The Asia Pacific Water Scarcity Programme (WSP)

Caroline Turner
Programme Manager
UN Food and Agriculture Organisation
Regional Office for Asia and Pacific
## Defining water scarcity

<table>
<thead>
<tr>
<th>TOO LITTLE WATER</th>
<th>TOO VARIABLE WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low natural precipitation and runoff conditions which induce low per capita water availability and general water scarce conditions.</td>
<td>Seasonal and inter-annual variability in precipitation produces highly variable water availability regimes and drives drought incidence.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVER-UTILISATION</th>
<th>POOR QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilisation of water resources for domestic and agricultural purposes exceeds water availability or causes water quality issues.</td>
<td>Quality of water resource does not suit the required quality of water users and reduces effective availability of water for some or all uses, depending on degree of pollution.</td>
</tr>
</tbody>
</table>
Water Scarcity in Asia Pacific

- Majority of the Asia Pacific population lives under some kind of water scarcity
- Water scarcity exhibits strong seasonality
- Scarcity is worsening, driven mainly by population and economic growth
- Climate change exacerbates scarcity but is not a key driver of it
The Asia and Pacific region is more vulnerable to climate change risks than other regions of the world, because of its dependence on the natural resources and agriculture sectors, densely populated coastal areas, weak institutions, and high poverty rates (ADB).

The WSP will put into place the essential foundations of an adaptable and resilient water management system, ensuring that practitioners can make the evidence-based decisions regarding adaptation and mitigation that are urgently needed.
Overview

- The Asia Pacific Water Scarcity Programme (WSP) operates at both national and regional levels.
- The WSP is country-led and designed to support countries in taking data-led and practical steps to address and manage water scarcity in a changing climate.
- The overall objective is to achieve sustainable use of water resources in the Asia Pacific and prepare countries to adapt to a future with worsening water scarcity.
- The WSP supports countries in their efforts towards SDG6 Water and Sanitation and all other water-dependent SDGs.
- The WSP is based on extensive scoping, establishment and technical activities carried out between 2019 and 2022.
Establishment and Scoping Activities

- Regional **scale modelling and mapping** of the trajectories of water scarcity
- Review of policies and **governance** related to water scarcity management
- Review of modelling capacities in Asia
- Development of **new practitioner tools** ‘REWAS’ and ‘Follow the Water’
Regional approach to water scarcity analysis

1. How does water scarcity vary throughout Asia?

2. What is the nature of water scarcity in 10 case study countries? (Bangladesh, Cambodia, Nepal, Thailand, Vietnam, Laos, Fiji, Indonesia, Australia, Myanmar)

3. How do case study countries manage water scarcity?
   - What has worked (and why)?
   - What hasn’t worked (and why)?

4. Which other countries face similar water scarcity problems? How can good policy instruments & successful management experiences be shared and adapted from one country to suit another?
WSP
Theory of Change

1. Strengthen mechanisms to support the development of knowledge
2. Build national capacities
3. Create the momentum for change
WSP Framework

1. Develop practical capacity in routine **water accounting**
2. Develop **water allocation** frameworks and processes
3. Work with **farmers and water managers to adapt** to water scarcity
4. Support a **Regional Cooperative Platform**
Technical tool development

- Real Water Savings in Agricultural Systems (REWAS) is a simple to use and pragmatic tool that evaluates the impact of field scale crop-water interventions at larger scales.
- Developed to overcome misconceptions with respect to water savings.
- An associated REWAS Guidance Document provides a full inventory of the interventions, and their impact on basin hydrology.
- Extensive training is ongoing.
WSP
Theory of Change

Strengthen mechanisms to support the development of knowledge

Build national capacities

Create the momentum for change
Project Activities 2023 - 2024

1. National Consultations

2. Analysis of water tenure

3. Establishment of a National Multidisciplinary Teams (NMT) and NMT development of national Water Scarcity Action Plan (WSAP)

4. Country-led development of a Water Accounting Roadmap

5. Country-led development of a National Water Allocation Framework

6. Water Accounting Practitioner Guide to assist practitioners in the Asia Pacific Region

7. Establish a Regional Cooperative Platform (RCP) the project will host a Regional High-Level Technical Workshop and a ‘Regional Water Scarcity Symposium’ to support regional cooperation and south-south learning and exchange
Outputs of Consequence

Water Accounting Roadmap
- Review of existing work on water accounting
- In-country training in water accounting
- Assess impact of climate change on water availability and demand
- Explore potential to utilize remote-sensing for water accounting
- Conduct water accounting in pilot basins (learning by doing)
- Quantify the required investments to fill capacity gaps

Water Allocation Framework
- Review existing water allocation policy
- Assess impact of climate change on water availability and demand
- Water rights and water tenure
- Simple scenario modelling to 2100 (incl. climate)
- Multi-stakeholder workshop to discuss modelling results

Water Scarcity Action Plan
- Commitment to act at high political level
- Capacity development needs
- Basin caps on water use
- Specification of environmental flows
- Investment strategies

Regional Cooperative Platform for South-South Exchange
Regional Cooperative Platform (Pillar 4)

Create a space for sharing both successes and failures, new knowledge and expanded partnerships

Establish a regional training team to build regional capacities

High level political and policy dialogue for south-south cooperation

• Regional High Level Technical Workshop 2023 (Bangkok)
• Regional Water Scarcity Symposium 2024 (Hanoi)
Thank you

caroline.turner@fao.org