engage in UN SDGs, Global Water Partnership, RAMSAR, GOBI, and special events. Participation promotes best practices in water management, conservation, and biodiversity.
- c) **Regional Initiatives:** South and Southeast Asia focus on transboundary cooperation, water improvement, groundwater restoration, and wetland conservation. Efforts enhance cross-border cooperation and harmonize water policies.

- d) **National Efforts:** Nations formulate policies and collaborate to address water crises in line with development priorities.
- e) **SDG 6 Monitoring:** Networking countries align policies with SDG6, supporting objectives through monitoring, reporting, and national strategy implementation. Collaboration with national focal points strengthens monitoring initiatives.

## 5.2 Adaptive Long-term Approaches

- a) **Beyond a single project:** Networks should go beyond a single project's scope and timeline, showcasing various initiatives across a longer time frame. Capacity building should adopt a comprehensive approach, focusing on projects with multiple aspects to have a wider impact instead of having a single focus. For example, projects on climate change's impact on water resources should include biodiversity, resilience, and data-driven impact analysis. They should emphasize continuous learning and feedback to meet local needs effectively in the long run.
- b) **Systemic approaches (across all water-related sectors):** Capacity development should take a holistic view of the water cycle, offering sustainable solutions. Integrated water resource management should cover green water, surface water, groundwater, nature-based solutions, and dependent biodiversity.

## 5.3 Innovation

- a) **Exploring new tools for capacity development delivery:** Technology in training improves engagement, accessibility, and cost-effectiveness. Virtual platforms, workshops, online courses, and knowledge development tools like toolkits and e-learning resources are effective means. Social media and YouTube can serve as efficient dissemination channels.
- b) **Cooperating with institutions of higher learning on R&D and Commercialization:** Collaboration with universities and research institutions is crucial for advancing innovative and cost-effective water management solutions.

## 5.4 Securing long-term funding

The various stages of capacity building, including implementation, monitoring, evaluation, and the dissemination of learning, require ample funds. Securing diverse funding sources is crucial for capacity building.

- a) **Private Sector:** The private sector as partners and investors offers a vital avenue for sustainable funding. Companies can invest in water initiatives aligned with their corporate social responsibility, such as providing sustainable WASH solutions in rural areas.
- b) **Non-traditional Donors:** Philanthropic organizations, individual donors, carbon and green credit market players, and impact investors broaden funding sources and enhance financial support options.

- c) **Government (including in-kind assistance):** Government collaboration secures in-kind assistance, policy support, and financial contributions.
- d) **Public-private partnerships (PPPs) for water infrastructure projects:** Not only generates funding but also leverages private sector expertise and resources for sustainable development.
- e) **Water Stewardship:** Encouraging water stewardship initiatives. These initiatives entail businesses collaborating to address water issues, supplementing government efforts, and offering extra financing options playing a leading role in addressing the global water crisis by collectively pooling capital for water-related investments.
- f) **Self-financed courses for professionals:** Offering some of the expertise or services commercially, such as paid/self-financed training, can be a source of financial support for the networks.

As discussed, the network can enhance collaboration with organizations like UNDP, GWP, and other regional bodies by aligning with their water management and climate resilience strategies. To increase effectiveness, these networking partners should consider the following Key Performance Indicators (KPIs):

a) **Short-term KPI:**

- Participation in events organized by UN organizations.
- Number of Memoranda of Understanding (MOUs) with UN and other organizations.

b) **Mid-term KPI:**

- Number of joint/collaborative programs.
- Number of sponsorships received from these organizations.
- A skilled workforce for disaster risk management and water management.
- Increased diversity of capacity-building programs in terms of themes and partners.

c) **Long-term KPI:**

- Improved disaster preparedness through a holistic and integrated approach.
- Sustainable project delivery.
- Enhanced execution of policies and programs.
- Improved governance.
- Bridging the gap between policy and practice.