

## Policy Brief

### History of Water Resource and Flood Management in Thailand

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#### 1. Background

In 2011 Thailand suffered one of the most devastating floods in her history. The cost of the damage estimated by the World Bank was 1.4 trillion baht (47 billion USD), or 13 per cent of the country's GDP. While the unusual heavy rainfall -- roughly 20 per cent above the seasonal average - - no doubt triggered the disaster, the extent of the damage was exacerbated by inappropriate land use, dilapidated infrastructure for drainage such as water gates and water pumps at the pumping stations and last but not least, the lack of proper administration and management of floods.

To prevent a reoccurrence of such a national disaster, the government is currently chartering a myriad of large-scale infrastructure projects, which includes the construction of flood ways and water reservoirs, with an allocated budget of at least 12 billion USD. While much effort has been focusing on building the "hardware", very little attention has been paid to the developing the much needed "software" that will be required to effectively manage the new infrastructure. Given the more variable weather pattern due to the climate change, the likes of the 2011 flood is perhaps not as remote as past statistics would reveal. (reference). It is therefore of utmost importance that Thailand develops effective institutions to prevent and mitigate disasters from floods.

This paper aims to examine the structure of flood management in Thailand, both before and after the 2011 major flood and to compare it with those in countries with advanced institutional designs for flood management. The exercise will give guidance to the formation of a proposal for a comprehensive institutional reform for an effective flood administration regime.

#### 2. Flood Management in Thailand

Unlike most countries, Thailand does not have a law governing the management of water resources. The authority to administer water resources is embedded in over 50 laws involving more than 30 state organizations across 7 different Ministries. As a result, there are overlapping authorities. For example, the Department of Irrigation, the local administrative organizations (LAOs) and the Marine Department are all authorized to dredge canals for own purposes be they irrigation, flood prevention or water transportation. Yet, none of these laws prescribe the authority to divert water for usage and none concerns specifically with flood management. So, who is in charge of floods?

As an agriculture-based economy, the Department of Irrigation, Ministry of Agriculture and Agriculture Cooperatives has dominated the water management landscape. According to the Royal

Irrigation Act 1987 (5<sup>th</sup> revision), it is also mandated to “prevent of damage from water”. The department is given the authority to construct and maintain waterways and required infrastructure to prevent floods. However, much of the function has been devolved to the local administration as prescribed in the Plan and Procedure for Devolution of Power to Local Administration Act 1999. As a result, the Department of Irrigation is mainly responsible for the operation of water gates and reporting the volume of water in canals and waterways through its provincial branches to the provincial governors. The only other government agency that is directly responsible for floods is the Department of Disaster Prevention and Mitigation, the Ministry of Interior. The latter, however, is involved only after the disaster strikes.

The need for an overarching water management institution is well recognized since 1989 when the government at the time passed a Prime Minister’s Office Regulation that established the National Water Resource Committee (NWRC) chaired by the Prime Minister himself. Members were also handpicked by the Prime Minister himself. The Committee was responsible for supervising and monitoring water resource management plans or projects and to advise the cabinet on how to improve laws and regulations governing the development and conservation of water resources.

In 2002, the Regulation was amended in order to devolve certain water resource management responsibilities to the local administrative organizations in keeping with the Plan and Procedure for Devolution of Power to Local Administration Act 1999. The revised regulation established “Watershed Councils” under the NWRC whose mandate is to draw up watershed management plans, water allocation plans, mediating disputes arising from competing users of water resources and coordinate with state organizations and other watershed councils.

In 2007, the interim government installed after the *coup d’etat* in September 2006, passed yet another Prime Minister’s Office Regulation Governing Water Management establishing the NWRC. The composition and the mandate of the committee this time were different as they were based on those prescribed in the Draft Water Act, which was still in the legislative pipeline at the time<sup>1</sup>. The NWRC established 25 “Watershed Councils” consisting of provincial governors, representative of water users and experts. These councils were not so effective because of the absence of legal authority to execute adopted policies and measures and high churn rate of members who are provincial governors.

