

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



Program Overview

9:30-10:00	Program Overview	~ Dr. D.J. Ghimire
10:00-10:10	Guest of Honor	~ Dr. Tek Bahadur Gurung
10:10-10:20	Guest of Honor	~ Dr. Yubak Dhoj GC
10:20-10:30	Keynote Address	~ Prof. Dr. Kailash Pyakuryal

10:30-11:00 Break and Tea/Coffee

11:00-11:10	<i>Labour Outmigration</i>	~ Dr. Prem Bhandari
11:10-11:30	Expert Comments	~ Dr. Ganesh Gurung

11:30-11:40	<i>Agriculture Productivity</i>	~ Dr. Humnath Bhandari
11:40-12:00	Expert Comments	~ Dr. Devendra Gaucha

12:00-12:10	<i>Women in Agriculture</i>	~ Ms. Nima Acharya
12:10-12:30	Expert Comments	~ Dr. Bijaya Bajracharaya

12:30-12:50	Feedback & Discussion	~Dr. D.J. Ghimire
12:50-13:00	Closing Remarks	~Prof. Dr. D.R. Dangol

Goal

The goal of this workshop is to foster intellectual interaction among potential consumers of evidence generated through rigorous scientific investigation in building foundation for interdisciplinary research, education and public policy.

Labour Out-migration, Agricultural Productivity and Food Security

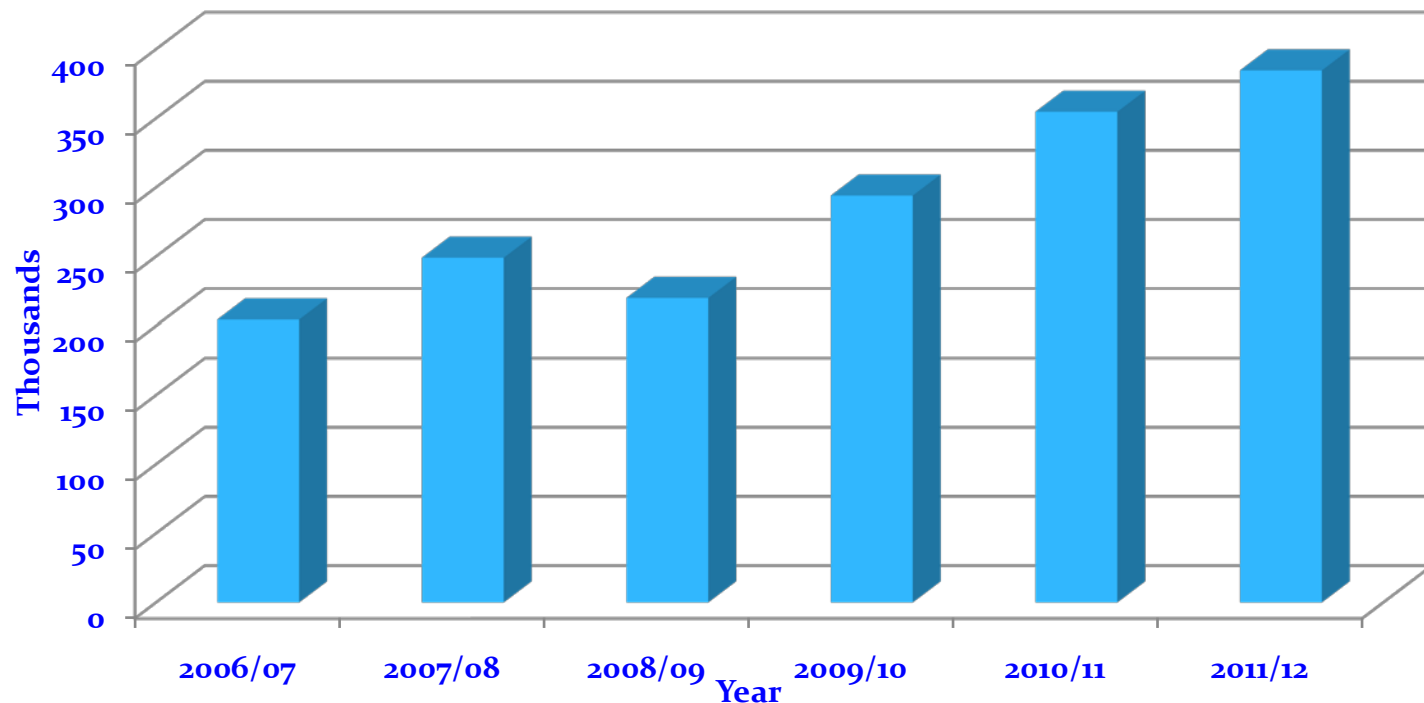


Why to study Labour Out-migration?

- More people are geographically mobile today than at any point in human history:
 - In 2013, 232 million international migrants.
 - Domestic migrants also constitute a significant proportion (in 2010, 11 percent of the total population moved internally).
 - South Asians - among the largest group (36 million in 2013).

Why to study Labour Out-migration?

Number of Nepali International Labour Migrants
by Year



Why to study Labour Out-migration?

..... youth leaving Nepal each day



Why to study Labour Out-migration?

- Departure of youths has several important consequences for
 - Individuals
 - Families
 - Communities

As a result?

Migration has received much attention both in academia and policy arena- perhaps, is one of the most studied subjects - both *substantively* and *methodological* perspective across many disciplines- sociology, demography, economics, environment, and political science.

Previous studies focused on the determinants of migration and impact of remittances.

