

# 博士論文（要約）

TOWARDS RISK SENSITIVE PLANNING:  
ANALYSING KNOWLEDGE FLOWS FOR SPATIAL  
PLANNING AND DISASTER RISK REDUCTION AND  
MANAGEMENT (DRRM) INTEGRATION IN THE  
PHILIPPINES

（リスク対応型プランニング構築に向けて：フィリピンにおける空間  
計画と防災マネジメントの統合のための知識フローの分析）

氏 名 カイラ メイ サントス マティアス

This research examines the integration of disaster risk reduction and management (DRRM) and spatial planning whose promotion and adoption have increased in the last decade. Nonetheless, it is still believed to have garnered marginal success due to poor capacities of its key actors and stakeholders, which is often linked to availability of resources and technical capabilities.

Contrary to this, the study infers that mainstreaming success does not rely on the availability and access to resource and technical capability or skills, and that other critical factors have been overlooked in the design of the integration strategies, leading to its ineffectiveness. To substantiate this, the study looks at the case of Leyte and Metro Manila in the Philippines by analysing their knowledge flows.

The knowledge flow analysis was performed by mapping out various exchanges occurring within DRRM mainstreaming process and development of integrated DRRM and development plans. A combination of data collection (i.e. key informant interviews, participant observations and field surveys) and data analysis (i.e. coding (textual analysis and contextual content analysis), taxonomy, and social network analysis (SNA)) techniques was used.

Though its findings affirm that DRRM and planning integration influence of resources and capabilities as reported by previous researches, it dispels claims that these factors act as major influences. Based on the perception of the participants, though resources and capabilities influence mainstreaming, other factors related to bureaucracy, culture and politics are as more crucial than the former. Moreover, despite the presence of similar factors across all contexts, the importance of these factors varied from one case to another as reflected in the textual and contextual content analysis of the participant responses. This suggests that identified shared factors or components across the various cases may be utilised to create a better framework to guide the design and evaluate the performance of current and future DRRM and planning integration strategies. However, there is not a single formula to succeed, and solutions must be tailored to the local conditions in order to be effective.

These findings along with other details of this study are organised into five (5) parts:

Part 1: Introduction

Part 2: Research Framework

Part 3: Background and Context of the Study

Part 4: Case Studies

## Part 5: Conclusion

In Part 1, the mainstreaming of disaster risk reduction (DRR) into development is discussed. It traces how the integration came about, and why it is perceived as significant. This is followed by the identification of current approaches employed by various communities globally and locally, such as use of legal instruments, harmonisation of development and DRRM plans and strategies, integrating spatial planning and DRRM processes through the use of disaster and risk data, etc. The subsequent discourse centres on the latter, including concerns related to its implementation, for instance, the availability and access to reliable data, information and knowledge, and the need to build and improve technical capacities of various relevant stakeholders in order to achieve the integration effectively. These issues form part of the research problem that the study tackles. As these issues are examined, questions regarding interventions taken and their effectiveness also arise. The research seeks to answer these questions using a combination of concepts and approaches that are detailed in Part 2.

Part 2 describes the relevant concepts that are used in the study, such as the concept of knowledge as both resource and process, a perspective that allows the research to link existing interventions and issues to better understand the underlying dynamics leading to prevailing conditions. It also includes a discussion of the research framework, including how it will address the identified problems through the different techniques that were used for data collection and analysis, and illustrates how the research was designed, and carried out. The research approach was inductive, and it made use of grounded theory methods for data collection and analysis. Data were gathered through key informant interviews (KIIs), direct participant observation, and archival records review. Collected data were constantly analysed through coding, and repeatedly verified throughout the course of the whole study.

In Part 3, the background and context of the study is elaborated. It offers information that is common to all of the study sites, such as the country profile. Apart from profile description, details about the planning and DRRM systems of the country, and their integration are also presented. This paves the way for a better appreciation of the case studies that are contained in Part 4.

Several cases studies form part of this research. These are all presented in Part 4. Each of them represents a different scenario that could also be observed in other areas throughout the country. These case studies were used to better

understand the realities on the ground, and their various experiences were examined taking into consideration how they obtain and utilise relevant knowledge to inform their decisions and actions. Through a knowledge flow analysis, it analyses the potential root causes of the problems, and identifies specific factors that are perceived to have an impact on the effectiveness of the integration. It also attempts to identify potential keys to improvement that can be carried out eventually.

In the fifth (5th) and final part of this research, the study concludes with a synthesis of the various findings, and recommendations that can be utilised to design a more suitable framework that can guide future strategies.