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PRIK MUNICIPALITY

Flood solutions by Nature-Based

Prik Subdistrict Municipality, Songkhla Province, Thailand



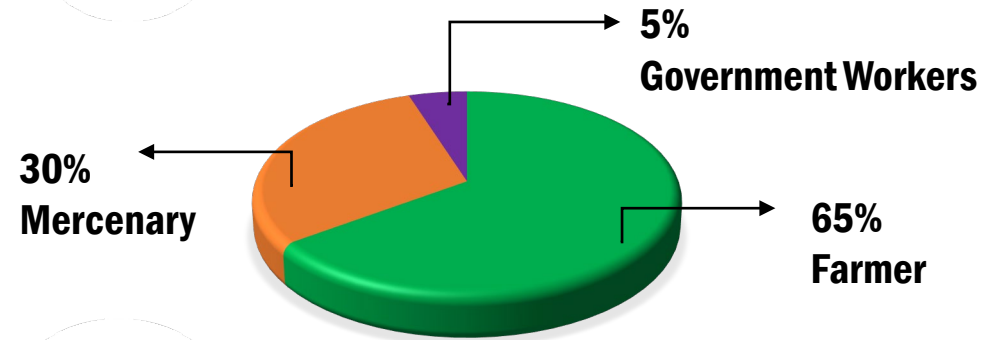
City Profile



The topography of the Prik Subdistrict is mostly 70% flat and 30% hilly plains with forests, watersheds and community forests in the foothills. With that, many water sources exist, especially U-Tapao Canal as a principal river and Khlong Prik is the second most important river that flows through the communities to support agriculture and farming including the water supply system.



6,454 (registered) and 248 (unregistered)



4.8 Sq.kilometers



Map of U-Tapao Canal Basin

➤ Length: 112 Kilometers

➤ Coverage Area: 2,535 Sq.Kilometers

24 Municipalities in Songkhla Province

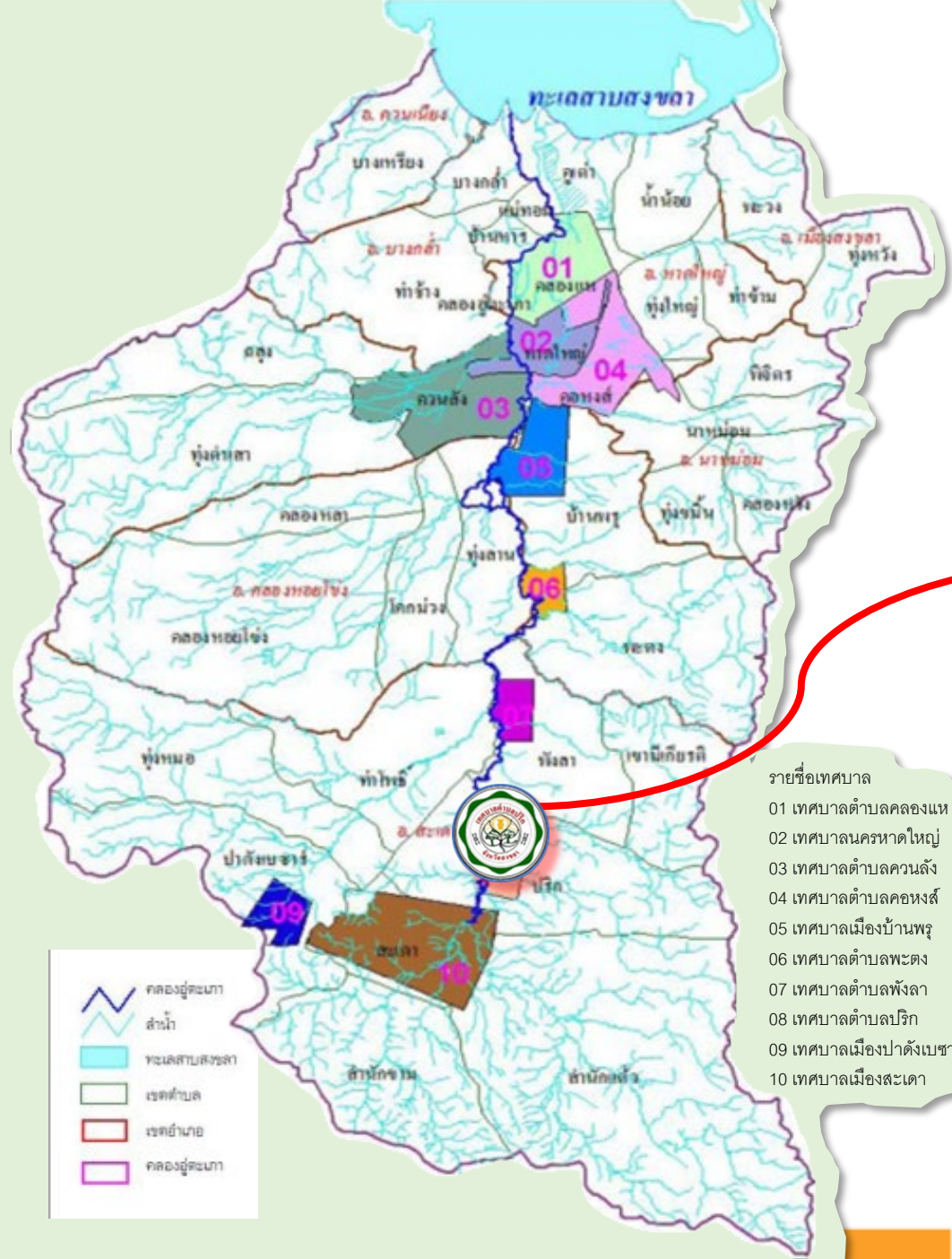
Prik Subdistrict Municipality, Songkhla Province