Previous Studies

Advancing our understanding of:

- 1) predictors of migratory behaviors
- 2) economic consequences - cash remittances
- 3) loss of Labour
- 4) health consequences (such as sexually transmitted diseases and HIV/Aids)
- 5) social consequences for left behind women (empower and burden) and children
- 6) lately on what is called “*social remittance*” (change in migrant’s values, belief, and skills)

Previous Studies

Previous studies have developed several theoretical and conceptual frameworks (for example, *push-pull*, *New Economics of Labour Migration* etc.) to identify the determinants of migration as well as to explain the consequences for both sending and receiving countries, communities, households and individuals.

Previous Studies

Despite a vast majority of labour migrants are from rural agricultural settings, research on consequences of out-migration, particularly on agriculture, is skimpy.

To fill this important gap in the literature, we investigate:

This Study Focuses on

one specific, but the most crucial consequence of out-migration for agricultural society

This project investigates the consequences of Labour out-migration on agricultural productivity in Chitwan, Nepal—an agricultural setting.

Specific Aims

- Does Labour out-migration influence (i) agricultural productivity, (ii) women's participation in farming, and (iii) exit from farming?
- Do remittances influence (i) farm technology use, (ii) women's participation in farming, and (iii) exit from farming?
- Do farm technology use and exit from farming influence subsequent out-migration?

Common Methodological Challenges

Migration perhaps is one of the most difficult demographic behaviors to study.

Selectivity of Migrants

First, migrants typically do not represent a random sample of the overall population – disproportionately young, better educated, less risk-averse, more achievement oriented and to have better personal contacts.

Selectivity and attrition problem cause substantial validity problems for research.

Common Methodological Challenges

Second, migration is not a single event, but a process that occurs over time and can involve migration and permanent settlement, return to the origin community, multiple migrations and return cycles, or a series of moves to different places.

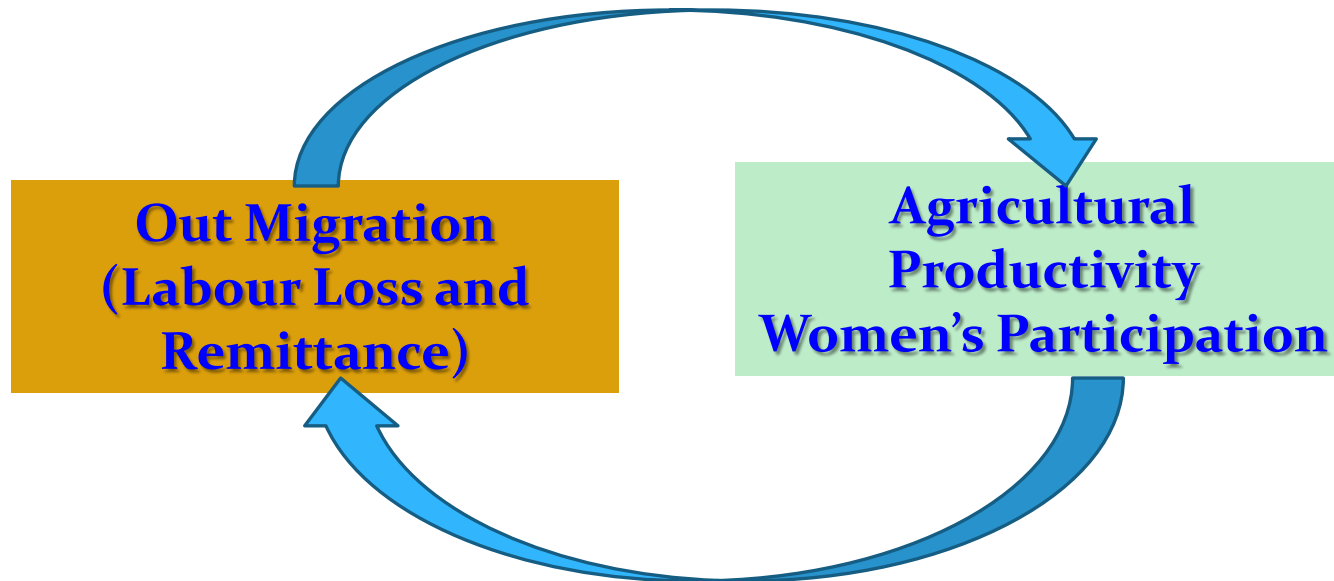
During this dynamic process of migration, individual experiences, behaviors, and intentions can change over time.

Common Methodological Challenges

Causality

Third, migration decision is both influenced by and influences to several other factors, posing potential reciprocal causality.

