### 博士論文審査結果報告

### Report on Ph.D. / Doctoral Dissertation Defense

National Graduate Institute for Policy Studies (GRIPS)

Associate Professor WIE Dainn

審査委員会を代表し、以下のとおり審査結果を報告します。

On behalf of the Doctoral Thesis Review Committee, I would like to report the result of the Doctoral Dissertation Defense as follows.

学位申請者氏名 Ph.D. Candidate	Chandan Sapkota				
学籍番号 ID Number	PHD15102				
プログラム名 Program	Policy Analysis Program				
審査委員会 Doctoral Thesis Review Committee	主査 Main referee	WIE Dainn		主指導教員 Main Advisor	
	審査委員 Referee	木島 陽子 KIJIMA Yoko		副指導教員 Sub Advisor	
	審査委員 Referee	山内 慎子 YAMAUCHI Chikako		副指導教員 Sub Advisor	
	審査委員 Referee	高木 佑輔 TAKAGI Yusuke		博士課程委員会委員長代理 Acting Chairperson of the Doctoral Programs Committee	
	審査委員 Referee	LEE Soohyung 西江大学校		外部審査委員 External Referee	
論文タイトル Dissertation Title	Essays on Women's Empowerment and Natural Disaster: The Case of Nepal				
(タイトル和訳)※ Title in Japanese	ネパールにおける女性のエンパワーメントと自然災害に関する研究				
学位名 Degree Title	博士(開発経済学)Ph.D. in Development Economics				
論文提出日 Submission Date of the Draft Dissertation	2019年10月14日		論文審查会開作 Date of the Doctoral Review Commit	Thesis	2019年11月11日
論文発表会開催日 Date of the Defense	2019年11月11日		論文最終版提出日 Submission Date of the Final Dissertation		2019年12月4日
審査結果 Result	合格 Pass		不合格 Failure		_

※ タイトルが英文の場合、文部科学省に報告するため、和訳を付してください

Please add a Japanese title that will be reported to MEXT.

#### 1. 論文要旨 Thesis overview and summary of the presentation.

The dissertation examines two major social issues in Nepal: outmigration and natural disaster. Outmigration is an increasing trend in many developing countries. In Nepal, where remittances exceed 20% of GDP, outmigration is dominated by male household members due to cultural and legal constraints on women. Various social impacts of outmigration are well examined in the literature; however, the impact of male-dominated outmigration on women's empowerment and employment is relatively undocumented.

Natural disasters are one of the major obstacles in developing countries. Nepal lies in one of the most seismically active regions in the world and remains vulnerable to earthquakes caused by the collision between the Indian and the Eurasian continental plates in the Himalay. A catastrophic 7.6 magnitude earthquake on 25 April 2015 resulted in widespread loss of lives and properties, disrupted public infrastructure and services, and dented economic growth. Although there is ample literature on the impact of natural disasters on a range of outcome variables over medium to long run, there are limited studies on the impact of a large earthquake on private and public coping strategies, especially in response to loss of properties or lives, in the short-term.

The dissertation provides brief overview in Chapter 1. Chapter 2 of the dissertation investigates the impact of male outmigration on women's employment and empowerment using DHS (Demographic and Health Surveys) data in Nepal. The chapter employs ethnicity-specific migration network and favorable rainfall shock as instruments to address endogeneity in male outmigration. Empirical evidence presented in the chapter shows that married women in households with male out-migrants are more likely to be self-employed. These women are also less likely to be in polygamous relationships and more likely to have the final say on their own health issues. However, further investigation demonstrates that these women are less likely to have freedom to visit their family or relatives, which is probably due to increased cohabitation

with their parents-in-law.

Chapter 3 of the dissertation focuses on the impact of aforementioned earthquake in Nepal on private and public responses using unique census data. To address the endogeneity of severity of housing damage, the thesis employs distance of ward from the epicenter of the earthquake as an instrumental variable. The empirical evidence presented in the chapter suggests that the severity of housing damage did not drive changes in education, access to health care, and employment due to earthquake. By controlling for property damage by employing house fixed effects, the chapter also shows that having a dead or injured household member leads household members to drop out of school and quit a job.

The Chapter 4 provides supplementary analysis on the impact of the earthquake on adult and children's health outcomes, especially those related to malnutrition. Chapter 5 concludes the dissertation with discussion of relevant policies and prospects for future research. The thesis suggests policies that promote vocational education and training that enhance women's entrepreneurship and decision-making ability. The thesis also calls for immediate policy actions such as well-targeted and flexible social assistance programs for vulnerable population due to natural disasters.

# 2. 審查報告 Notes from the Doctoral Thesis Review Committee (including changes required to the thesis by the referees)

Among the members of the doctoral thesis review committee, there was a general consensus about the importance of topics and value of the findings. The members also shared the same impression that both the dissertation and the presentation at the defense were well-organized and clear. However, reviewers also made several major questions and comments as follows:

- 1. Can the dissertation provide policy suggestions specifically for women empowerment in the context of huge male-outmigration?
- 2. Can the dissertation elaborate detailed background of demand for male outmigration from destination countries?
- 3. Does survey data include information regarding private transfer or remittances each household receives? It would be nice to examine alternative mechanisms that people use to cope with natural disaster. If not, please provide more careful interpretation regarding findings.
- 4. Please elaborate more about limitations of previous literature and new findings of the thesis compared to previous ones. By doing so, thesis can better emphasize its own contributions to the relevant literature.
- 5. Please provide more explanation/justification about outcome variables in Chapter 2 to show that these measures truly reflect women's empowerment.
- 6. Try different samples to run regressions to show robustness of findings in Chapter 2 of the thesis.
- 7. To address false discovery problem in case of multiple hypothesis testing, please consider employing q-value rather than p-value.
- 8. Please provide accurate interpretation regarding the impact of earthquake. As estimated impact of natural disaster is relative impact on severely affected people compared to less affected people.
- 9. Please provide more justification/explanation for health-related outcome variables presented in Chapter 4.

The members of the committee reached conclusions that revisions should be made following these comments, and that the members would check a revised version within about a week after its submission.

## 3. 最終提出論文確認結果 Confirmation by the Main Referee that changes have been done to the satisfaction of the referees

For one week after the defense, Mr. Chandan Sapkota revised thesis and main adviser checked the revision process frequently to make sure all the comments are properly addressed. One week after the defense, the revised version submitted by the candidate was sent to the committee members. They checked the new version and found that the revisions were made appropriately. Thus, they left the final check entirely to the main adviser. The main adviser checked the final version on November 26, 2019 and found it satisfactory.

### 4. 最終審査結果 Final recommendation

The doctoral thesis review committee recommends that GRIPS award the degree of Ph.D. in Development Economics to Mr. Chandan Sapkota.