

Climate Change Technology Needs Assessment For Thailand Water Resource Management

Porranee Thanapakpawin*, Surajate Boonya-aroonnet, Pintip Vajarothai,
Aungkana Pratumthong, Royol Chitradon
Hydro and Agro Informatics Institute,
Ministry of Science and Technology, Thailand
porranee@haii.or.th*

Natural climate variability especially from climate change impacts and infrastructure management are the two major challenges for Thailand water resource management. Greater spatial and temporal rainfall variability such as season shift, prolonged sporadic rain, and concentrated intense rainfall results in flooding and drought problems, especially in areas with no water infrastructure. Some areas suffer both drought or flooding repeatedly, and, sometimes, in the same year. Thus, the goal of Thailand water resource management is to build water and agricultural security, using the flood and drought risk management framework. We need technologies and management that can handle all scenarios of rainfall, whether it rains above or below dam catchments or in water-user areas or whether sporadic rain occurs. In other words, Thailand needs engineering and management adaptation technology options that are flexible enough to reduce exposure, reduce sensitivity and maximize adaptive capacity to climate change risks and impacts. Framework and results of Technology Needs Assessment for water resource management sector will be demonstrated.

Keyword: Climate change adaptation, Technology needs assessment, Water resource management