For example, in our case



Approach

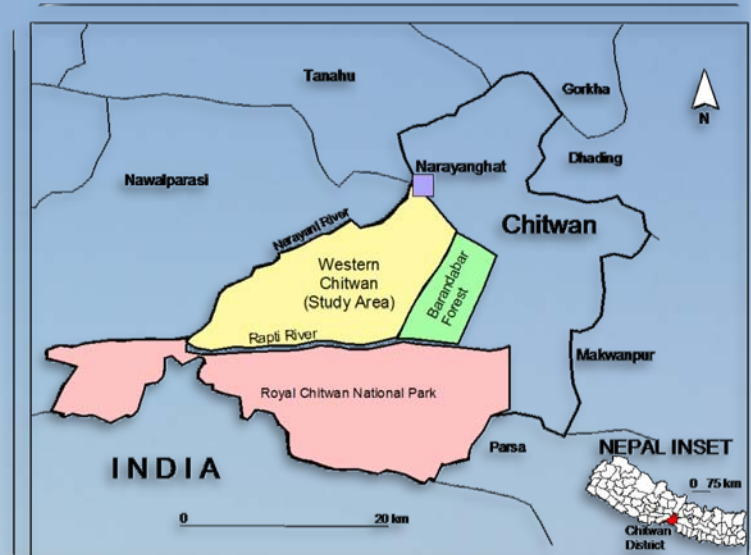
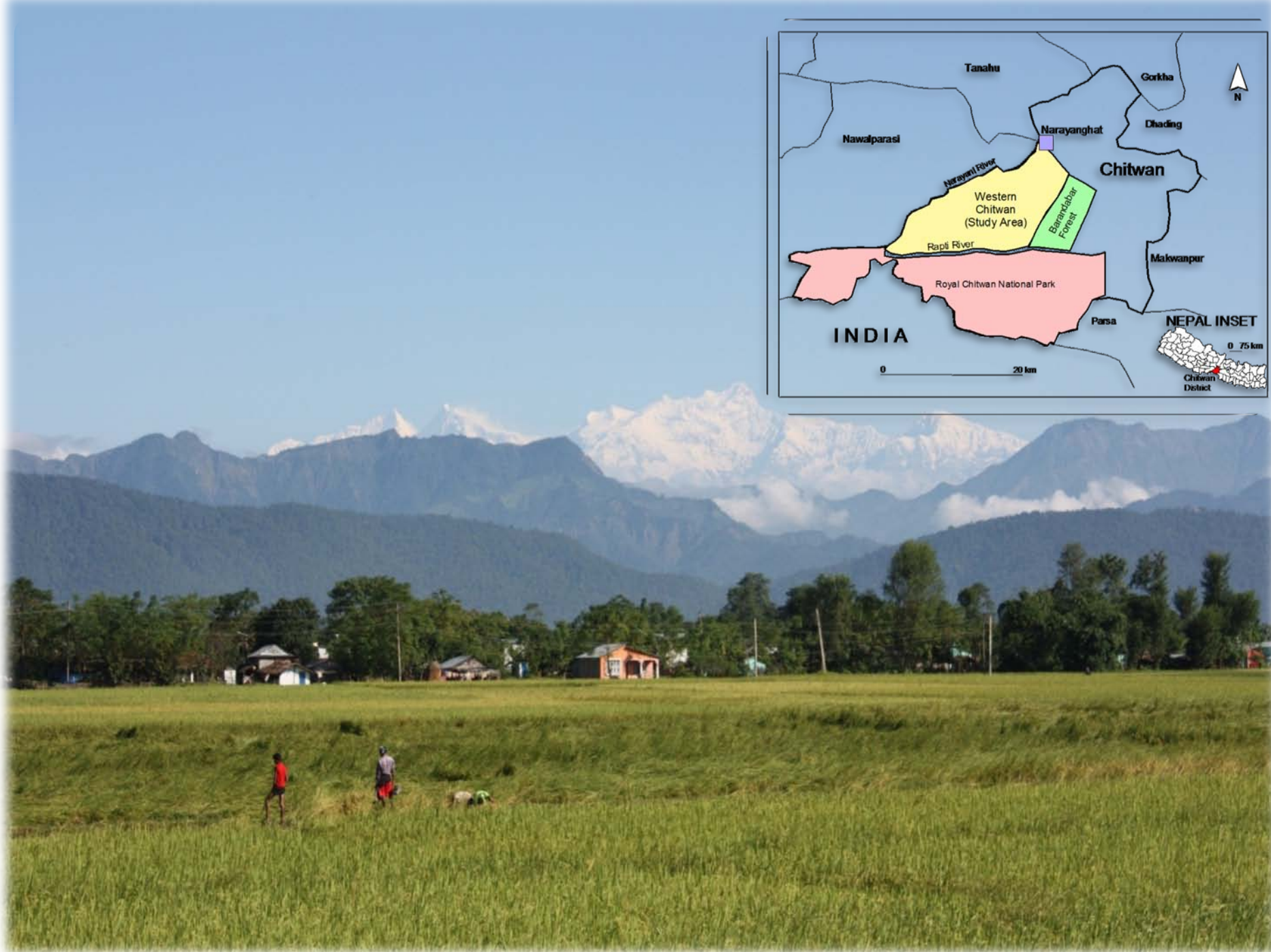
Experiment: Randomized Control Trial approach- not feasible.

Leveraging a 18-year panel data: CVFS

Instrumental variable.

Prospective panel design.

Household level fixed effect.

