

## SEI Asia theme: water resources management



October 2018

Water is life in Asia, which is home to 60% of the global population and half of the world's poorest people. Water security is therefore imperative for the livelihoods and economic prosperity of the continent's 4.5 billion inhabitants. Rapid growth and unsustainable development have led to significant pressures on the region's finite water resources.

The SEI Asia Water Resources Management work theme seeks to provide safe and secure water for all through promotion of innovative technical, institutional and policy solutions to the region's governments, development sector and civil society. Our research contributes directly to UN Sustainable Development Goals (SDGs) 6, 11, 13, 15 and 17 by supporting the sustainable and equitable use of water and land resources that lead to thriving biodiversity and terrestrial and aquatic ecosystems and to vibrant, inclusive and resilient cities and rural communities.

### Areas of work

SEI Asia offers expertise in river basin planning and management, water resources modelling, remote-sensing and GIS, hydrology, climate change, water resources engineering, development studies, valuing ecosystem services, river health monitoring, policy and institutions, multi-stakeholder engagement, training and capacity building.

We focus on five thematic research areas:

- **Water, food and energy security:** Developing innovative approaches and techniques to improve water security and sustainable and equitable water use for food and energy.
- **Water-related disasters and climate change:** Reducing risks from flood, drought and extreme events through both natural and structural solutions.
- **Water, land and ecosystems:** Quantifying the state, value and linkages between water, land and ecosystem services to ensure their sustainability and equitable use.
- **Water management and governance:** Using the SEI Robust Decision Support System and transforming river basin organisations for better water management.
- **Water information and knowledge systems:** Managing the information, modelling, forecasting, and knowledge management of water-based decision making.

Photo (above):

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Stockholm Environment Institute is an international non-profit research and policy organisation that tackles environment and development challenges.

We connect science and decision-making to develop solutions for a sustainable future for all.

Our approach is highly collaborative: stakeholder involvement is at the heart of our efforts to build capacity, strengthen institutions, and equip partners for the long term.

Our work spans climate, water, air, and land-use issues, and integrates evidence and perspectives on governance, the economy, gender and human health.

Across our eight centres in Europe, Asia, Africa and the Americas, we engage with policy processes, development action and business practice throughout the world.

**Projects:**

**Sustainable Mekong Research Network (SUMERNET):** A regional research network that bridges science and policy for the Mekong Region’s sustainable development.

**SERVIR-Mekong:** A partnership with the Asian Disaster Preparedness Centre (ADPC) that aims to improve environmental management and climate change resilience in the Lower Mekong Region through the application of geospatial data and technologies.

**Sustainable Water Partnership (SWP):** A partnership that promotes water security and water risk resilience in Cambodia through the SEI Robust Decision Support System, stakeholder engagement for decision-making and inclusive policy development.

**River Basin Planning and Hydropower Development:** A partnership that provides technical support to the Government of Nepal’s Water and Energy Commission Secretariat to prepare its River Basin and Hydropower Development master plans.

**Chindwin Biodiversity and Ecosystem Services (CBES):** A project that aims to empower civil society and governmental agencies to mainstream biodiversity and ecosystem service values into development planning for the Chindwin River Basin in Myanmar.

**Regenerating Ecosystems with Nature-based Solutions for Hydro-Meteorological Risk Reduction (RECONNECT):** A transdisciplinary partnership of researchers, industry partners and responsible agencies across the world that aims to demonstrate, reference and upscale nature-based solutions to reduce risks from hydrometeorological hazards.

**ASEAN State of the Environment Report:** A report prepared by SEI for the ASEAN Secretariat that includes the state of, trends in, and prospects for, ASEAN freshwater in both regional and global contexts.

SEI Water Cluster collaborating countries.

Source: Manish Shrestha / SEI

