

INTEGRATING SOCIAL AND AGRICULTURE SCIENCE: BUILDING THE FOUNDATION FOR INTERDISCIPLINARY RESEARCH IN NEPAL

Workshop Report



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Fulbari, Chitwan, Nepal

2014 Stakeholder Workshop

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1. INTRODUCTION

This report documents events of the stakeholder workshop entitled, **“Integrating Social and Agriculture Science: Building the Foundation for Interdisciplinary Research in Nepal.”** This workshop was jointly organized by the Institute for Social and Environmental Research-Nepal (ISER-N), the Agriculture and Forestry University (AFU) in Nepal, and the Population Studies Center at the University of Michigan, USA (Annex A). This workshop was organized for the project entitled, “Labour Outmigration, Agricultural Productivity and Food Security,” funded by the Economic and Social Research Council (ESRC) under Award No. ES/L012065/1, DFID-ESRC Growth Research Programme, UK. The workshop was held on November 30, 2014 at Hotel Himalaya in Lalitpur, Nepal.

The purpose of this report is to document and summarize workshop activities. The report consists of two parts: the Program and the Annexes. The Program section describes the background and objectives of the workshop. It also provides a brief overview of each portion of the workshop program. The Annexes provide detailed information about collaborating partners, the workshop schedule, a list of participants, and a list of presentations.

2. THE PROGRAM

2.1 Background

Nepal, predominately an agricultural country, is currently experiencing unprecedented levels of outmigration and rapidly changing agricultural practices. In 2013, 232 million people (3.2 percent of the world population) were international migrants (UNDESA 2013), with South Asians among the largest group of migrants (36 million in 2013) living outside their home country. In addition, domestic migrants also constitute a significant proportion of the world’s population. In 2010, 11 percent of the total population moved internally (UNDESA 2011). Because of the high prevalence of migrants and persistent food scarcity in most poor parts of the world, population mobility and agricultural productivity are key global concerns in scholarly and policy arenas.



International migration from Nepal has dramatically increased from nearly 200,000 in 2006/2007 to over 300,000 in 2011/2012 per year. Although it is difficult to gauge the number of Nepalis who have migrated outside the country, recent estimates suggest that as many as 3 million Nepalis, or about 11% of the total population, are now living abroad in more than 100 countries. Moreover, migrant remittances are common in Nepal. It is estimated that these remittances account for up to 30% of Nepal’s economy and are received by one-third of all households.

Additionally, in recent years many farm households have been transitioning away from labor intensive farming to commercialized farming systems. These systems promote increased use of farm technologies and have led some households to stop farming altogether. The proportion of Nepal’s population employed in agriculture has declined from 76 percent in 1998 to 60 percent in

2008 (Central Bureau of Statistics 1999, 2009). Nepal is one of the most food insecure countries in the world, ranking 157 among 187 countries (UNDP 2011). Approximately 25 percent of Nepal's population lives below the poverty line (Joshi, Conroy and Witcombe 2012). In 2012, 38 of Nepal's 75 districts were characterized as food insecure (Ministry of Agriculture and Cooperatives 2012).

Given this background, our study, "Outmigration, Agricultural Productivity and Food Security," aims to begin filling the gap in our understanding of the relationship between migration and agriculture (Figure 1). Moreover, its focus on Nepal aims to provide crucial information from an agricultural setting persistently facing food security problems.

Specifically, this study addresses three questions:

1. *To what extent does labor outmigration influence (i) agricultural productivity, (ii) women's participation in farming, and (iii) exit from farming?*
2. *To what extent do remittances influence (i) farm technology use, (ii) women's participation in farming, and (iii) exit from farming?*
3. *To what extent does farm technology use and exit from farming influence subsequent outmigration?*