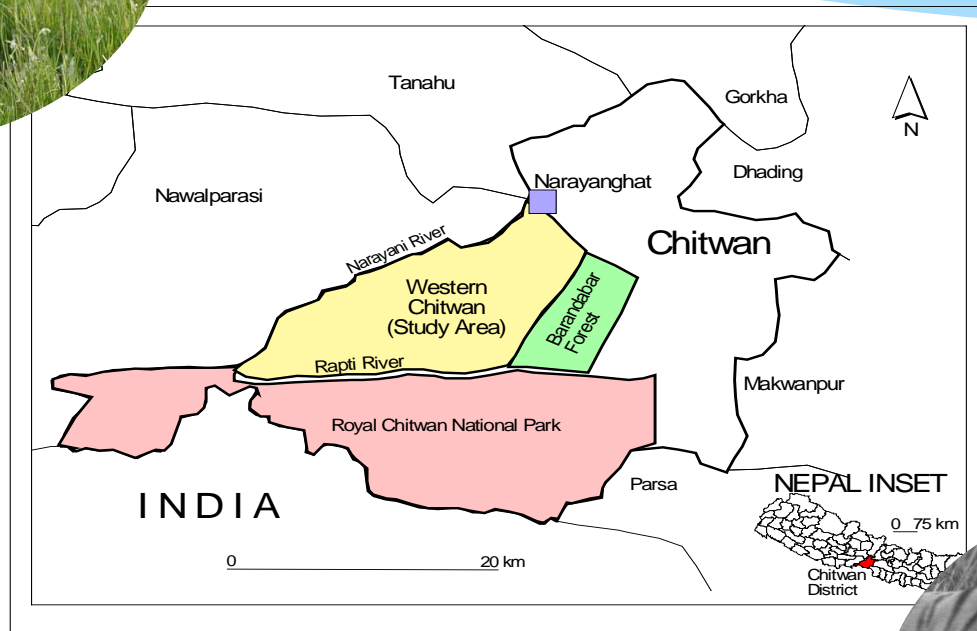


Study Setting

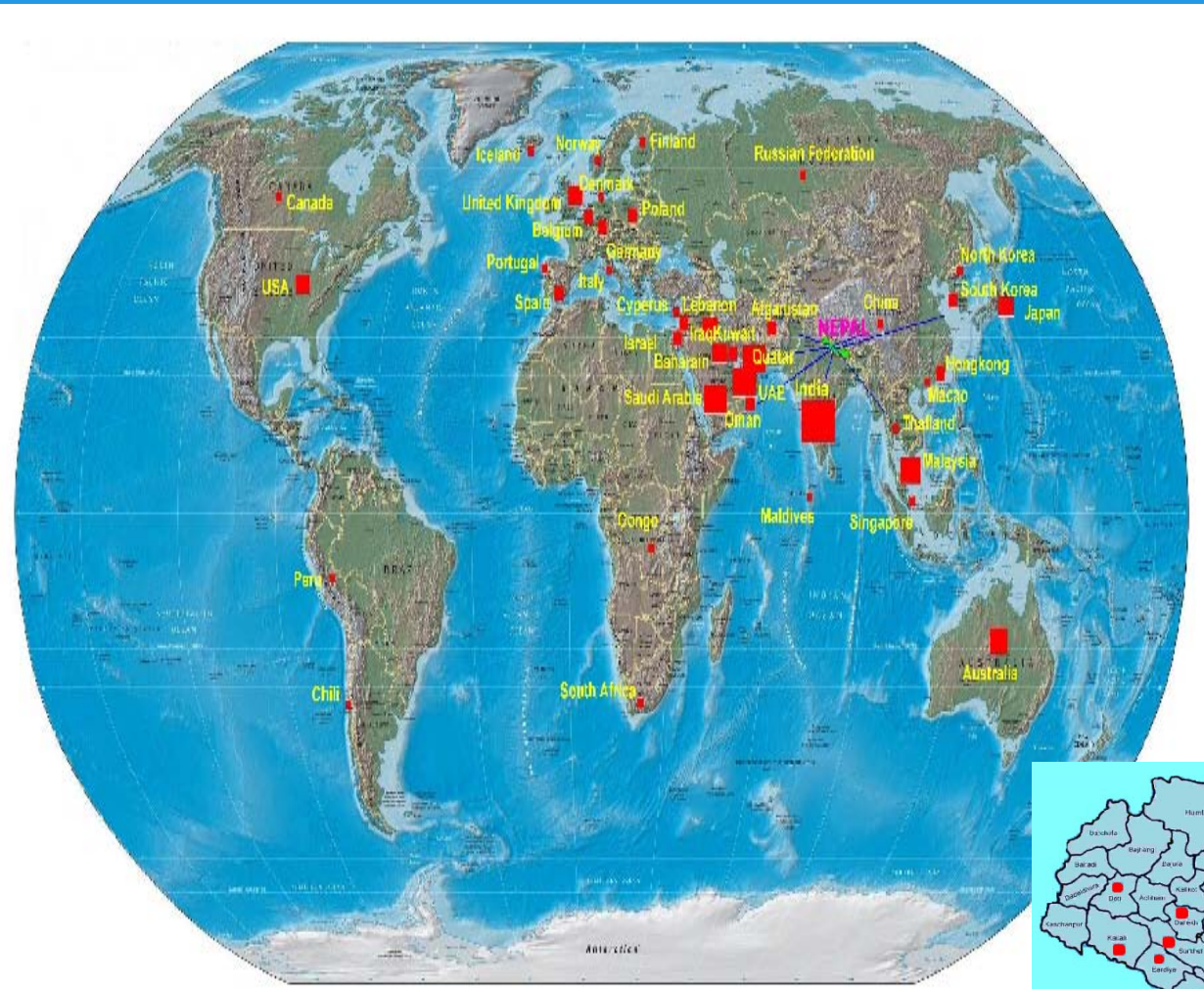
Chitwan Valley Family Study Nepal

- A 18-year multi-level panel study [Chitwan Valley Family Study (CVFS)]
- Of communities, households, and individuals

