

Theme: 3. Overall performance of the Triple Helix Approach: From efficiency of factors of production to 'modes of coordination'

Paper Title: Universities as a bridge in natural disaster management: a case of the 2011 Thailand Flood¹

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The Triple Helix model has been widely adopted amongst innovation scholars as a model explaining the importance of three-pillar actors – government, universities and businesses in developing, diffusing and transforming knowledge into innovations. Yet, this influential model can be applied in analysing an issue in the area of public administration, where the role of universities as a bridge in supporting government and businesses is critical.

Adopting the Triple Helix model, this paper analyses a case of natural disaster management in Thailand – the 2011 flood. The paper argues that in managing an unprecedented disaster, the government should and needs to embrace universities in the management process. For instance, the government can work with and utilise rich resources of scientific knowledge, insightful analyses and sophisticated tools and techniques that are available in universities. Unawareness of this critical role of universities could lead to an ineffective and poor management of the disaster and also a miscommunication with businesses and residents at large as it happened during the 2011 Thailand flood.

The flood in 2011 was one of the biggest natural disasters in the country history. The losses – both economic and social – were extremely large. The poor water management of the northern upstream dams and the unprecedented high-rise water level during the monsoon season were indicated as key causes of the flood by local experts.

Prior to the flood, the country had no clear measures or authorised agencies responsible for addressing the flood efficiently and effectively. Thus, during the flood, the Thai government set up a Flood Relief Operation Center (FROC) as a central operation unit tasked with flood management and disaster reliefs. However, the FROC was ineffective in taking the leadership role especially in providing the most reliable public information on the flood situations. To complicate the situation, this crisis management turned into political issues due to the bi-partisan rivalry between the government and the Bangkok Metropolitan Administration. The Bangkok governor is from the government's opposite party i.e. Thailand Democrat Party.

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As a consequence, local businesses and residents alike needed to find information from all sources and came up with their own measures in order to minimise their losses. Those in flood prone areas built sand-bag dykes in front of their houses and properties as a protection regardless of the FROC confirmation that they were safe from the flood. In another case, those whose areas were controlled by main water gates were unwilling to allow the FROC to open the gates as planned. Compensations for the areas to be used as floodways were not clearly announced. In many ways, local businesses and residents became more worried and concerned about their own problems and protections than the overall flood situation that was presumably managed by the FROC.

During the flood period, local universities and their academic staff played a role in offering a 'prognosis' of the flood situation to general public and recommendations on alleviating the situation to the FROC. In fact, universities played an intermediary role between the government on the one hand and the businesses on the other through providing science-based analyses and evidences on the flood situation. For over a month, a TV news programme namely *Vikraw Satanakarn Nam*, i.e. analysing the flood situation gained most attentions and popularity from Bangkok residents both in inundated areas and those at risk. The programme was hosted daily by a top university professor in water resource engineering and disaster management.

Equipped with scientific data and information collected on a daily basis, the programme was presented using mostly elaborated and layman's terms with clear graphics of flood routes and maps. Hence, the Bangkok residents were able to understand their own situations greatly. This similar type of information about flood situations and warnings was not available from the national or local governments.

However, the Thai government i.e. the FROC seemed not to recognise the universities' role and therefore making less use of universities in order to bridge the understanding, knowledge and trust gap between the government and businesses in relation to the Triple Helix model. As a result, the collaboration between the government and businesses in flood management and disaster relief remained a major problem throughout the flood period.

In short, this paper adopts the Triple Helix model to analyse the natural disaster management in Thailand – the 2011 Thailand flood. It argues that universities have a role in bridging knowledge and understanding of the scientific analyses and evidences underpinning the flood management and perhaps most importantly the trust between the government and businesses in relation to the Triple Helix model.