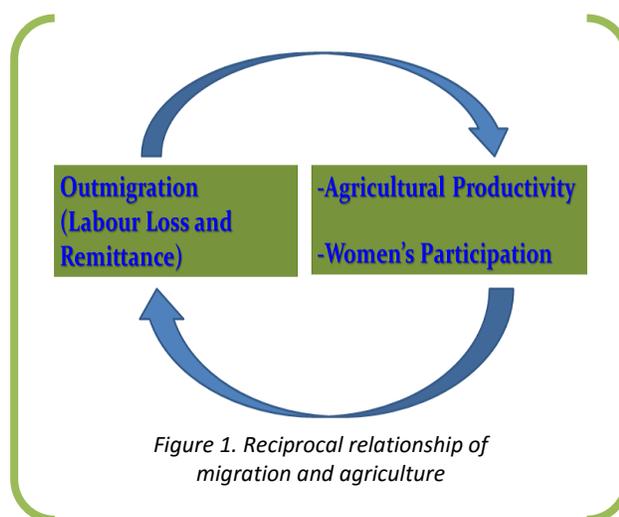


Figure 1. Reciprocal relationship of migration and agriculture

2.2 Objective

The workshop was organized to foster intellectual collaboration among potential consumers of evidence generated through rigorous scientific investigation. This collaboration is crucial for building a foundation for interdisciplinary research, education, and public policy. The workshop focused on capacity building and receiving feedback on our three substantive questions, the research design, and the dissemination plan. To facilitate cross-disciplinary interaction among scientists and research scholars, we used a research program on migration and agriculture as an example.

2.3 Stakeholders Workshop Program Overview

A one-day workshop entitled "**Integrating Social and Agriculture Science: Building the Foundation for Interdisciplinary Research in Nepal**" was held on November 30th, 2014 at Hotel Himalaya in Lalitpur. A total of 36 (of 42 invited) scholars representing government and non-governmental organizations attended the stakeholders workshop. Invited scholars are engaged in social science research, agricultural research and extension, policy formulation, and program implementation. Dr. Kailash Pyakuryal, the Honorable Vice Chancellor of the Agriculture and Forestry University in Nepal, was the Guest of Honor. Below we describe the Inaugural Session, Technical Session and Feedback Session of the workshop.

3. INAUGURAL SESSION

The opening session commenced with participant registration, followed by a formal seating of the Guest of Honor and invited guests.

3.1 Welcome Remarks and Introduction

Dr. Naba Raj Devkota, Director of Research and Extension at Agriculture and Forestry University (AFU) in Nepal, welcomed the distinguished guests and participants on behalf of the organizing committee. Dr. Devkota discussed the importance of the workshop and highlighted the significance of the integration of social and agricultural sciences as a foundation for building interdisciplinary research in Nepal. Dr. Devkota expressed his hope and confidence in developing joint collaboration among interested individuals/scholars and institutions as the ultimate goal. Following his welcoming remarks, workshop participants were introduced to one another.



Dr. Devkota delivering welcoming remarks.

3.2 Program Overview

Dr. Dirgha Jibi Ghimire, Executive Director of the Institute of Social and Environmental Research in Nepal (ISER-N) and the Principal Investigator of the DFID-ESRC Growth Research Programme, "Outmigration, Agricultural Productivity and Food Security," presented the program overview including the timing, sequencing, and format of the workshop.



Dr. Ghimire providing the program overview.

Dr. Ghimire noted that the goal of the workshop is "to foster intellectual interaction among potential consumers of evidence generated through rigorous scientific investigation in building the foundation for interdisciplinary research, education, and public policy."

He discussed aims of the project, emphasizing labor outmigration and its potential impact on agricultural productivity and women's time use as well as its subsequent implications on food security in a rapidly changing agrarian context. Dr. Ghimire highlighted contributions of existing studies on migration research, discussed

gaps in literature and how the project's research questions (outlined in section 2.1) aim to begin filling these gaps. Finally, he highlighted the methodological challenges of answering these research questions and discussed issues in causality as the migration decision is both influenced by and influences several other factors posing potential reciprocal causality (Figure 1).

Dr. Ghimire then explored the various approaches this study adopted to address such challenges. These approaches include the use of longitudinal data with prospective panel design, and consideration of household-level fixed effects. Finally, Dr. Ghimire provided information about the study setting, its design, and the ultimate goals of the study.

3.3 The Guest of Honor

Dr. Tek Bahadur Gurung, Executive Director of the Nepal Agriculture Research Council (NARC), introduced the Guest of Honor, Dr. Kailash Pyakuryal. Dr. Gurung praised the efforts by ISER-N and their success in bringing together social and agricultural scientists to collaborate on interdisciplinary research. Dr. Gurung was pleased with the attendance of the workshop and encouraged the continuation of these interdisciplinary research efforts.



Dr. Gurung presenting the Guest of Honor.

3.4 The Keynote Address

Dr. Kailash Pyakuryal, Vice Chancellor of the Agriculture and Forestry University in Nepal, delivered the Keynote Address. Dr. Pyakuryal praised ISER-N's efforts to enhance collaboration among institutions such as AFU, ISER-N, UM, and NARC for evidence-based interdisciplinary research and education.