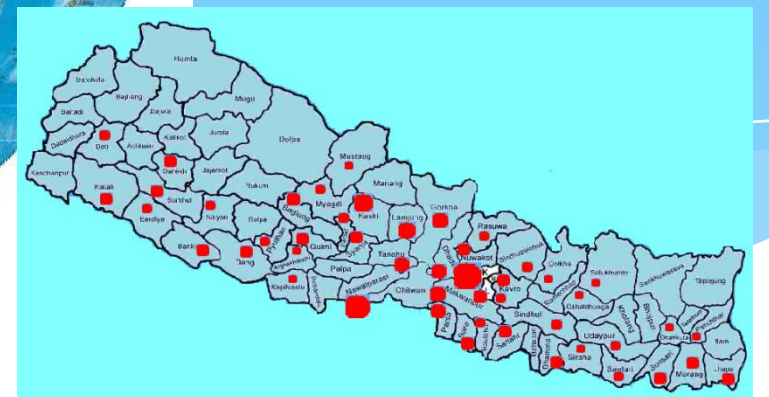
Study Area : The Chitwan Valley



Tracking Migrants around the Globe



**With 91% Response Rate
(Ghimire et al. 2014)**

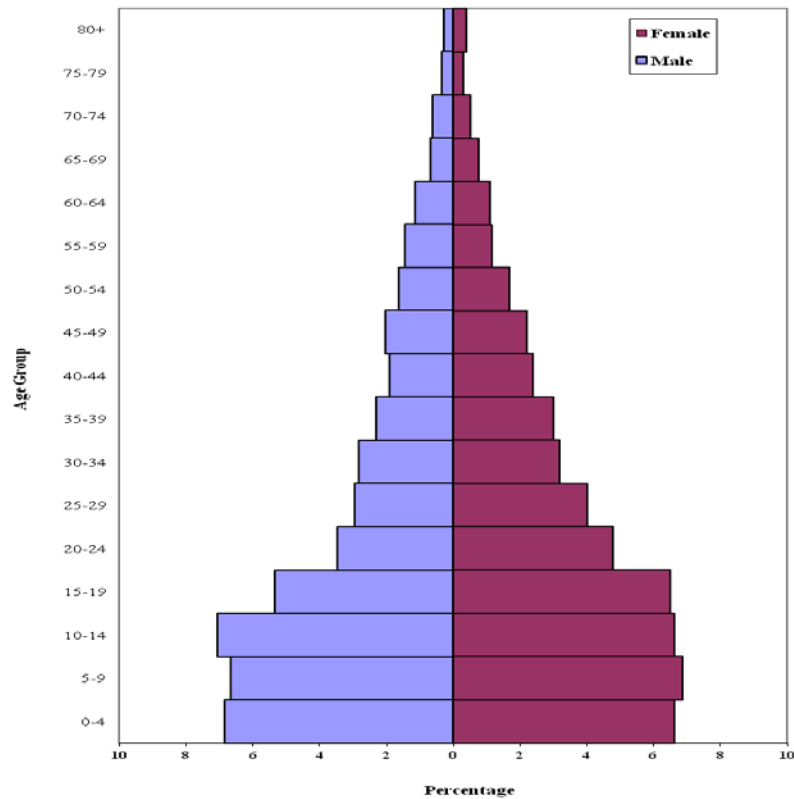


● Destination

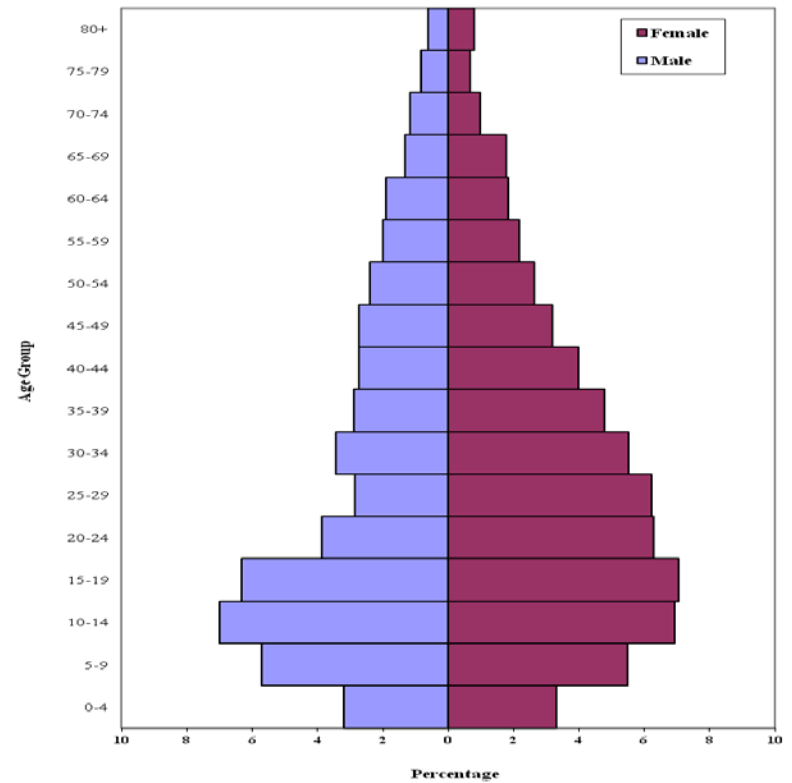
Study Setting

