

Trang, Thailand

Urban development and biodiversity conservation in Trang



Trang municipality has integrated biological diversity conservation into its urban development planning by initiating a conservation project at Nam Jed Canal or Klong Nam Jed (Klong means canal in Thai). The Klong Nam Jed Conservation Group, a locally driven organization, is working with the municipality to restore and conserve the ecological conditions of the canal. The initiative surveyed and assessed biodiversity to support action plans and policies. It underscores the need for information on biodiversity and stakeholder involvement.

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Abstract

Tackling climate change and conserving biological diversity is an important issue for the city of Trang. With the participation of various stakeholders, the objective of the project has been to develop a better understanding of the importance and the benefits of biological diversity and conservation. The project included a site survey, sampling and data collection, and interviews with local community members. The participants came up with short and long term measures and action plans to conserve the biodiversity along Klong Nam Jed. This allows the city of Trang to develop effective and appropriate action plans.

Importance of river conservation in urban growth

Klong Nam Jed is an important resource for the local people of Trang Municipality and its province. This natural canal flows through the heart of the city. The area along the canal is rich in biodiversity, providing the basis of many local livelihoods. However, the rapid growth of Trang has had significant impacts on Klong Nam Jed. Deforestation along the canal as a result of housing development, agriculture and the construction of dams are also preventing water from naturally running off. These are impacting the ecology of the canals. As a result, Klong Nam Jed is at risk from rapid deterioration.

The main canal passes through the city with a total length of 5.45 km, and an average depth of 3.5 m. A large number of plant, herb and animal species provide a great deal of benefits to local people who reside along the canal, such as for recreational activities and resources. There is still a high level of biological diversity along the canal, which makes Klong Nam Jed an area worth conserving.



Population / Land area

~ 61,000 (2010) / 15 km²

Municipal budget

Approx. THB 38 million
(US\$ 12.2 million)



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Case Study

City context

Trang municipality is located in Trang province in the southern part of Thailand, lying next to the Andaman Sea. The terrain has low and high hills. The region has three main seasons: summer, rainy, and winter season.

Trang developed into a city in 1999. Currently, the municipality has a total population of 61,101 consisting of 22,368 households and 27 communities. The local economy is mainly made up of trading, hotel business, services and government. The city has around 780 government employees. Trang offers many natural tourist attractions, making the city municipality a center for economic activities within the province and region.

Trang prioritizes development projects that improve the well-being of local communities and conserve biodiversity and natural resources. This is under the vision: “Good Society, Quality of Life, Peaceful Atmosphere, City of Education and Learning”. The goal is to maintain the balance between community, society, economy, culture, tradition, and the environment.

There are eight main development strategies for the city. Those that are relevant to the environment include the environmental strategy, tourism promotion, and natural resource conservation. These are implemented through awareness raising, protection and restoration of natural resources and ecosystems, and by promoting sustainable tourism

Developing biodiversity conservation policy in Klong Nam Jed through stakeholder involvement

Trang municipality is committed to the conservation of natural resources and

environmental friendly development. In 2000, the municipality was selected by the Department of Environmental Quality Promotion of the Ministry of Science, Environment and Technology (now under Ministry of Natural Resources and Environment), as a model for the southern region. This was carried out under Thai-Swedish joint cooperation on Local Agenda 21 for Sustainable Development.

Between 2000 and 2002, the focus of the city’s environmental management efforts included sewage management, water quality treatment, air quality treatment, and city landscape development.

Between 2005 and 2007, Trang expanded its efforts and focused on sustainable development with an emphasis on sustainable tourism and environmental conservation. For example it has joined hands with the private sector to develop several environmental projects such as



Nam Jed Canal, Trang.

Photo: Jefferson Pancieri - SPTuris

Development methods

Short-term

1. Capacity building for local communities to increase awareness and understanding of the importance of Klong Nam Jed biodiversity conservation.
2. Establishing the area of Klong Nam Jed as a conservation area in order to restore biodiversity.
3. Assessing and measuring the area along the canal improves clarity on responsibilities between relevant agencies and landowners, starting with a survey to identify which areas to develop for pilot projects.
4. Encouraging households along the canal to maintain water quality by setting up grease trap tanks and managing waste.
5. Creating projects such as “Return Woods to Forest, Return Fish to Klong Nam Jed” to promote tree planting along the canal and the reintroduction of threatened fish species.
6. Establishing working groups of teachers, technical foresters, and environmentalists to develop local educational curriculum on the biodiversity of Klong Nam Jed.
7. Enlisting local researchers, teachers, youths, and villagers to survey and study various types of plant and animals species, particularly those species that are rare or seem to have been lost to the area.

Long-term

1. Adapt wastewater treatment capacity for the area of Klong Nam Jed community.
2. Support the development of community gardens or “local herbs” groups to promote a self-sufficient local economy. These measures should help reduce expenditure and increase revenue by promoting edible crops and herbs for sale in the local community. Promote the area of Klong Nam Jed for ecotourism and agro-tourism by establishing tourism points and service development activities.
3. Providing opportunities for community members interested in becoming tourist guides in the Klong Nam Jed area.
4. Releasing rare native fish species into the canal after improving its water quality; the canal serves as a breeding ground for many commercially valuable species of fish.

“Stop Global Warming” project lead by Thailand Environmental Institution and Toyota Motor, Thailand.