Dr. Pyakuryal emphasized the importance of integrating social science and agricultural science in the Nepali context as these two fields are highly interdependent. He stressed that

without this multidisciplinary approach, both fields remain unable to maximize their potential contributions to the nation. He noted that this workshop is vital to leading Nepal in that direction. Dr. Pyakuryal emphasized the timeliness of this workshop and hoped for continued interest among individual scholars and institutions.

Finally, he noted that collaboration for meaningful contributions towards achieving evidence-based policy formulation will help solve the food insecurity problem that the nation of Nepal faces. Dr. Pyakuryal expressed his commitment on behalf of AFU to further this initiative in the days to come.



Dr. Pyakuryal delivering the Keynote Address.

4. THE PARTICIPANTS

A total of 36 scholars attended and actively engaged in the workshop. Invitations were extended to 42 individuals involved in social science, agricultural research and extension, policy formulation, and program implementation representing government as well as non-governmental organizations (Annex C).



Participants attending the Stakeholder's Workshop.

5. TECHNICAL SESSION

The opening session was followed by a technical session, during which three papers were presented. Each presentation was followed by an expert commentator. A brief overview of each presentation and expert comments follows.

5.1 Agricultural Change, Outmigration and Food Security

Dr. Prem Bhandari, Senior Research Scientist at the Institute for Social and Environmental Research-Nepal (ISER-N) and Assistant Research Scientist at the Population Studies Center, University of Michigan, USA

Dr. Prem Bhandari initiated the technical session with his presentation entitled, "Agricultural Change, Outmigration and Food Security." Dr. Bhandari began with background

explaining the current situation of migration in Nepal and how different researchers have reported the relationship between agricultural change and outmigration. First, using the labor substitution argument, he explained how changes in agriculture through the use of labor-saving technologies may influence labor outmigration in a setting such as Nepal. Next, he described the relationship between outmigration and agricultural productivity through two mechanisms independent of one another. First, the mechanism of labor loss, using the lost labor hypothesis, describes a negative relationship. Second, the use of remittances, with the credit hypothesis, describes a positive relationship.

Dr. Bhandari described the study setting of the Western Chitwan Valley and the collection of measures from the Chitwan Valley Family Study (CVFS). The presentation mainly focused on measures of outmigration, remittances, farm technology use, exit from farming, and agricultural productivity. Dr. Bhandari concluded with an explanation of the multivariate analyses that would be done to understand the consequences of agricultural change in labor outmigration and agricultural productivity.



Expert Commentator

Dr. Ganesh Gurung, Chair of the Nepal Institute of Development Studies, Kathmandu

Dr. Gurung's feedback and comments on Dr. Bhandari's presentation included the following:

- He questioned whether the relationships between domestic outmigration as well as international outmigration and agricultural productivity would be similar given that most domestic migrants are seasonal in nature.
- He recommended that the social cost of outmigration be incorporated in this study. Similarly, Dr.

Gurung added that a focus on return migration would be interesting, as migrants also bring skills, knowledge, entrepreneurship, and money.

- He discussed the importance of understanding why people do not migrate.
- Citing the Department of Agriculture, he remarked that increases in food production may be due to increases in areas being cultivated. If so, he questioned how outmigration could influence productivity as out-migrating farmers are leaving their land fallow or exiting farming altogether.
- Mentioning that 69% of remittances are used for consumption and only the remaining 31% are used for production, he questioned how this has and will impact agricultural production and productivity.

5.2 Rural Labor Outmigration and Agriculture Productivity

Dr. Humnath Bhandari, Agricultural Economist for International Rice Research Institute, Bangladesh and Research Scientist, Institute for Social and Environmental Research-Nepal

Opening his presentation with the trend of population growth, food consumption, and share of crops in total cropped area, Dr. Humnath Bhandari highlighted the gap in yield of cereal crops in South Asia. Moreover, he discussed the trend that Nepal has the lowest yield reported for rice, wheat, and maize. He also provided comparative scenarios of population growth rates and cereal production growth rates showing that Nepal lags behind; in other South Asian countries, cereal production growth rates are much higher than the population growth rates.

Dr. Bhandari proceeded with a conceptual framework demonstrating the relationship between migration and agricultural productivity and proposed research hypotheses regarding this relationship. Some hypotheses included: outmigration decreases agricultural productivity and migration increases adoption of improved farm technologies; migration doesn't affect crop production efficiency; remittances increase adoption of improved farm technology and crop diversification; and remittances and migration increase exits from farming.