รายชื่อเทศบาล

- 01 เทศบาลตำบลคลองแห
- 02 เทศบาลนครหาดใหญ่
- 03 เทศบาลตำบลควนลัง
- 04 เทศบาลตำบลคองหงส์
- 05 เทศบาลเมืองบ้านพรุ
- 06 เทศบาลตำบลพะตง
- 07 เทศบาลตำบลพังงา
- 08 เทศบาลตำบลปริก
- 09 เทศบาลเมืองปาดังเบซาร์
- 10 เทศบาลเมืองสะเดา



**Flow of U-Tapao Canal
in the area of Prik Subdistrict
Municipality**



Background

Due to climate change, even Prik has many water sources that exist but are still affected by drought and flooding in the rainy season every year.

A lot of damage to the plantation & farm areas which are the major economy of the city, citizens' properties and housing.



Socio-economic impact

Floods and disasters occurred many years ago. Damage is estimated to be up to 33 million baht. Six out of the seven communities had flooded areas. Roads around the settlements had to be closed due to the 3-meter-high flood water in certain areas. The town of Prik has no communication with the outside world. Income levels have fallen. The cost of restoring and aiding flood victims must be increased by government organizations. As a result, costly product issues develop.



The risk of harm to both people and property. The tides destroyed unsound structures. The currents cause damage to animals, cars, and people.

Destroy agricultural areas, including rice fields, rubber plantations, and agricultural crops, which are the people's primary sources of income.

Damage to agricultural areas, which are the people's main source of income, such as rice fields, rubber plantations, and agricultural crops.

Harm to public health. A scarcity of safe drinking water. Athletes' feet, rashes, diarrhea, and conjunctivitis are epidemic problems caused by poor hygiene in everyday life.



Flooding



Drought



The solution towards Prik Resilient City



- **Apply a nature-based solution by establishing a “MonkeyCheek” as a water retention system; stored rainwater instead of letting it flood and reserved as raw water for the water supply system.**
- **Increase the capacity of the shallow Prik Canal as a drainage way during the rainy season to reduce the severity of the flooding problems and reserve water for the dry season.**

- **Use solar energy to operate the tap water system.**
- **Educate the citizen to realize energy efficiency use & renewable energy.**
- **Monitored water quality in U-Tapao Canel & Khlong Prik.**
- **Set up the wastewater management network.**
- **Create a resilient city curriculum for schools and guidelines for the public.**



Nature –based solution : Monkey Cheek

“Monkey cheeks” is a term coined by Late King Bhumibol Adulyadej (King Rama IX) to promote flood control measures. He noticed that when monkeys eat, they store excess food in their cheeks so they can chew and eat them later.



“create a natural water retention system; stored rainwater instead of letting it flood and reserved as raw water for the water supply system & for the dry season”



Preserve the ecosystem's and biodiversity's balance. As a result, people have access to a wide range of natural resources and living capital, including freshwater fisheries.



Abundant water resources all year, enough for agriculture, which is the main occupation of the people in the area



Reduce economic losses as a result of being able to solve flood and drought problems. People have access to water all year, increasing agricultural productivity and income from the agricultural sector.



Reduce the budget for flood and disaster relief. This left a budget for developing environmental management innovations and improving the quality of life in the community.



Growing as a natural tourist attraction to increase opportunities for future job creation and career development.



The image features a dynamic, stylized wave graphic in shades of blue and white, set against a dark blue background. The wave is depicted with sharp, angular lines and splashing water, creating a sense of movement and energy. The text "Thank you for Attention" is centered horizontally and vertically, rendered in a white, serif font with a slight shadow effect, making it stand out prominently against the dark background.

Thank you for Attention