

## **Abstract**

### **Review of existing functions of water management in Thailand**

The National Committee on Hydrology separates Thailand into 25 distinct hydrological units or river basins. Each has different characteristics i.e. different amount of water demand and water sources, for instance Chao Phraya River Basin is the most agriculturally productive area without its own large water sources. Demand for water in this area far exceeds locally available supply and it needs to depend heavily on water from other river basins such as Mae Klong.

Although Thailand has a number of laws related to water management, there are still loopholes in water management system in the country. Top-down practices still dominates the decision-making processes and the rules and regulations are fragmented and unclear. In addition, water is perceived as an open-access resource and it is evident that this perception has led to more and more conflicts.

#### **Key issues of drought management in Thailand:**

- a) As part of the water release planning, data on water demand must be taken into consideration. But, it has been realized that the amount of water demand estimated by farmers is calculated based on the fact that water is *free*. Therefore, it could not be said that the estimated water demand is accurate and the water release planning might not be as effective as it should be.
- b) When the amount of water in dams is low, a notification will be issued suggesting farmers not to plant crops or rice for the second round in the year. But most of the time, farmers do not follow the instructions and when there is not enough water, they usually put pressure on the Royal Irrigation Department to release more water, some of them use pumps to pull out water from irrigated canals. Currently, there is no mechanism to effectively solve such problem.

#### **Key issues of flood management in Thailand:**

- a) Most of the physical infrastructures for water management are not designed to solve flood issues. Most of them were originally designed for irrigation system.
- b) Managing floods is usually an ad-hoc work. There's no effective long-term plan.
- c) Some government policies worsen floods, for example the rice pledging scheme. People usually build temporary dykes to protect their farm lands which block and intensify flood water.
- d) There's not enough coordination and integration among agencies which deal with floods.

### **Key issues of water management at the national and river basin levels**

- a) There are a number of committees dealing with water management at the national and river basin levels and most of the committees consist of members from different government agencies and they have different mandates and objectives. There's currently no mechanism to encourage the coordination and integration of the work of these agencies.
- b) The main duty of River basin committees is only to provide policy recommendations to the Cabinet. They do not have the authority to take actions to solve problems.
- c) Most of the time, only representatives of government agencies are present at committee meetings. Other stakeholders, especially local communities are underrepresented.

### **Key issues of water management at the local level**

- a) Irrigation water theft is still a big issue and there's no effective mechanism to prevent it.
- b) When there's not enough water, water user groups usually hold protests and pressure the Royal Irrigation Department officers to release water for their farms. Now, there's no effective system to ensure equitable distribution of water.
- c) Local people or water user groups do not have adequate skills or knowledge to maintain water management projects at the local level.

### **Summary of main issues of water management in Thailand**

1. Water management in Thailand has always focused on providing water to agricultural areas and solving droughts. Therefore, the physical infrastructures are more suitable for delivering water to farm lands, not solving floods.
2. Water is perceived as an open-access resource. Because of limited water resource, this perception leads to increasing water conflicts.
3. The roles of some agencies dealing with water are duplicated and fragmented. There's currently no mechanism to integrate or link them together.
4. Politics can easily intervene in water management processes and there's no mechanism to prevent such action to take place.
5. Public participation processes in water management is still limited and fragmented.
6. To prevent the farm lands or residence from floods, people now usually build physical infrastructures such as dykes to block water. This has intensified flood problems.
7. There's no effective land use planning. Because of this, the damages from floods are considerably higher.