Dr. Bhandari then briefly explained the sampling design for farm household surveys, including plans to collect data for three seasons. He focused on the measurement methods of agricultural production, explaining how to determine yield and describing the Crop Cutting Experiment (CCE) method: a land sample size of 1m*1m or 5m*5m, depending on different field conditions. Finally, Dr. Bhandari described the potential models used to study migration's effects on adoption of improved farm technology and on crop production efficiency.



Expert Commentator

Dr. Devendra Gauchan, Division Chief (Senior Scientist, Agricultural Economist), Socioeconomics and Agricultural Research Policy Division of the Nepal Agricultural Research Council, Khumaltar, Lalitpur

Dr. Gauchan commented on Dr. Bhandari's presentation. He first clarified some assumptions regarding rural-urban migration. For instance, Dr. Gauchan discussed that migration to urban areas is not due to surplus labor in rural areas, but rather due to greater income opportunities and better perceived welfare in the urban areas. He discussed that

outmigration can affect agricultural production through both labor and capital markets but that its influence is complex and ambiguous. However, he indicated that the literature has not found any support for the fact that migration discourages production. He emphasized that this relationship may depend on the context of farming systems, market access, irrigation availability, soil fertility, and socio-economy. Specifically, he mentioned the points below:

- **In market accessible irrigated areas with better soil fertility**, substitution of labor with farm machinery and modern technologies increases agricultural productivity and also increases efficiency in production.
- **In remote market inaccessible rain-fed areas with poor soil fertility** there is less interest and emphasis on farming, resulting in low cropping intensity, low productivity and, in extreme cases, abandonment of land due to outmigration.
- **In locations with a higher proportion of educated youth and better social networks**, when migrating destinations are more likely to have outmigration of youth, the effect is ambiguous, which is determined by the above two factors: market access and favorable land holding.

Additionally, he presented a framework that links outmigration with agricultural productivity and noted that increases in agricultural productivity and income will encourage investment in farms through the use of farm technologies. At the same time, he hypothesized that outmigration will also influence investment in farms through remittances.

Next, Dr. Gauchan discussed the two most commonly used productivity measurement methods: partial factor productivity (PFP) and total factor productivity (TFP). First discussing the weaknesses of the use of PFP, he then provided approaches to the measurement of TFP—both non-parametric approaches (e.g. Malmquist-type indices, Data Enveloping Analysis (DEA)) as well as parametric approaches (e.g. Econometric methods, Engineering approaches, Average Production Function, Stochastic Frontier analysis, etc.). In highlighting the potential challenges for measurement, Dr. Gauchan mentioned other various approaches that could be used in this study.

Dr. Gauchan then briefed participants on the gaps and weaknesses in Dr. Humnath Bhandari's work, with a major issue being the limited data. Finally, Dr. Gauchan emphasized the importance and relevance of the current study to explore these issues.

Dr. Gauchan concluded his comments emphasizing the relevance and importance of the current study of the relationship between outmigration and agricultural productivity. He also suggested that the team expand the study area to more remote market areas to achieve a better representation of Nepal and to incorporate cash crops, vegetable farming, poultry, and fish farming in addition to the study's measurement of main crops.

5.3 Labor Outmigration, Agriculture and Women's Role in Agriculture

Ms. Nima Acharya (Adhikari), Research Officer at the Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan

Ms. Acharya presented on the theme, "Labor Outmigration, Agriculture and Women's Role in Agriculture." She began by highlighting that migration in Nepal is predominantly a male phenomenon. Then, she described that as males out-migrate, females and children left behind experience hardships. She presented evidence from several sources showing increases in women's

and children's work burden due to increased male outmigration. Additionally, Ms. Acharya described the potential for female empowerment due to male outmigration.

Continuing this discussion, Ms. Acharya spoke about the extent to which labor outmigration influences women's participation in farming and if it influences women empowerment. She described her use of a multi-pronged research strategy for this study by combining data from the existing CVFS panel study and new data. She then concluded the presentation with her expectations of obtaining evidence of labor outmigration's consequences on women's time use and empowerment from the study.



Expert Commentator

Dr. Bijaya Bajracharya, Program Coordinator of the Lutheran World Federation-Nepal, Kathmandu

Dr. Bijaya Bajracharya expressed her appreciation to the research team for conducting such an interdisciplinary and multilevel study with the potential to contribute new theories to the existing New Economics of Labor Outmigration (NELM) literatures. She proceeded to offer suggestions to improve the research from new perspectives on socio-cultural context (including norms) of communities/societies, and caste/ethnic diversity of the households. Additionally, she discussed a theoretical framework involving gender

differences in decision-making and attitudes and behaviors of service providers.