Trang municipality has promoted and implemented its biodiversity conservation project since 2008. A key component was the Nam Jed Canal project. It began with a biodiversity survey of the canal area. Since then, the municipality has cooperated with the Thailand Environment Institute, Community Forestry Promotional Center 8 (Trang), Private Developmental Institutions, and the Klong Nam Jed Group, a local community group to further protect the area.

Trang municipality, together with the Klong Nam Jed Conservation Group, established by community members and local organizations, are working to prevent the further ecological decline of the canal.

The project also involved the formation of working groups and training activities for biodiversity technical surveys, data collection on plant and animal species along the canal, and interviews with local communities.

Results

Status assessment. The survey recorded the biodiversity of canal area. It highlighted according to the survey, that the area around Klong Nam Jed is still containing a high level of biological diversity of both among plant and animal species.

Assessment and planning. Based on the assessment of the canal area, action plans and measures have been developed and proposed to the municipality. These assessments contribute to the development of city plans, identify the need to conserve and sustain biodiversity, and promote the awareness of the importance

and the appreciation of the benefits that can be generated from natural resources.



Preparation of the survey.

Survey results. The participatory approach of the biodiversity survey revealed a diverse range of plant and animal species. More than 50 species of plants, 20 species of herbs, 20 species of fish and 20 species of birds were found. Many fish species are economically important, while many species of birds, such as the blue-winged pitta, greater racket-tailed drongo, and long-tailed Shrike are considered rare in urban areas. The sightings of these birds indicate that the surrounding areas of the canal are important habitats. The discovery of so many species through participatory approach generated a common understanding and widespread desire to develop guidelines and policies to protect the biodiversity through the

sustainable development of urban areas.

Multi-stakeholder approach. The policy development involved the participation of multiple stakeholders from the local governments and public sector, and other to maintain the biodiversity of the Klong Nam Jed area.

Lessons learned

Together with their local governments, community members had the opportunity to learn methods for surveying plants and other wildlife. This provided them with an opportunity to understand the importance of scientific knowledge to sustainable development.

In 2003, through a participatory approach involving local governments and the public, Trang Municipality set up “Klong Nam Jed Conservation People”, a biodiversity survey and data collection group, intended to contribute to the conservation of Klong Nam Jed for the next generation.

The success of conservation measures largely depends upon the contribution of local governments and executives, particularly when a project ends. Restoration and conservation of biodiversity in wetland ecosystems requires understanding and participation of stakeholders at all levels, including communities living upstream, midstream and downstream. Conservation of canal biodiversity should occur at a holistic level.

While goals may take time to achieve, the cooperation and participation of multiple stakeholders at all levels is required. In order to conserve urban biodiversity it is necessary to establish a network among local governments. In Trang Province, there are a total of 100 local governments that meet monthly. This is one of the key success factors in finding agreement on policy, especially policy related to urban biodiversity conservation.

Replication

Trang municipality disseminated the concept of the project and its methods in the Local Agenda 21 Network Meeting for Southern Region in an effort to expand its network both within its own province and beyond. The concept and the methods have been shared with relevant local organizations such as:

- Ao Tong Tambon Administrative Organization, Wang Wiset District, Trang: Tree Planting for Biodiversity and
- Roi Chan Phan Wang Upstream Conservation
- Tung Krabue Tambon Administrative Organization, Yan ta Kao District, Trang: Mangrove Forest (and surf clam)
- Conservation in Ta Bandai Canal
- Ta Kham Tambon Administrative Organization, Pa Lien District, Trang: Seaweed Planting in Yong Star Sea
- Ta Mohd Municipality, Ta Mohd District, Pattalung: Klong Ta Mohd Conservation - River Spy by Local and Youth
- Trang Municipality has cooperated with Trang Province, Bang Rak Tambon Administrative
- Organization, and other local networks in Trang to organize “Trang River Conservation” through various stakeholders

The Klong Nam Jed Conservative Group itself also had the opportunity to share its experiences related to environmental and urban biodiversity conservation with other environmental conservation groups in Trang Province. These included Nong Trud Community, Yan Sue Community, Klong Lampu Community, Bang Mak Community, Bang Pao Community, and Mountain Forest Paddy Field Group.



Surveying biodiversity.

Budget and finances

At the initial stage of the project, a budget of THB 15,000 (approx. US\$ 500) was provided by the Thailand Environment Institute for developing the biodiversity survey working groups. Trang municipality also supported a budget of THB 60,000 (approx. US\$ 2,000) for biodiversity surveys and data collection, as well as for publishing literature on the working process and results for the local people. The total cost for the project, therefore, amounted to THB 75,000 or US\$ 2,500.

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Local Action for Biodiversity

The Local Action for Biodiversity (LAB) program is a global urban biodiversity program coordinated by ICLEI - Local Governments for Sustainability's Global Biodiversity Centre, in partnership with the International Union for Conservation of Nature (IUCN). The LAB Pioneer program began in 2006 with a selected group of local and regional authorities from around the world, representing over 54 million citizens. The program provides an accessible and enabling platform for committed, leading local governments from around the world. This is achieved by profiling and promoting the importance of urban biodiversity and the role of local governments in its management, as well as by sharing the experiences, successes and challenges of urban biodiversity management in the participating cities and local authorities.

ICLEI provides guidance in assessment, planning and implementation; strategic networking opportunities; profiling opportunities for the participating local authorities at global and regional events; and creates a platform for local authorities to contribute to global advocacy on biodiversity issues.

www.iclei.org/biodiversity

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