

## Can Tho, Vietnam

### COMMUNITY BASED URBAN FLOOD AND EROSION MANAGEMENT FOR CAN THO CITY

2012–2015 | Partner: Ninh Kieu People's Committee, An Binh People's Committee, Can Tho CCCO, ISET-Vietnam, CtC, Can Tho University



Coconut and bamboo fences made by the local people to protect the riverbank.

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### CONTRIBUTIONS TO URBAN CLIMATE RESILIENCE



#### SYSTEMS

This project promotes cost efficient, “safe failure” approaches to flood management, such as biological river stabilization (or “green corridors”) methods, clean-up and restoration of traditional drainage systems, and improved waste management to combat river bank erosion and drainage loss.



#### AGENTS

The project aims to enhance the capacity of local community members, empowering them to coordinate, plan, implement, and continuously monitor local flood management systems.



#### INSTITUTIONS

Co-management is an institutional innovation, seeking to foster collaboration and benefit sharing within communities and between the public and the state. This project will experiment with new platforms for planning, coordination, and regulation, and will develop new mechanisms for management and monitoring.

For more information about The Climate Resilience Framework, please visit: [www.i-s-e-t.org/CRF](http://www.i-s-e-t.org/CRF)

## Summary

An Binh ward is a densely-populated middle and lower-income residential area in the central city district of Ninh Kieu, Can Tho. The Cai Son River and local drainage channels traverse the ward. About 10-15 years ago, these played an important role in community life, facilitating waterway transportation, providing water for domestic and agricultural use, and providing drainage for residential areas.

Changing conditions, however, have seriously degraded these multi-functional, community assets. A shifting Mekong hydrological regime and sea level rise, proliferation of high-risk construction on riverbanks by poor, unregistered migrant households, and increased traffic from heavy river boats have caused riverbank erosion along the Cai Son. Meanwhile, encroachment from urbanization has narrowed channels from their historical width of 8-12 m to just 1-2 m. New development causes additional obstruction and contamination from sanitary and industrial sources.

Because of erosion and loss of drainage systems, local residents are increasingly exposed to flooding from heavy rainfall and seasonal high tides. The poorest areas in these communities suffer more frequent, deeper and longer inundations. Residents report financial losses, structural damage and health impacts from backed-up floodwaters, including the pollution load. These problems are caused primarily by uncoordinated urbanization—but sea level rise, tidal surge, and extreme rainfall events related to climate change will strongly exacerbate them.

Can Tho city has a clear policy mandate from the national government to preserve natural canals. However, it currently lacks practical enforcement mechanisms, penalties or management tools. Plans to build hard embankments along many of the river channels within the city are widely seen as prohibitively expensive and unlikely to be implemented. International experience from cities like Ho Chi Minh and Bangkok, moreover, demonstrate that damages wrought by poor urban development practices cannot be completely or safely

redressed by such “hard solutions.” New strategies emphasizing flexibility and “safe failure” are needed.

Community members in An Binh ward shared their concerns about worsening flood conditions with the CCCO through participatory planning. Many households have already developed their own small-scale responses to riverbank erosion, such as bamboo fences, growing water hyacinths, and planting mangrove apples. As of yet these efforts are too fragmented and uncoordinated to be broadly effective in the long-term.

## Our Approach

The goal of this project is to harness the knowledge and experience of this proactive community to sustainably stabilize the riverbank and rehabilitate traditional drainage systems. The Can Tho CCCO, ISET-Vietnam, and CtC will work with the An Binh People’s Committee to develop new mechanisms for joint community and local government protection of riverbanks, restoration of drainage channel, ongoing management and monitoring, and improvement in awareness and capacity for flood management.

Starting in January 2013, the project will undertake the following activities:

- With support from the University of Can Tho: review the causes of, rates of, damages and losses from, and existing approaches to combating river bank erosion along the Cai Son River; review the current state of drainage blockages in Ap Chien Luoc channel and how these blockages impact the environment, health conditions, and livelihoods; review local policies and guidelines regulating riverbank erosion and drainage systems in Ninh Kieu district; and document experience with biological erosion control methods and rehabilitation of urban drainage channels;
- Establish community groups and working procedures for biological riverbank stabilization and drainage rehabilitation;
- Work with community groups to prepare and implement ongoing monitoring plans, in consultation with local government and contractors; and
- Improve awareness of and capacity to implement flood management for related local government agencies, communities, community volunteers, self-management groups and local people through publications and dissemination, trainings, media, workshops and site visits.

## Lessons and Learning

The project provides a critical learning opportunity regarding whether Vietnam can provide suitable conditions for successful co-management of urban infrastructure. Theories and practices of “co-management” assume that common, natural resources can be effectively managed by the public and the state collectively under conditions in which access and benefits sharing are agreed and maintained, all stakeholders are involved in establishing rules and regulations, benefits of protection/management outweigh the opportunity costs for the parties involved, and where monitoring and conflict resolutions systems are in place. There are many challenges for co-management in Vietnam, where enabling laws are just beginning to emerge at the national level. While there are some strong previous experiences with “community-based” approaches, many of these have been dominated by rules handed down by the government, which can be reluctant to share authority or inflexible in its interpretations of policies and guidelines. Likewise, the public at times is untrusting, or reluctant to take on tasks they believe should be undertaken by the state. For An Binh ward, an additional concern involves the boundary of the intervention, since new urban development within or outside of the ward can further threaten flood management systems.

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