She also provided suggestions for studying outmigration's effects on women in terms six type of assets: Financial, Physical, Natural, Human, Social, and Political. Dr. Bajracharya then presented her queries to NARC regarding technologies and equipment appropriate for women developed by NARC; those not appropriate and reasons; and new types of technologies and equipment needed. Finally, she asked the research team questions regarding the involvement of relevant actors in the review process and if research participants would have opportunities to be involved with and be aware of the research findings.

6. FEEDBACK SESSION

Workshop participants raised various issues on the thematic presentations. Many of the suggestions and comments were discussed in the workshop. Dr. Dirgha Ghimire led the feedback session with an objective to answer the queries of the participants related to the study. He also

expressed his sincere thanks to all of the participants for their active participation and valuable feedback.



Floor discussions – participants providing comments and suggestions.

A synopsis of the major discussion, with identified sub-topics in brackets, is as follows:

- Mr. Rishi Kattel noted that annual income from agriculture could be a better measure of food security than crop production or crop productivity. [FOOD SECURITY]
- Dr. Netra Timilsina expressed that the penetration of a market due to globalization may have effects on crop production or may even lead to exit from farming. Dr. Timilsina used the example of land commodification leading to exits from farming, stating that 35% of farmers in Kavre and 30% in Baglung have already exited farming. Additionally, considering the importance of who migrates and the different effects on subsistence and commercial-based farming, he questioned, “what types of people migrate?” [OUTMIGRATION AND AGRICULTURE]
- Ms. Yamuna Ghale added that of Nepal’s ethnic groups, Dalits and Janajatis migrate the most. She also emphasized the importance of understanding the impact of male outmigration on the psychological wellbeing of those left behind (particularly women). [WOMEN’S ROLE]
- Mr. Ananta Ghimire asked about the time frame of this project and whether every goal discussed in the presentations could be successfully completed with a tangible impact. He also inquired about the makeup of the control groups and the explanations behind the hypotheses developed in the presentations. [METHODOLOGICAL]

- Dr. Meeta Pradhan first asked whether remittances have been used in farm technologies. Then, she suggested conducting qualitative interviews with women to learn more about their evolving roles, attitudes, and feelings of empowerment. [WOMEN'S ROLE AND EMPOWERMENT]
- Dr. Pradhan expressed her doubt over finding enough migrant households. Moreover, she suggested expanding the measures to include empowerment, commitment within households, and burden when we examine participation in farming and decision making. [WOMEN'S ROLE AND EMPOWERMENT]
- Mr. Dilli Adhikari noted the different roles of outmigration and remittances on agriculture vs. non-agriculture households; well-off vs. poor households; literate vs. illiterate migrants, long-term vs. short-term migrants and similar comparisons. [OUTMIGRATION]
- Mr. Adhikari, when discussing food security, mentioned food diversification and changes in food diversification due to migration and remittances. [FOOD SECURITY]
- Dr. Durga Devkota expressed her concerns about missing the impacts of migration or remittances if we included only major crops in analyses, as farmers are increasingly cultivating buckwheat, lentil, mustard and other crops. Moreover, she spoke about the significance of migration and remittances on fishery, dairy, poultry and other major products. [OUTMIGRATION PRODUCTIVITY]
- Ms. Sudha Sapkota inquired whether crop consumption diversification is a better measure of crop production diversification. [METHODOLOGICAL]
- Dr. Usha Jha noted that a better measure of female empowerment would be based on the Women Empowerment in Agriculture Index (WEAI) from the International Food Policy Research Institute (IFPRI). Dr. Jha mentioned 5 pillars of female empowerment: role in household decision making, access to productive capital, adequacy of income to meet household needs, individual leadership and influence in the community, and time allocation. [WOMEN'S ROLE AND EMPOWERMENT]
- Dr. Yamuna Ghale expressed her views on how to maximize women's empowerment for Janajatis and other ethnic groups in terms of strategic choices such as property rights and property transfers. [WOMEN'S ROLE AND EMPOWERMENT]
- Ms. Yashoda Shrestha commented that both positive and negative impacts of migration should be explored. Specifically, she asked about considering safe migration, self-respect, and dignity. Moreover, she asked if we are considering if political instability has been responsible for migration of young folks. [OUTMIGRATION]