- Currently, the area is experiencing high out-migration

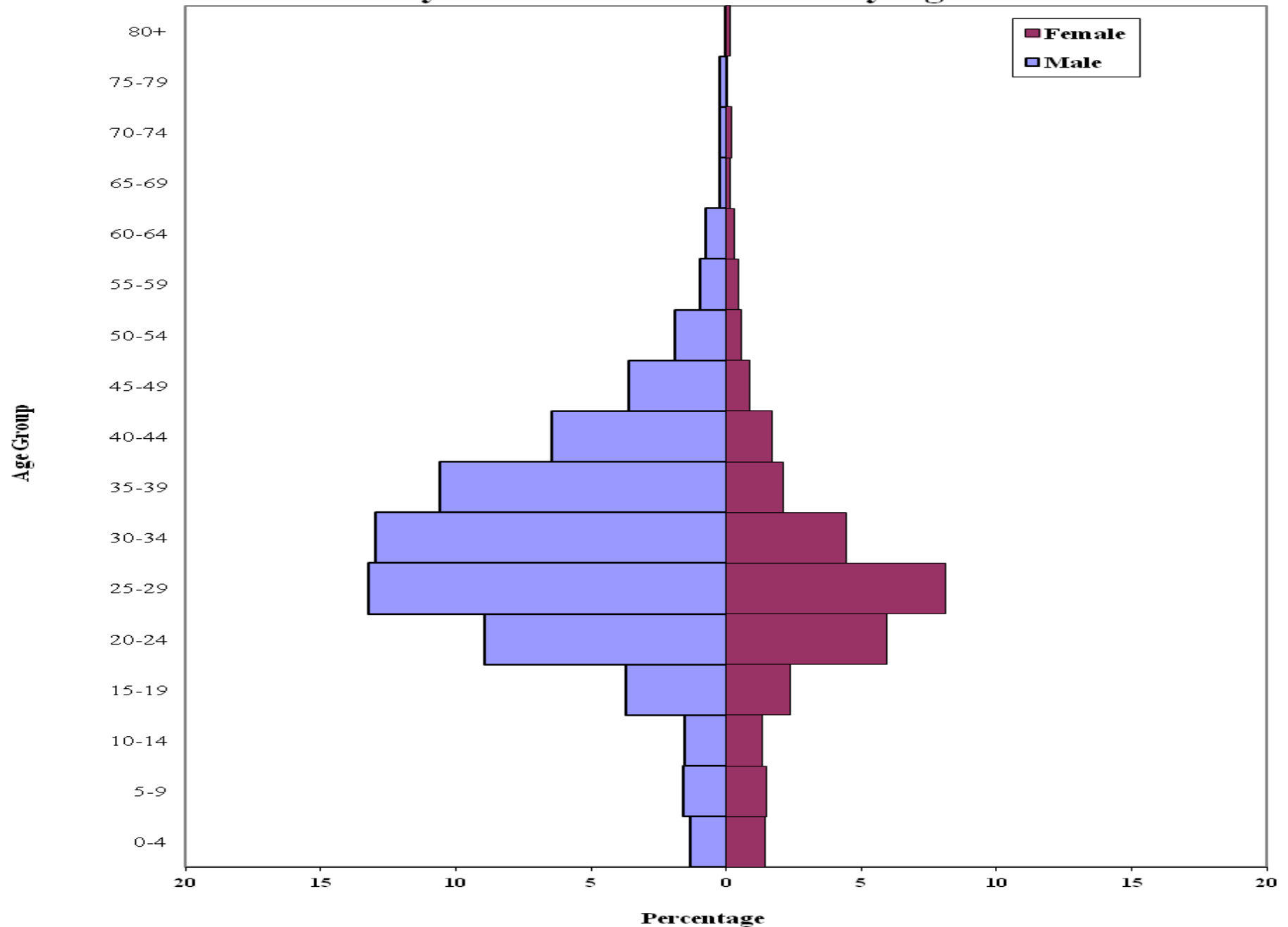
Population Pyramid of Western Chitwan 1998



Population Pyramid of Western Chitwan 2013



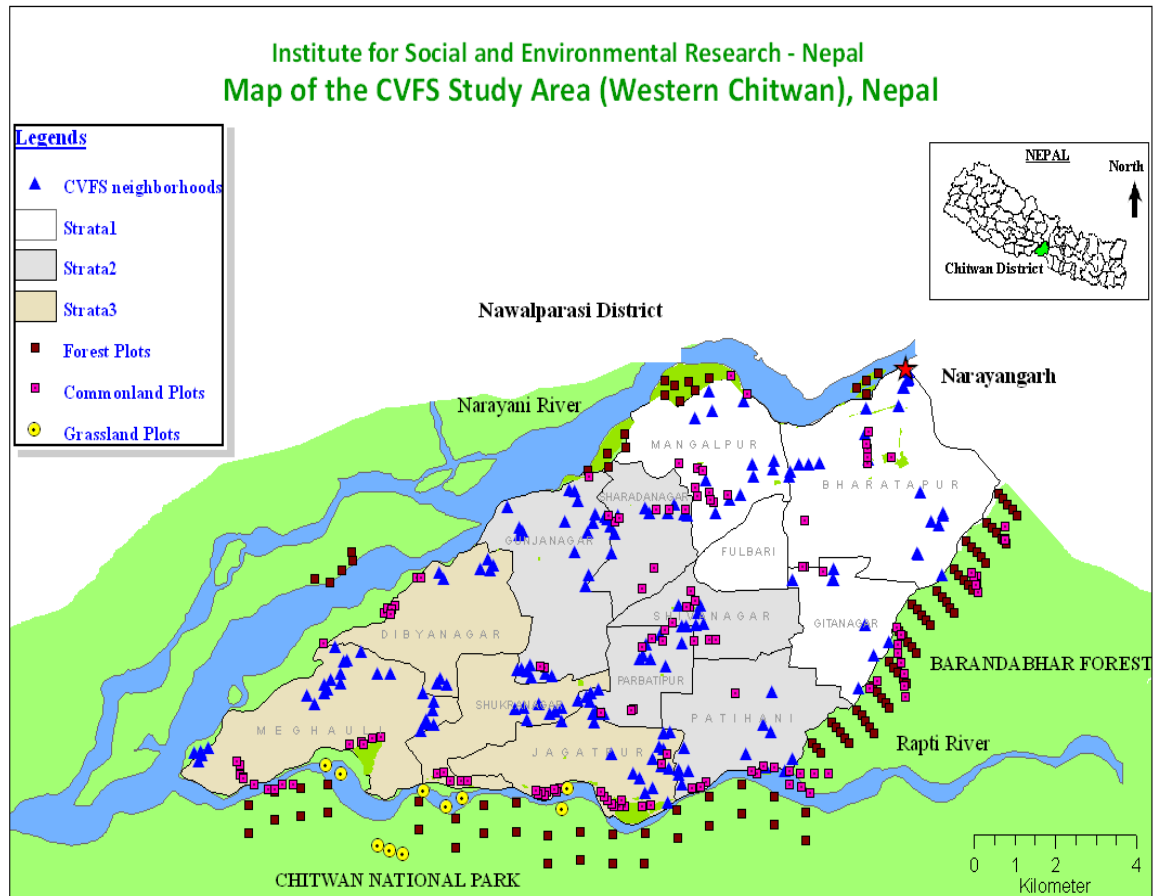
Distribution of Population of Western Chitwan Who were Away from Chitwan in 2013 by Age and Gender



