氏 名 ヴェン パオロ ブルーノ ヴァレンズエラ

The goal of the thesis of Mr. Valenzuela, under the title of "Challenges to Disaster Risk Governance in Rapidly Developing Megacities: Risk Perceptions of the Middle-Class and Coastal Informal Settlements in Metro Manila, Philippines", was to elucidate how urban dweller's perception of risk and resilience in a megacity interacts with urbanization and its manifestations. This was done by using land reclamation as a tangible and visible form of urbanization, which is a divisive topic in policy and academia. Understanding this allows to discuss why traditional engineering-based approaches to disaster risk reduction have failed in keeping up with the increasing complexity and uncertainty in urbanizing Asia, and outline possible solutions to such problems.

The thesis is divided into seven chapters. Chapter 1 provides an introduction to the thesis, stating its originality and detailing the research aim, problems, questions and objectives. Chapter 2 discusses the various research frameworks used: Pressure and Release Model, the Social Amplification of Risk Framework, and the Protective Action Decision Model. Chapter 2 also combines these frameworks and presents how to integrate social and temporal issues into the Multilayer Safety Protection Philosophy. Chapter 3 discusses the various methodologies employed and how they are used to achieve the research objectives. Chapters 4 and 5 presents the results. Chapter 4 focuses on the middle-class perception of risk and urbanization in a megacity and its implication towards urban development and sustainability. Chapter 5 focuses on the risk perception of impoverished coastal communities living on reclaimed land, which is used as an analogy of the tangible manifestations of urbanization. Chapter 6 compares the results of chapter 4 and 5. It discusses how the risk perception of middle-class and the impoverished coastal communities interact, influence, and impacts disaster risk reduction and climate change adaptation policies in a megacity. Finally, Chapter 7 concludes the dissertation, highlighting the doctoral dissertation's contributions, recommendations, and limitations.

On the 14<sup>th</sup> of July 2021 committee members agreed to allow the candidate to pass his defence. Committee members at this point highlighted that the amount of work the candidate did during the PhD was substantial, and that as a result many journal papers

were published. Some comments and suggestions for further improvements were made by the committee members, as summarized below:

- Description of the middle class, including cultural and social mechanisms of risk amplifications in the middle class can have a greater influence on disaster governance.
- There is potential to discuss the root causes of the problem
- Psychological mechanisms of risk perception could be a future area for research.

These were deemed minor in nature, though the candidate was asked to improve the thesis accordingly. The candidate did so, and the revised and improved thesis was circulated to committee members in track changes mode. Nevertheless, the committee approved the thesis already in their deliberations on the 14<sup>th</sup> of July, as at the time it was judged that it was already of sufficient quality (and that the comments outlined above were merely suggestions for improvement, so that the final approval was entrusted to the supervisor).

なお、本論文5章は、小貫元治、Miguel Esteban を共同著者として出版済みであるが、論 文提出者が第一著者として分析・検証および執筆を行ったもので、論文提出者の寄与は十分で ある。

よって本論文は博士(サステイナビリティ学)の学位請求論文として合格と認められる。

以上 504 words+131 字