- Ms. Shrestha also discussed gender-based violence as a result of outmigration and asked “how are we going to communicate with the policy makers?” [WOMEN’S ROLE AND EMPOWERMENT]
- Dr. Meeta Pradhan expressed her frustration over minimal discussion of and importance given to the role of women in agriculture and their empowerment as a result of male outmigration. She further questioned how the study will measure women’s empowerment as that aspect seemed to be missing in the project. [WOMEN’S ROLE AND EMPOWERMENT]
- Dr. Pradhan asked several other questions, including: What about the feminization of agriculture and gender inequality due to outmigration? Who is working on the farm— women, children, and the elderly? In the hills, are women reviving the perma system of labor sharing? What are the alternatives? We talk about women’s time use in agriculture, but what about their time use in other areas of the household economy? What is the role of women in the decision to use technologies? [WOMEN’S ROLE AND EMPOWERMENT]
- Dr. Netra Timilsina asked how we can know if women’s empowerment is due to outmigration of males, outmigration of women themselves, or something else entirely? Moreover, he asked how we know that remittances may change women’s empowerment without knowing what the women are doing with the remittances and how specifically they have changed their roles. [WOMEN’S ROLE AND EMPOWERMENT]

7. CLOSING REMARKS

Dr. Dharma Raj Dangol, Chair of the Institute for Social and Environmental Research-Nepal concluded the workshop. Dr. Dangol congratulated the organizers in successfully coordinating the workshop. He expressed his sincere gratitude to all participants for their engagement and making the program a success, as the workshop would not have been possible without their presence. Dr. Dangol reiterated his commitment to the workshop’s goals and applauded the participants’ effort to foster intellectual interaction among potential consumers of evidence generated through rigorous scientific investigation. This, he closed, will be the foundation for interdisciplinary research, education, and public policy.



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ANNEXES

ANNEX A. Collaborating Partners

Institute for Social and Environmental Research – Nepal (ISER-N)

The Institute for Social and Environmental Research (ISER-N) (<http://isernepal.org.np/>) specializes



in large-scale survey administration. It is a premier research and development organization dedicated to high quality research, scientific capacity building, and evidence-based policy formulation. ISER-N possesses world class data collection expertise, research infrastructure, and an extensive collaborative network of both national and international experts.

Working with leading research

organizations and universities around the globe, ISER-N has completed well over three dozen social and ecological studies resulting in the highest quality multilevel (communities, organizations, households and individual level) panel data. This work includes topics regarding social change, family dynamics, population mobility, health and wellbeing, household structure, finances and household consumption, and environment dynamics and quality. ISER-N uses multimode mixed method approaches to design and validate survey measures, including specialized procedures to assure independent measurements from co-residing husbands, wives and children. Our multimode mixed method data collection utilizes state-of-the-art, cutting-edge technologies including Computer Assisted Personal Interviewing (CAPI) with a centrally controlled sample management system capable of delivering real time data. This also includes para-data (data on data collection activities), text message surveys using mobile phones, telephone surveys, biomarker specimens, air, water and soil quality, GPS/GIS, and camera trapping and remote sensing (satellite images). The surveys conducted so far include more than 23,000 household survey interviews, 76,000 individual interviews, 239,000 household demographic and event registration interviews, 380,000 contraceptive use interviews and 5,800 community and institutional interviews. All of the data have been digitized and released to the scientific community for analysis with appropriate protection of respondents' confidentiality. The results of these surveys have been published in over 100 research articles in world leading peer-reviewed journals. These include several substantive and methodological papers on survey research and data collection methods co-authored by ISER-N researchers and staff.

Agriculture and Forestry University (AFU)

The Agriculture and Forestry University (AFU) (<http://www.afu.edu.np/>) was established as a result of a bill enacted by the Nepalese Parliament in June of 2010. AFU is located in Rampur, Chitwan and consists of two campuses under Tribhuvan University: the Agriculture Campus in Rampur, Chitwan and the Forestry



Campus in Hetauda, Makawanpur. The university complex of AFU and its central office are in Rampur, Chitwan. Nepal has high expectations from AFU in its work related to the green revolution, the white revolution and in its efforts to improve the livelihood of farming communities and help them receive better benefits from the environment. It is widely believed that this university will be instrumental in transforming traditional and subsistence farming systems into a vibrant professional, commercial and an industrial enterprise which will enhance food security and economic growth and sustainable development.

