

(続紙 1)

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論文題目	Implementation of Hyogo Framework for Action to Enhance Urban Disaster Resilience in Makati, Philippines （フィリピン・マカティ市における兵庫行動枠組の実施をもちいた都市防災能力向上に関する研究）		
（論文内容の要旨） While urban population is on the rise, human exposure to hydro-meteorological hazards also continues to rise. Disaster paradigm has been accelerated towards resilience building by reducing vulnerability and exposure, in particular since the adoption of Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA), as the global Disaster Risk Reduction (DRR) policy framework for comprehensive DRR. At the same time, DRR by local government has been strongly recognized as a major challenge. Due to a number of underlying factors, urban areas have complexity and interconnectivity of various elements which need to be considered to build resilience of urban areas to disasters. To address urban risks, local level DRR is of fundamental importance, not only because it is closer to the citizens but because it is the repository of regulatory governance functions and local knowledge that are essential for effective DRR. With the recognition to a number of challenges, the importance and the need to scale up the capacity of DRR at local government level to build urban resilience are the key incentives for this study. In this context, it is crucial to understand the challenges for local governments to enhance its resilience and capacity for disaster risk reduction, and to find out what kind of tools, a process, and a mechanism would be effective to address those challenges. In this context, the ultimate objective of the research is to present an effective model for enhancing the capacity on DRR by local governments to build resilience to disasters, so that the study will contribute to supporting local governments to take disaster risk reduction approaches in a comprehensive and sustainable manner. The Philippines was selected as a target country to analyze its DRR approach, which was followed by the detail analysis of local DRR in Makati City in the country by using the two assessment tools; HFA and CDRI. Micro level application of CDRI was conducted in 33 villages (Barangays) in Makati City which was followed by an action planning process. Building on these results, a conceptual framework consisting of three components (Tools, Process, and Mechanism) for enhancing urban resilience in Makati City was proposed. The thesis consists of eight chapters which are categorized into three parts. Part I includes chapter one, chapter two, and chapter three. This part provides the overview of the Global Framework on Disaster Risk Reduction (DRR) and Emerging Local and Urban Issues. Part II includes chapter four and five. This part takes up a case of the Philippines to discuss DRR approach in a country by reviewing its national HFA progress and reviewed the national and city levels DRR approaches by focusing on Makati City. Part III includes chapter six, chapter seven, and chapter eight. This part conducts an assessment of micro level resilience and analysis to enhance resilience in Makati City. Chapter one started as the introduction presents the background, objectives, hypothesis and research questions. This chapter briefly describes the problem statement in terms of increased human exposure to hydro-meteorological hazards and urbanization in Asia and raises the importance of local level DRR within the disaster paradigm. It also explains the research methodology, research location, process of data collection and activities. Finally it provides the structure of dissertation.			

Chapter two provides a detail overview of the Global Framework for Disaster Risk Reduction in terms of the evolution of the international agenda on DRR and Hyogo Framework for Action as the internally agreed instrument to facilitate disaster risk reduction. It also reviewed the mid-term review of the HFA progress from global and Asia regional perspectives.

Chapter three discusses and decomposes urban risks and challenges for local governments to enhance disaster risk reduction to understand what consist of these challenges together with an emerging issue of HFA implementation at local level. It also shares concrete examples for the stakeholder collaboration at local level for improvements of local DRR capacity to overcome specific challenges identified for local governments.

Chapter four takes up a case of the Philippines to discuss DRR approach in a country by reviewing its national HFA progress and by conducting a comparative analysis with the Asia and Global context. It also identified the emerging needs and focuses on local level DRR in the country.

Chapter five takes the case of Makati City in the Philippines to review the local level DRR. To review the DRR initiatives in Makati City, the original data collected through the survey of HFA local 20 tasks and the secondary data collected from the result of Makati through the methodology of “Climate Disaster Resilient Index” (CDRI) survey were used. The chapter also discusses the synergistic use of the two main tools applied in this study which are HFA as a guiding tool and CDRI as an assessment tool.