The elected government that came in early 2008 did not make use of the NWC, however. Instead, when the country was hit by the major flood in 2011, it established, by Prime Minister’s Office Decree, the Strategic Committee for Water Resource Management(SCWRM), which is headed by the Prime Minister. The SCWRM was given the mandate to draft a water and flood management master plan. The plan recommended the establishment of 3 organizations namely:

(1) the National Water Resources and Flood Policy Committee (NWRFPC) responsible for the formulating flood management policy and propose budget allocation for the cause;

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<sup>1</sup> Regulation as the Draft Water Act has been around for almost 2 decades. However, due to frequent change in the government, the law – often not on the political radar -- has not made it through the legislative process.

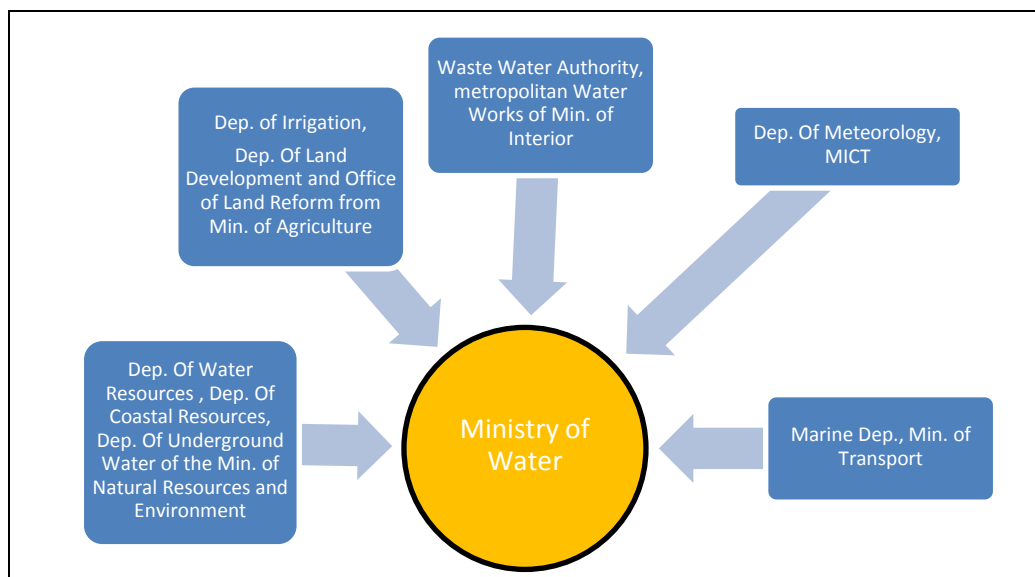
(2) the Committee for Water Resources and Flood Management responsible for executing the adopted policies and measures and

(3) the Office of National Water Resources and Flood Committee, the secretariat body.

Presently, these 3 bodies have been instated and are the main players of flood management. In the absence of legal power, however, they rely solely on the executive power to implement their assigned duties and responsibilities. The NWRFPC has been designated as the sole authority to procure and manage all construction projects for flood prevention which was allocated a budget of USD 12 billion as mentioned earlier.

In 2011 after the major flood, the current government of Ms. Yingluck Shanawatra briefly flaunted the idea of establishing a “Water Ministry” that will consolidate all departments involved with water resource management functions as shown in picture 1 below. It was perceived that the institutional reorganization can “fix” the flood problem. A law was drafted for the occasion. The proposal seems to gradually fade away after the flood hype died down.

**Picture 1: Ministry of Water according to the Draft Ministry of Water Act**



### 3. Conclusion

To sum up, the management of water resources and flood in Thailand is highly fragmented in the absence of a law governing water resources management. Past attempt to consolidate water and flood management has been somewhat *ad hoc* and *transitory* As can be seen in picture 2 below. Various committees established by executive decrees have been created under different governments for different occasions. As these committees rely solely on the executive power for implementation in the absence of statutory authority, their life spans

are limited to the term of the particular government. An act to consolidate the management and administration of water resources is much needed, but the draft Water Act has been in the legislative pipeline after almost 20 years. It is likely that the draft Act will continue to remain so as long as Thailand's political instability persists such that governments are pre-occupied with short term policies and measures required to gain or secure popularity.

Picture 2: Evolution of the Thai Water Resource and Flood Management Institutions