Nepal Agricultural Research Council (NARC)

The Nepal Agricultural Research Council (NARC) (<http://narc.gov.np/about/index.php>) was established in 1991 as an autonomous organization under the "Nepal Agricultural Research Council Act - 1991" to conduct agricultural research in the country to improve the economic status of the people. The objectives of NARC are: (a) to conduct qualitative studies on different aspects of agriculture; (b) to identify the existing problems in agriculture and find solutions; and (c) to assist the government in forming agricultural policies and strategies. Major functions and responsibilities of NARC are to: (a) conduct qualitative agricultural research required for national agricultural policies; (b) prioritize studies and research to be conducted; (c) provide research and consultancy services to the clients; (d) coordinate, monitor and evaluate the agricultural research activities in Nepal; and (f) document the research activities.

Society, Population and Environment (SPE) Program, Institute for Social Research (ISR), University of Michigan

ISR's program in Society, Population, and Environment (<http://spe.psc.isr.umich.edu/>) focuses on social change and social issues worldwide, with long-term programs of research in both North America and South Asia. The SPE program is organized around four themes:

- Social Organization, Social Relationships, and Social Psychology
- Population Dynamics, and Family Change
- Environmental Change
- New Methods for Social Research

SPE also involves substantial educational activities at the post-doctoral, doctoral, and undergraduate levels. This program is part of both ISR's Population Studies Center and ISR's Survey Research Center.



ANNEX B. Stakeholder Workshop Schedule (November 30, 2014)

Time	Particulars
08:30-09:00	Arrival, Registration and Tea/Coffee
09:00-09:30	Welcome Remarks and Introduction ~ Dr. N.R. Devkota, Director of Research and Extension, Agriculture and Forestry, University, Rampur, Chitwan
09:30-10:00	Overview of the Program ~ Dr. D.J. Ghimire, Director, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan and Research Associate Professor, Population Studies Center, University of Michigan, USA
10:00-10:10	Guest of Honor ~ Dr. Tek Bahadur Gurung, Executive Director, Nepal Agriculture Research Council, Kathmandu
10:10-10:20	Guest of Honor [In absentia] ~ Dr. Yubak Dhoj GC, Director General, Department of Agriculture, Kathmandu
10:20-10:30	Keynote Address ~ Dr. Kailash Pyakuryal, Vice Chancellor, Agriculture and Forestry University, Rampur, Chitwan
10:30-11:00	Break and Tea/Coffee
11:00-11:10	Thematic Presentation 1: Labor Outmigration ~ Dr. Prem Bhandari, Senior Research Scientist, Institute for Social and Environmental Research-Nepal (ISER-N), Fulbari, Chitwan and Assistant Research Scientist, Population Studies Center, University of Michigan, USA
11:10-11:30	Expert Commentary ~ Dr. Ganesh Gurung, Chair, Nepal Institute of Development Studies, Kathmandu
11:30-11:40	Thematic Presentation 2: Agriculture Productivity ~ Dr. Humnath Bhandari, Agricultural Economist, International Rice Research Institute, Bangladesh
11:40-12:00	Expert Commentary ~ Dr. Devendra Gauchan, Senior Scientist (Agricultural Economist), Nepal Agricultural Research Council, Kathmandu
12:00-12:10	Thematic Presentation 3: Labor Outmigration, Agriculture and Women's Role in Agriculture ~ Ms. Nima Acharya (Adhikari), Research Officer, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan
12:10-12:30	Expert Commentary ~ Dr. Bijaya Bajracharaya, Programme Coordinator, The Lutheran World Federation -Nepal, Kathmandu
12:30-12:50	Feedback and Discussion ~ Dr. D.J. Ghimire, Director, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan and Research Associate Professor, Population Studies Center, University of Michigan, USA
12:50-13:00	Closing Remarks ~ Dr. D.R. Dangol, Chair, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan
13:00	Lunch