Chapter six focuses on micro level application of CDRI at Barangay (village level) in Makati City and analyses the Barangay CDRI results (all the 33 Barangays in Makati City) as the original data and Action Plans for Barangays for further enhancing DRR in Makati City.

Chapter seven provides overall analysis of key findings from previous chapters and discussed along with the three key questions of the dissertation. Finally, the chapter presents a conceptual framework for enhancing resilience in Makati City, by reflecting on the effective tools, process, and mechanism for enhancing local resilience in Makati City.

Chapter eight summarises the key findings of this research, and provides the conclusion of this dissertation. It also explores the future research scope for the area of disaster resilience by urban local governments.

(続紙 2)

(論文審査の結果の要旨)

本論文は、ローカル・レベルでの兵庫行動枠組 (Hyogo Framework for Action: HFA) の実施を通じた都市防災能力向上にかかる分析・議論を行ったものである。ケーススタディーとして、フィリピン・マカティ市において、文献調査、フィールド調査およびアンケート調査を実施し、災害に強い都市モデルを構築した。本論文における評価すべき主な点は次の通りである。

1. 防災にかかるグローバル及び地域の政策枠組み、国際的なアジェンダの進展を分析した結果、リスク軽減と適応能力向上が災害対策に取り組む際の中心的なコンセプトであり、また、HFAが防災の世界的な政策枠組み及び取り組みの主流として役割を果たしていることを明確にした。更に、HFAの実施状況について、アジア地域及び国家レベルにおいては大きく進展したが、自治体レベルでは未だ不十分であることを明らかにし、それは自治体の能力、防災対策の優先度付け、予算措置、地方分権化、関係者の協調等の要因が障害になっていることを示した。
2. マカティ市において、ローカルHFAガイド及び適応力の評価手法であるCDRI (Climate Disaster Resilience Index) の2つのツールを組み合わせた相互作用による多角的で有効的な分析を行った。具体的には、(1)マカティCDRI及びマカティ行動計画の2次データの分析、(2)ローカルHFAの20タスクの分析、(3)バランガイ (最小行政単位) においてCDRI調査及び防災行動計画作りを行った。これらの研究活動は、持続的・循環的な防災能力向上のため関係者が協働で防災力を高める市の防災調整協議会やバランガイ防災調整協議会等のローカル・プラットフォームが重要な役割を果たすことを明らかにした。
3. バランガイ・レベルでの具体的な研究活動としては、ステークホルダー及び地域防災計画の分析を行い、参加型タウンウォッチングを実施した。このような活動は、コミュニティを長期的に防災に携わってもらうための鍵となることを分析結果は明確にした。
4. 最後に、現地でHFAを効果的に実施するための3つの主要素である分析ツール (HFA及びCDRI)、循環的なプロセス、仕組みづくり (現地レベルの防災プラットフォーム) をバランス良く活用し、都市行政とバランガイが協働しながら防災力の向上を実現するモデルをマカティ市において開発した。

現地レベルにおけるHFAの実施、また、それを国家、アジア地域、グローバル・レベルの枠組みにつなげる詳細な分析事例は限られている。本論文は、マカティ市のリスク軽減の取り組みを最小行政単位や近隣住区で、新たなツール、プロセス及び仕組みをもって実施した行動を分析し、国家とローカル・レベルの防災対策の格差を明らかにした。この研究成果は、同様の特性を持つ他市町村においても適応できる内容であると考えられる。よって、本論文は、博士 (地球環境学) の学位論文として価値あるものと認める。また、平成25年2月8日、論文内容とそれに関連した事項について試問を行った結果、合格と認めた。

論文内容の要旨及び審査の結果の要旨は、本学学術情報リポジトリに掲載し、公表とする。特許申請、雑誌掲載等の関係により、学位授与後即日公表することに支障がある場合は、以下に公表可能とする日付を記入すること。

要旨公開可能日： 年 月 日以降