

# Water Resource Management



IMAGE by Alexeyzhilkin from Freepik

## Overview

Water is essential for life and deeply rooted in Asian culture. With 60% of the global population calling Asia home, effective water resource management is crucial. However, the region faces significant challenges, including water scarcity, food production, urbanization, climate-related disasters, pollution, and social inclusion.

SEI Asia water resources research cluster is dedicated to developing knowledge, innovative tools, and solutions to improve decision-making and best practices in water resources management. Our goal is to ensure safe and secure water for all, contributing to the achievement of UN Sustainable Development Goals (SDGs) 6, 11, 13, 15, and 17. We align our strategies with the Convention on Biological Diversity (CBD) targets and Ramsar Convention on Wetlands.

## Areas of focus



**Water, Food, and Energy Security:** Developing innovative approaches for sustainable and equitable water use in food and energy production.



**Water-Related Disasters and Climate Risk Reduction:** Reducing risks through nature-based and structural-based solutions.



**Water, Land, and Ecosystems:** Ensuring the sustainability and equitable use of water, land, and ecosystem services.



**Water, Social, and Gender Inclusion:** Incorporating local knowledge, human rights, and gender equality into water resource planning.



**Water Management and Governance:** Enhancing cooperation, participation, and capacity building at transboundary, national, and local levels.



**Water Information and Innovations:** Developing modeling, forecasting, and knowledge management systems to support decision-making and promote water and climate-smart innovations.



IMAGE by Compost, photo from Getty Images



IMAGE by Wirestock from freepik

## Research initiatives

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**Sustainable Mekong Research Network (SUMERNET):** Research and policy engagement for sustainable development in the Mekong Region.



**River Basin Planning and Hydropower Development, Nepal:** Supporting the preparation of river basin and hydropower development master plans.
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**SERVIR-Mekong:** Applying geospatial data and technologies to improve environmental management and climate change resilience.



**Capacity Building on WEAP Modelling for Water Utilization and Climate Change Adaptation, Thailand:** Training and model development for water resource management.
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**Mekong Think Tanks:** Enhancing water security, clean energy transitions, and climate change adaptation and mitigation in the Mekong Region.



**Technical Assistance on Remote Sensing Technologies, India:** Monitoring riverbank erosion and coastal dynamics using remote sensing technologies.
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**Water Beyond Boundary Initiative:** Sustainable water planning through teleconnections, ecosystem consideration, and multi-participatory approaches.



**Promoting climate-smart water technologies and innovations for sustainable water resources and rice production under climate change in the Lancang-Mekong Region:** climate-smart water technologies and innovations in rice farming systems in both irrigation and rainfed areas, to save on scarce water supply, reduce water demands, and provide field water, land, and soil information to farmers.
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**Community-based Integrated Catchment Management in Upper Chindwin River Basin, Myanmar:** Sustainable use of wetland ecosystem services and poverty reduction.

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More information



SEI Asia, based in Bangkok, has a diverse team of multinational experts that integrates scientific research with participatory approaches to co-develop and share knowledge, build partnerships, and inform policy for resilient development. It focuses on gender equality and social equity, climate adaptation, reducing disaster risk, water insecurity and integrated water resources management, transitional agriculture, renewable energy and urbanisation.

SEI Asia is an affiliate of Chulalongkorn University (CU), Thailand. SEI and CU have inked a long-term agreement to foster innovative scientific research combined with effective policy engagement on development and environmental challenges in Asia. The key areas of collaboration are: intellectual engagement for joint research applications and fund mobilization; lecturing and seminars for CU's students; post-graduate supervision and examination; and, CU-SEI employee linkages.