ANNEX C. List of Participants

	Name	Affiliation and Organization
1	Mr. Ananta Ghimire	Agronomist, SNV Nepal
2	Dr. Anita Ghimire	Migration Expert
3	Dr. Bijaya Bajracharya	Programme Coordinator, The Lutheran World Federation
4	Mr. Bishnu Adhikari	Data Manager, ISER-Nepal, Fulbari, Chitwan
5	Dr. Bishnu Ghimire	Academic Director, SARR Nepal
6	Dr. Bishow Poudel*	Kathmandu University, Nepal
7	Prof. David Seddon*	Professor, College of Social Science and International Studies
8	Dr. Devendra Gauchan,	Senior Scientist, NARC
9	Dr. Dharma Raj Dangol	Chair, ISER-Nepal, Fulbari, Chitwan
10	Dr. Dilli Ram Adhikari	Campus Chief, Kadambari Memorial College, Kathmandu
11	Prof. Dilli Ram Baral	Dean, Faculty of Agriculture, AFU, Rampur, Chitwan
12	Dr. Dirgha Jibi Ghimire	Executive Director, ISER-Nepal, Fulbari, Chitwan
13	Dr. Durga Devkota	Coordinator, Rural Sociology & Development Studies, AFU, Rampur
14	Mr. Durga Prasad Adhikari	SEAN Seed Service Limited, Kathmandu
15	Dr. Fraser Sugden*	Social Science Researcher, IWMI
16	Dr. Ganesh Gurung	Chair, NIDS, Kathmandu
17	Dr. Humnath Bhandari	Agriculture Economist, IRRI, Dhaka, Bangladesh
18	Ms. Indra Chaudhary	Study Manager, ISER-Nepal, Fulbari, Chitwan
19	Prof. Kailash Pyakuryal	Vice Chancellor, AFU, Rampur, Chitwan
20	Mr. Krishna Ghimire	Executive Officer, ISER-Nepal, Fulbari, Chitwan
21	Mr. Krishna Prasad Thapaliya	Lecturer, Rural Sociology, AFU, Rampur, Chitwan
22	Dr. Madhu Subedi	UN World Food Programme
23	Dr. Meeta Pradhan	Director of Himalayan Program, The Mountain Institute
24	Dr. Naba Raj Devkota	Director of Research and Extension, AFU, Rampur, Chitwan
25	Dr. Netra Prasad Timilsina	Managing Director, SARR Nepal
26	Ms. Nima Acharya	Research Officer, ISER-Nepal, Fulbari, Chitwan
27	Mr. Pankaj Raj Dhital	Lecturer, Agri. Extension, AFU, Rampur, Chitwan
28	Dr. Prem Bhandari	Senior Research Scientist, ISER-Nepal, Fulbari, Chitwan
29	Mr. Ram Hari Timilsina	Lecturer, Agri. Extension, AFU, Rampur, Chitwan
30	Mr. Rishi Ram Kattel	Lecturer, Agri. Economics, AFU, Rampur, Chitwan
31	Dr. Sharada Thapaliya	Planning Director, AFU, Rampur, Chitwan
32	Mr. Shiva Chandra Dhakal	Lecturer, Agri. Economics, AFU, Rampur, Chitwan
33	Mr. Somnath Ghimire*	District Agriculture Development Officer, DADO, Chitwan
34	Ms. Sudha Sapkota Nepal	Scientist, NARC
35	Mr. Surya Mani Dhungana	Lecturer, Agri. Economics, AFU, Rampur, Chitwan
36	Dr. Tek Bahadur Gurung	Executive Director, NARC
37	Mr. Udit Prakash Sigdel	Lecturer, Agri. Extension, AFU, Rampur, Chitwan
38	Dr. Usha Jha	Chief Executive Officer, Samjhauta Nepal, Kathmandu
39	Dr. Yam Malla*	IUCN, Kathmandu
40	Ms. Yamuna Ghale	Senior Programme Officer, SDC, Kathmandu
41	Ms. Yashoda Shrestha	Danida HUGOU
42	Dr. Yubak Dhoj G.C.*	Director General, Department of Agriculture

* Absent

ANNEX D. List of Presentations

Integrating Social and Agriculture Science: Building the Foundation for Interdisciplinary Research in Nepal

Dr. Dirgha J. Ghimire, Director, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan and Research Associate Professor, Population Studies Center, University of Michigan, USA

Agricultural Change, Outmigration and Food Security

Dr. Prem Bhandari, Senior Research Scientist, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan and Assistant Research Scientist, Population Studies Center, University of Michigan, USA

Expert Commentary - Agricultural Change, Outmigration and Food Security

Dr. Ganesh Gurung, Chair, Nepal Institute of Development Studies, Kathmandu

Rural Labor Outmigration and Agriculture Productivity

Dr. Humnath Bhandari, Agricultural Economist, International Rice Research Institute, Bangladesh

Expert Commentary - Rural Labor Outmigration and Agriculture Productivity

Dr. Devendra Gauchan, Division Chief (Senior Scientist, Agricultural Economist), Nepal Agricultural Research Council, Lalitpur

Labor Outmigration, Agriculture and Women's Role in Agriculture

Ms. Nima Acharya (Adhikari), Research Officer, Institute for Social and Environmental Research-Nepal, Fulbari, Chitwan

Expert Commentary - Labor Outmigration, Agriculture and Women's Role in Agriculture

Dr. Bijaya Bajracharya, Programme Coordinator, The Lutheran World Federation-Nepal, Kathmandu