

Assessment of Japanese and Chinese flood control measurement

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Floods are known as frequent and most devastating events worldwide. Asia continent is much affected by floods such as China, India and Bangladesh. As the occurrence of flood event has become common, flood events during previous years have raised public, political and scientific awareness of flood risk and its prevention. In recent years, flooding was happened much more frequently in China and Japan within the extreme climate changes under the ongoing globe warming. China had a long history on flood control measurement from the Great's flood control. Dujiangyan Irrigation System is a good flood control measurement case in the long history of China. Dujiangyan is an irrigation infra-structure built in 256 BC during the Warring States Period of China by the Kingdom of Qin. It is located in the Min River in Sichuan Province, China, near the capital Chengdu. It is still in use today and still irrigates over 5,300 square kilometers of land in the region. Dujiangyan have flood control system, urban water supply system and sediment transport system. The flood control history of Japan was from the flood control of Heiankyo (A.D. 794).There was a big issue that is about using Green Dam(forest dam) to control the flood without concrete dams happened in 1950s, Japan. Chinese government was change the flood control policy to use structure measurement and non-structure measurement(Fig.1) after 1998`s flood event. According to this background, we need to a system assessment of flood control policies and measurements on a historical view point. In this research, I will do historical and quantitative assessment of flood control policies through the flood control`s history. In that time, the

index of historical and quantitative assessment will include history, society, economic, environment, civil engineer and hydrology indexes to get a deep realize on the impact of flood control policies and measurement and find the advantage and disadvantage of the flood control measurement. According to this assessment and the strategic framework for integrated flood risk management(Fig.2), we can improve the flood control measurement to suit the flood disaster on the extreme climate change.

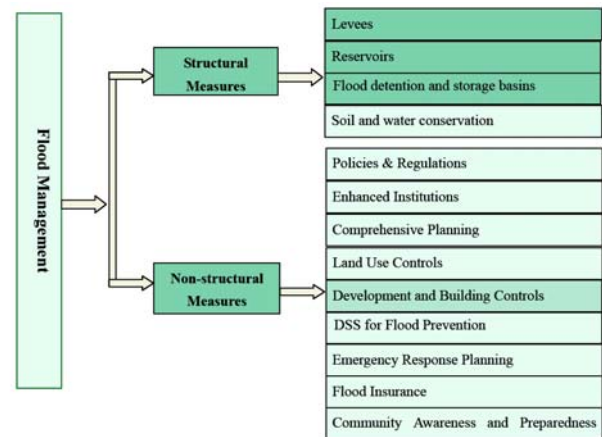


Fig.1 Structures and non-structures taken for flood management in China

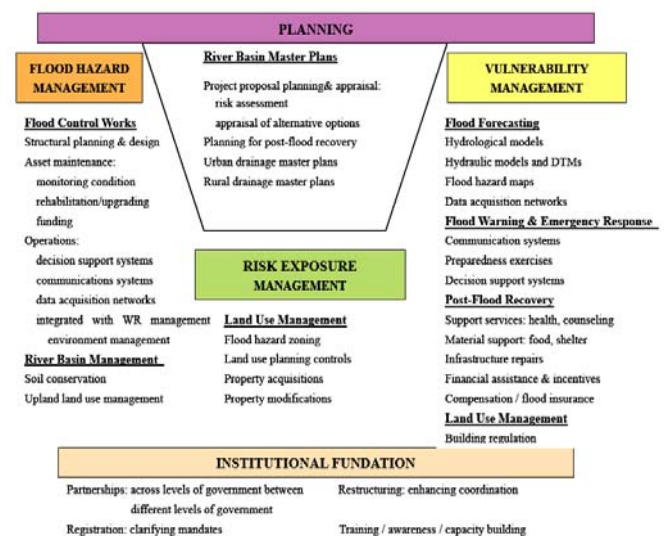


Fig.2 Strategic framework for integrated flood risk management