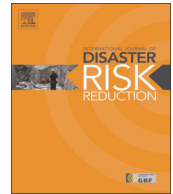


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Institutional structures underpinning flood management in Vietnam

Vu Ngoc Chau^{a,*}, John Holland^a, Sue Cassells^b^a Institute of Agriculture and Environment, Massey University, New Zealand^b School of Economics and Finance, Massey University, New Zealand

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ABSTRACT

The Germanwatch global climate risk index ([10]) ranked Vietnam the 6th country most affected by extreme weather events between 1992 and 2011. Similarly, the [35] estimated that 59 percent of Vietnam's total land area and 71 percent of its population were living with the risk of being exposed to extreme storm events and flooding. Like other countries that are prone to natural disasters, the government of Vietnam has developed extensive legislation to improve resilience to and minimise the risks posed by natural disasters.

In this study, the existing legal systems regarding flood management are reviewed and opportunities to strengthen them are identified. The legislation was reviewed in consultation with flood management specialists and government officials at the central, provincial and district levels. Local community members were also interviewed to gain insights as to how they are affected by floods and impacted by flood mitigation measures.

Whilst there are a large number of legal documents pertaining to natural disaster management, they are fragmented, overlapping and repetitive. In addition, lack of training and insufficient technical and financial support at local levels exacerbates the problems. Recommendations are made to strengthen institutional support to economic sectors and individuals who are victims of extreme flood events. These include: a shift from the current 'top-down' approach to include a 'bottom-up' approach; encouragement of transparency and accountability; decentralisation of the allocation of both technical and financial resources to improve training, particularly at the local levels and; to investigate the merits of introducing insurance schemes.

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Abbreviations: CCFSC, Central Committee for Flood and Storm Control; CCFSCSR, Commune Committee for Flood and Storm Control and Search and Rescue; CSCNDPM, Central Steering Committee for Natural Disaster Prevention and Mitigation; DARD, Provincial Department of Agriculture and Rural Development; DCFSCSR, District Committee for Flood and Storm Control and Search and Rescue; DMC, Disaster Management Centre; DMFSC, Dyke Management and Flood and Storm Control Department; LNDPM, Law on Natural Disaster Prevention and Mitigation; MARD, Ministry of Agriculture and Rural Development; MOD, Ministry of Defence; MOF, Ministry of Finance; MONRE, Ministry of Natural Resources and Environment; MPI, Ministry of Planning and Investment; NCHMF, National Centre for Hydro-Meteorological Forecasting; NCSR, National Committee for Search and Rescue; NGO, Non-governmental organisation; PCFSCSR, Provincial Committee for Flood and Storm Control and Search and Rescue; pers.comm, Personal communication; PCHMF, Provincial Centre for Hydro-Meteorological Forecasting; PPC, Provincial People's Committee

* Corresponding author.

E-mail address: c.vu@massey.ac.nz (V.N. Chau).<http://dx.doi.org/10.1016/j.ijdr.2014.10.008>

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1. Introduction

Ranked 6th amongst the world's most vulnerable countries with respect to natural disasters (on the global climate risk index of 2013 between 1992 and 2011) ([10]), the losses in both economic and human terms are a significant concern for Vietnam. Further, the [35] estimated that 59 percent of Vietnam's total land area and 71 percent of its population were living with the risk of being exposed to extreme storm events and flooding. Vietnam is located within a tropical monsoon zone, has a coastline of more than 3,400 km and a topography that makes it particularly susceptible to significant damage from extreme floods, storms and droughts ([16,20,35]). Whilst much endeavour has been made to put the best structural protection measures in place, weaknesses in both the legal system and in institutional structures hinder the ability of the government to effectively respond to emergencies.

Effective emergency response includes mitigation, preparedness, response and recovery measures ([1,28,30]). However, [2] contend that an effective legal system is an important adaptation measure, and one that enhances the likelihood of success of emergency reaction strategies. This is particularly so within the context of climate change which is characterised by both 'known' and 'unknown' uncertainties ([11,15,3]). Weak policy or poor performance may result in additional damage and increased vulnerability to natural disasters ([12]).

Natural disasters themselves also provide opportunities to learn from and improve natural disaster management systems. The learning opportunities that are exposed during and after disasters come in the form of experience, evaluation and institutional strengthening ([18,2,23]). Institutional assessment assists in defining the existing internal capacity of agencies involved in disaster management ([12]), while policy strengthening and development or, identification of gaps in particular elements of the management cycle, add to both collective and individual capability building in response to natural disasters. With the increase in the incidence of natural disasters around the globe, there has been a corresponding increase in the need to revisit and reform natural disaster management policies ([18]).

There is strong evidential support for integrating a 'bottom-up' approach on natural disaster management into the existing institutional 'top down' planning paradigm ([22,29,33]). The studies of [22] in Norway, and [17] in Indonesia both highlighted the importance of the role and capability of local authorities in natural disaster management, not just in developed but also in developing countries. The delegation of many flood impact mitigation responsibilities to local decision makers is becoming increasingly common in the United States ([4]).

The increasing incidence of climate-induced natural disasters, combined with increasing urbanisation, rapid population and economic growth, have exacerbated environmental degradation in Vietnam ([14,35,8]). Like other countries that are prone to natural disasters, Vietnam has developed extensive legislation in this area that focuses on prevention and mitigation measures ([13,6]). Despite the willingness and efforts made by the government, including structural measures and policy development, the damage caused by natural disasters remains significant, particularly in the agricultural sector ([7]). Therefore, it would appear that existing disaster and post-disaster relief policies in Vietnam have a number of limitations. This study explores the flood disaster risk management legislation in Vietnam, identifies gaps in natural disaster management policy and provides suggestions to improve the flood risk management agenda in Vietnam.

2. Research approach

The focus of this study is the flood management policies at the national level and the institutional arrangements for the implementation of these at provincial, district and commune levels. Quang Nam province (and in particular the flood-prone districts of Dien Ban, Dai Loc, Duy Xuyen and Nong Son) in the centre of the country and in the tropical monsoon zone, was chosen for this study as a type for Vietnam agriculture. In order to review existing flood management policies, these were collected from the Vietnam Government's legal document database ([24]), the Central Committee for Flood and Storm Control ([6]), the Department of Agriculture and Rural Development of the Quang Nam province and the Agriculture Divisions of the four districts. The institutional structures and the operationalisation of flood management systems at central, provincial, district and commune¹ levels of government were reviewed and individuals were consulted in each of the hierarchical levels. Further, extensive site visits were undertaken in order to become familiar with the study area. Consultation and discussions took place between October 2011 and February 2012. Finally, recommendations are made to improve the effectiveness of the flood management legislation and practices in Vietnam.

3. Current legal documents pertaining to natural disaster management in Vietnam

After independence in 1945, the Vietnam government released its first Order (Order no.70/SL) pertaining to flood management. The implementation of this order led to the establishment of the Central Committee for Dyke Maintenance, which was later replaced by the Central Committee for Flood and Storm Control (CCFSC). Almost 70 years have passed since

¹ The commune is the fourth level administrative division of Vietnam. In Quang Nam province, communes typically group between 5 and 8 villages and the number of communes within a district vary from 7 to 21.

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