

RESILIENT URBAN CENTRES AND SURROUNDS

Nature-based solutions (NbS) for climate resilient investment in Mekong communities, environments and economies

PROGRAM BRIEF

The mission of the Resilient Urban Centres and Surrounds (RUCAS) program is to:

1. Engage with Mekong country partners on priorities for action and align the opportunities created by hybrid NbS investments
2. Demonstrate local application and the economic case for action
3. Support scaling hybrid NbS for wider impact
4. Leave a lasting legacy of local partnerships and capacity.

THE NEED FOR RESILIENT URBAN INFRASTRUCTURE INVESTMENT DECISIONS

Cities in the Mekong region are growing rapidly – growth rates of 3–5% each year are higher than the world average. By 2030, more than 40% of the region's population is expected to live in urban areas.

These larger urban areas are driving economic growth, but how Mekong region cities manage their growth will determine the future health, wealth and wellbeing of communities and environments in the region. At the same time, climate change is increasing the pressures facing these rapidly growing urban centres.

The program addresses a key challenge – conventional approaches relying on large scale 'grey' infrastructure solutions alone cannot deliver the social, environmental and economic outcomes Mekong region communities desire at a cost that they can afford.

Creating resilient urban centres and surrounds requires a broader solution set. Nature-based solutions are increasingly being integrated into urban planning to provide more cost-effective and flexible 'green' or 'grey-green' infrastructure to create resilient urban centres. Using water management as a catalyst, better integrated 'green' and 'grey' infrastructure enables NbS that are scalable, flexible, cost effective and responsive to the contextual features and priorities of the community and environment being considered. With effective public, private and community collaboration they can complement conventional approaches and create hybrid solutions that support climate resilient growth and improve quality of life.



PROGRAM DETAILS

The program will use water management as a catalyst to promote urban climate resilience in 4 Mekong countries – Thailand, Viet Nam, Cambodia and Lao PDR. It builds on previous work on [NbS in the Mekong region](#), and responds to interest from in-country to both scale up the work done in Thailand and Viet Nam and scale out the work to develop projects in Cambodia and Lao PDR.

The program will support each partner country through 4 stages:

- 1. Engage Mekong country partners on the priorities for action and align the opportunities created by hybrid NbS investments:** The program will engage a wide range of public, private and academic stakeholders in each country to understand local issues, priorities and possibilities for their country and the Mekong region. Drawing on international experience, the program will highlight the potential contribution of investments in hybrid NbS infrastructure to more climate resilient urban development.
- 2. Demonstrate local application and the economic case for action:** The program will combine local partner insights and international expertise to build a case for action. It will show the relevance, design possibilities and economic case for climate resilient NbS in Mekong urban communities through local demonstration of concept studies including:
 - a. new collaboration locations (e.g. in Lao PDR, and Cambodia) that show the diversity and adaptability of NbS and add to an existing portfolio of Mekong region study locations
 - b. further development of existing study locations (in Viet Nam or Thailand), which may include supporting prefeasibility documentation, and conducting more detailed investigation of the opportunities, business cases and funding mechanisms.
- 3. Support scaling and wider impact:** Partners will be supported to scale up application in study locations and beyond by adapting international and local research and resources. These resources may include guidelines, regulations, template designs and investment decision support tools specific to the Mekong region. Identifying pilot opportunities (ideally linked to current or planned infrastructure projects) will also be a key element of this stage. Pilots may cover physical infrastructure as well as innovative community engagement and economic incentives.
- 4. Leave a lasting legacy of local partnerships and capacity:** Knowledge exchange and training will be an integral part of the program. It will be designed and delivered in partnership with local public, private and academic institutions. The Cooperative Research Centre program in Australia provides a potential model for these partnerships. Regional events and online hubs will support wider exchange.



Each partner country is different and each jurisdiction will progress through the 4 stages at a rate that reflects their context and involvement in precursor activities.

Cross-cutting themes for each stage of the program will be:

- **Adopting an urban systems approach**, using water management issues (e.g. water security and quality) as an entry point for considering key urban planning issues at the precinct and catchment scale
- **Unlocking a broader range of options**, by integrating NbS (e.g. wetlands, parks, mangroves etc.) and non-structural solutions (e.g. planning controls, flood warning systems, economic incentives) with current and planned conventional grey infrastructure (e.g. drainage assets, energy systems and roads), and then assessing options using a new approach to economic evaluation
- **Focusing on long term collaboration and impact through scaling**, by building on existing momentum and networks to lock in previous progress (scaling deep), accelerate practical application in new contexts (scaling out) and foster local scientific evidence and institutional support (scaling up)
- **Considering GEDSI (Gender Equality, Disability and Social Inclusion) and COVID 19 response and recovery** across program design, delivery and outputs.

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PROGRAM OUTCOMES

RUCAS fosters growth that ensures urban centres and their surrounding peri-urban and wider catchment areas:



Take action to reduce the rate and magnitude of climate change and proactively enhance GEDSI outcomes



Are ready for a wide range of extreme events (including flood, drought, fire, extreme heat) through locally appropriate hybrids of structural measures (e.g. flood protection works, flexible energy and water supply options) and non-structural solutions (e.g. early warning systems, community education, economic measures and planning controls)



Respond effectively via engaged communities and resilient hybrid infrastructure that are supported by appropriately trained and resourced experts who reflect the diversity of the communities they serve



Recover quickly when these events occur in ways that also improve equity, efficiency and long term growth



Learn together by building lasting local capacity and partnerships supported by regional connection.

At the end of the program:

- Mekong country partners will have improved technical capacity and capability, local demonstrations of concept, institutional buy-in and regional collaboration to support scaling hybrid NbS for more climate resilient development
- Mekong country partners will have a gender diverse cohort of technical champions and program reports, guidelines and recommendations that illustrate and support application of GEDSI outcomes
- Australian private sector partners will have improved capacity and pathways to market for hybrid NbS
- Participating Australian and Mekong region universities will have enhanced collaboration and will have explored future research and education opportunities.

The program was established by the Australian Government Department of Foreign Affairs and Trade (DFAT), and is being implemented by Water Sensitive Cities Australia and ICEM – International Centre for Environmental Management.

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