

## Executive Summary

### Effectiveness of Town Planning as a Flood Prevention and Mitigation Measure

#### A. Basic Information

(1) **Audit Entities** : Ministry of the Interior, Office of the Permanent Secretary for Interior/Department of Public Works and Town & Country Planning

(2) **Audit Objectives** : The audit is primarily aimed at assessing the effectiveness of town planning measures to prevent and mitigate flooding. The objectives are as follows :

1. To assess whether or not a flood prevention and mitigation measure is regarded in the town planning
2. To assess whether Local Administration Organization (LAO) considers whether land use and the construction permit is in accordance with the town plan and other relevant regulations
3. To assess whether LAO follows up and monitors the land use and building construction is in accordance with the town plan and other relevant regulations

(3) **Audit Methods** : Audit methodology is based on results-oriented approach by gathering all of the necessary data and analyzing the evidence as follows :

1. Face to face interview
2. Analysis of document and evidence
3. Field observation
4. Analysis and comparison of inspection criteria with the facts

#### B. Audit Findings

1. Consideration for flood prevention and mitigation measures are insufficient in planning and implementation of town planning as seen from cases below ;

- Flood risk assessments have just been launched in the planning phase.
- Information regarding flood risk was not sufficiently included in the town planning which has been legally enforced.
- Transportation and Logistic Chart does not draw up specifications to prevent the construction problem that barricades waterway.

2. The law on town planning and related laws have not been enforced effectively by LAO.

- There is the risk in authorization procedure of land use and construction permit which are unlawful.

- LAO cannot control the land use and the construction of government agencies buildings.

3. Due to LAO's lack of follow up and monitoring the land use and building construction, the building is not in compliance with the law. Consequently, the building which barricaded waterway caused the flood problem.

### **C. Audit Recommendations**

1. The Department of Public Works and Town & Country Planning, Bangkok Metropolitan Administration, Pattaya City and the local administrative organizations must undertake town planning that shows the limits of risk areas and determine land use suitable for risk areas in order to get people to know information of each area. This leads to the decision to construct or use the land in accordance with area conditions, especially in risk areas.

The government should provide support in terms of resources, e.g. budget, personnel and advanced tools so that town planning can be a measure not based on the constructions to prevent and mitigate flood problems sustainably.

2. The Department of Public Works and Town & Country Planning, Bangkok Metropolitan Administration, Pattaya City and the local administrative organizations must conduct a campaign to create knowledge about town planning, the benefits of town planning to national development and the benefits of town planning to prevention and mitigation of flood problems and build awareness of the construction and land use in accordance with the Town Planning Act and other relevant laws.

Additionally, the government may consider using incentives such as tax measures to encourage the private sector to improve the constructions by increasing the open space to allow water to permeate through the ground or undertake other actions that help reduce overall flood problems for the community and society.

3. The government agencies, which utilize the land or construct infrastructure, utilities or various constructions, must use town planning including land use plan, transport plan, utility plan and open space plan for planning, working, and launching projects that are consistent and appropriate to area conditions.

4. The Office of the National Economic and Social Development Board must use town planning as information for drafting the National Economic and Social Development Plan. It serves as a framework and guidelines for national development according to the suitability of area conditions. This leads to proper national development and a balance between economic, social and environmental development.

5. The Bureau of the Budget must use town planning as part of consideration and approval of allocated budget to prevent improper public spending that is in conflict with town planning.

6. The Department of Public Works and Town & Country Planning must be the main organization for developing the Geographic Information System (GIS), which includes information on town planning, water sources, infrastructure, e.g. transport routes, sources of energy, electricity, water supply, wastewater treatment plants and drainpipes, to be used by the relevant agencies under the same database system for town planning, authorization, including supervision of construction and land use. The objective is to achieve effectiveness of authorization and monitoring of the implementation of the Town Planning Act and other relevant laws. Besides, the government should allocate the budget for maintenance, development of database system and keeping the database accurate and up-to-date at all times for the efficient use of database in the operations of the relevant agencies.

7. The Department of Public Works and Town & Country Planning must take action according to the powers and duties stipulated in the Ministerial Regulations on the Division of Government Service, Department of Public Works and Town & Country Planning, Ministry of Interior 2014 (B.E. 2557) on supervision of the use of powers under the Town Planning Act of local officials so that land use and construction of buildings conform to the Town Planning Act and other relevant laws. The Department of Public Works and Town & Country Planning should accelerate the formulation and implementation of regulations for supervising the use of powers under the Town Planning Act of local officials, including the chief executive of provincial administrative organization, the mayor, the chief executive of sub -district administrative organization, the governor of Bangkok Metropolitan Administration, the Mayor of Pattaya City and the chief local executives of other local administrative organizations established by law.

8. The governor of Bangkok Metropolitan Administration, the provincial governor and the Mayor of Pattaya City must strictly enforce the town planning. Action must be taken to accelerate the survey of construction and land use in private and government sectors, which do not conform

to the Town Planning Act and other relevant laws in the areas of responsibility, especially in the case of intrusion into natural waterways. The purpose is to optimize the drainage system, which will prevent and mitigate flood problems. Then the government should accelerate the resolution of overall problems of the country and order the relevant agencies to speed up prosecutions against the offenders.