Sample

Sample

- 151 Neighborhoods
- Over 2,700 Households
- Over 15,000 Individuals
- 265 Flora Plots



Research Design



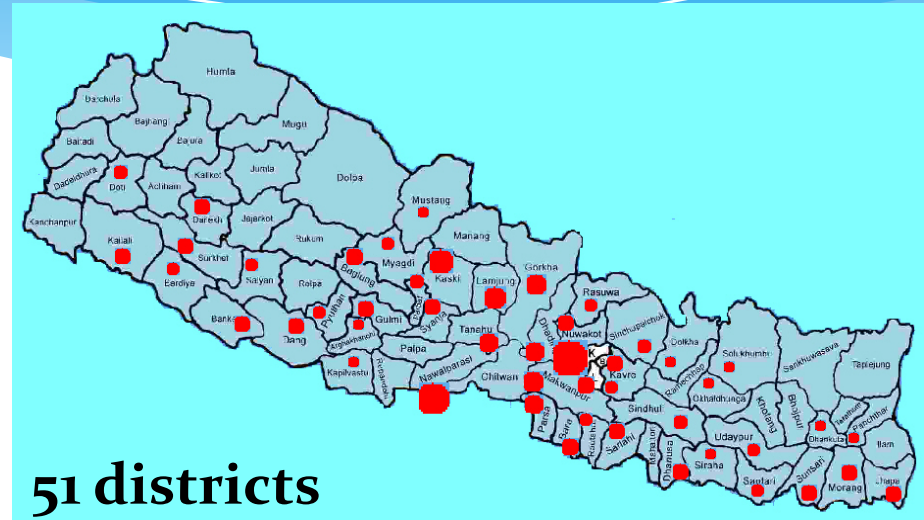
Multilevel

Longitudinal Panel

Mixed Method Data Collection

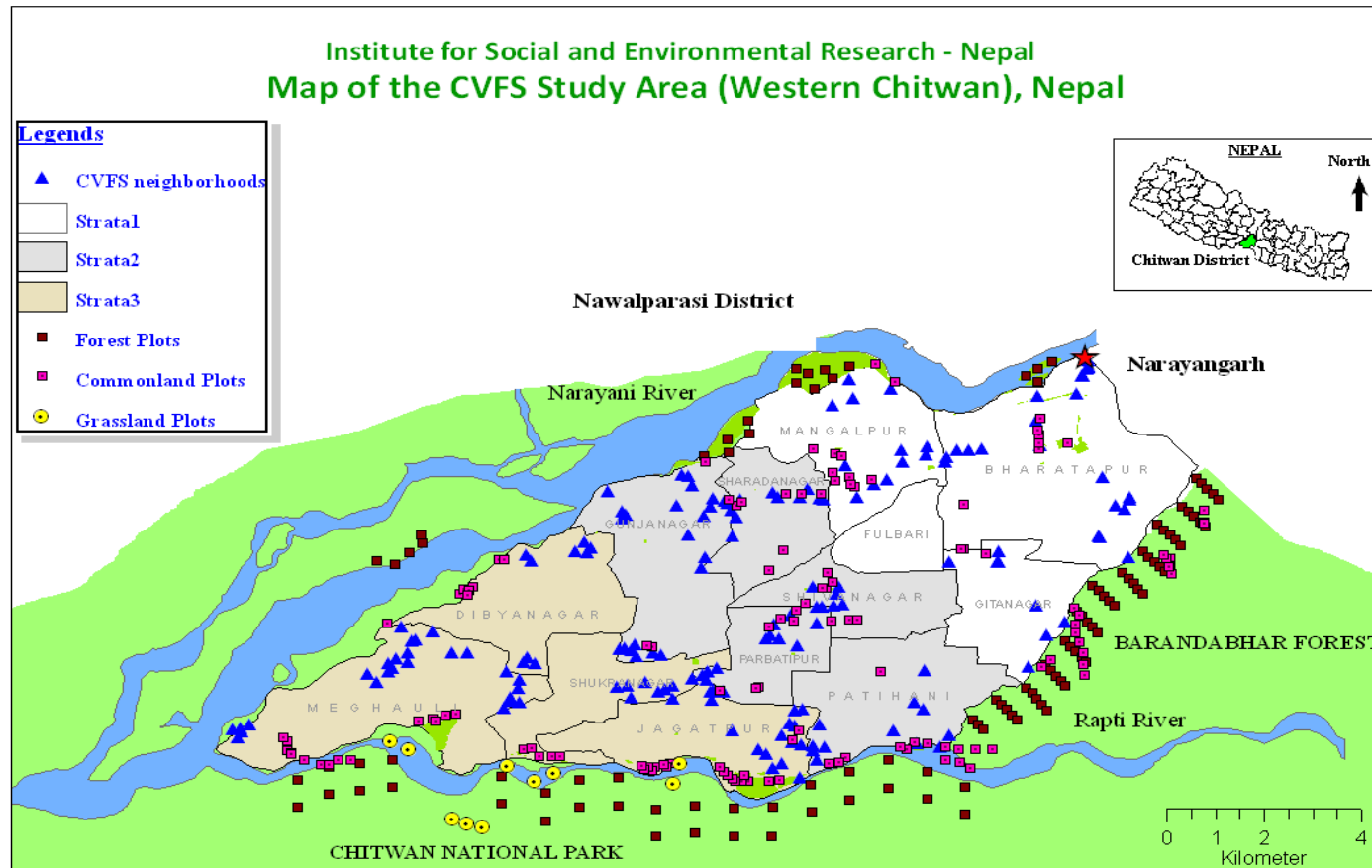
Multi Mode Data Collection

Study Setting



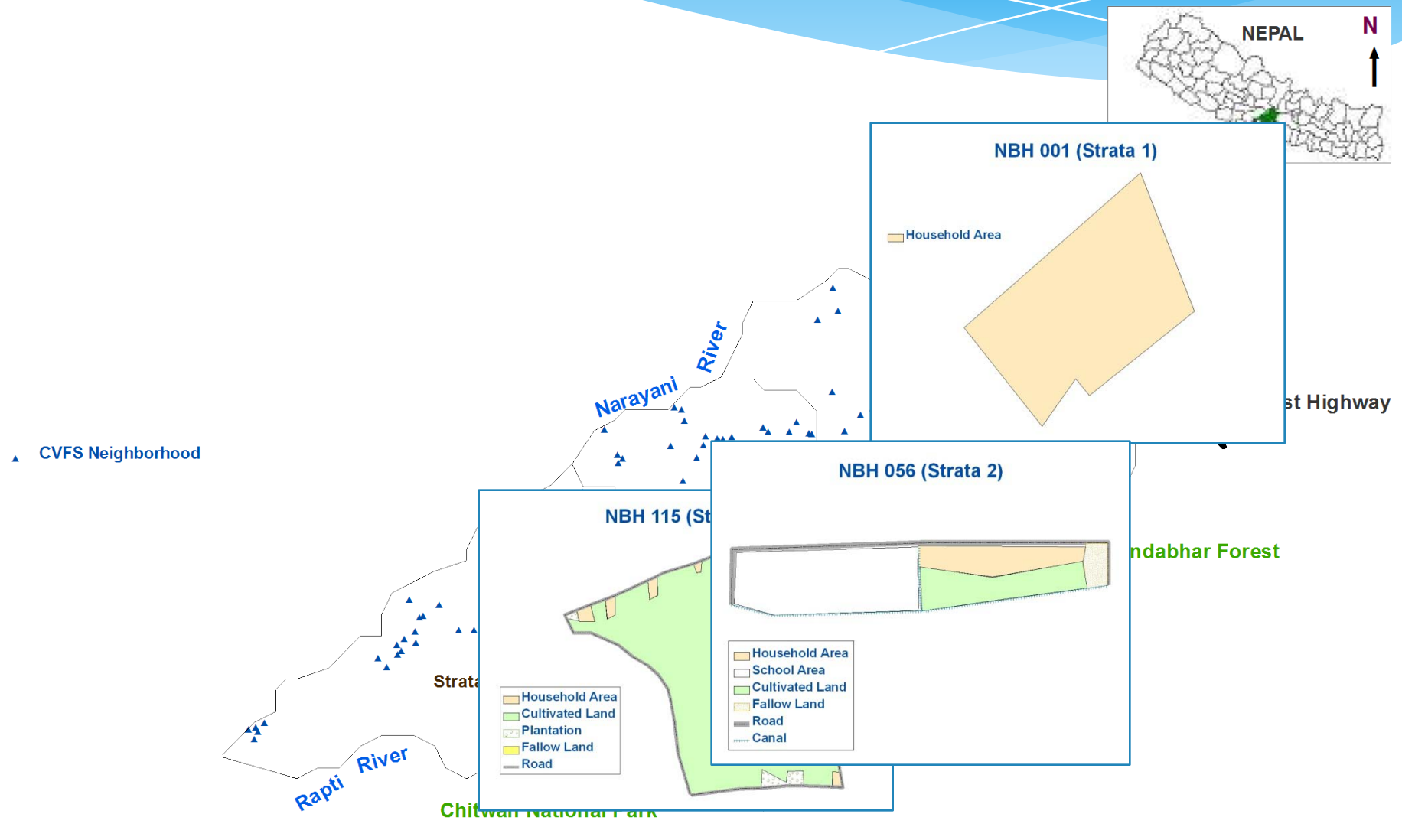
41 countries **Migrants from Western Chitwan** **● Destination**

Research Design



Case Controlled Comparison

Land Use Mapping



CVFS

a case controlled, multilevel,
panel study of community,
household and individuals

Retrospective

MEASUREMENT APPROACH

Prospective

COMMUNITY
LEVEL

Neighborhood History
1950-1995

Institutional History
School, Health 1954-1995

Neighborhood History
Calendar 1996, 2006, 2014

Institutional History
Calendar 1996, 2006, 2014

Neighborhood Land
Use Mapping 1996, 2000, 2006

Botanical Survey 1996, 2000, 2006;
Community Forest User Group Survey 2008

HOUSEHOLD
LEVEL

Household Survey

Household Relationship

Household Economy Survey
1996, 2001, 2006, 2014

Household Relationship
1996, 2002, 2008, 2014

INDIVIDUAL
LEVEL

Life History Calendar
Birth-1996

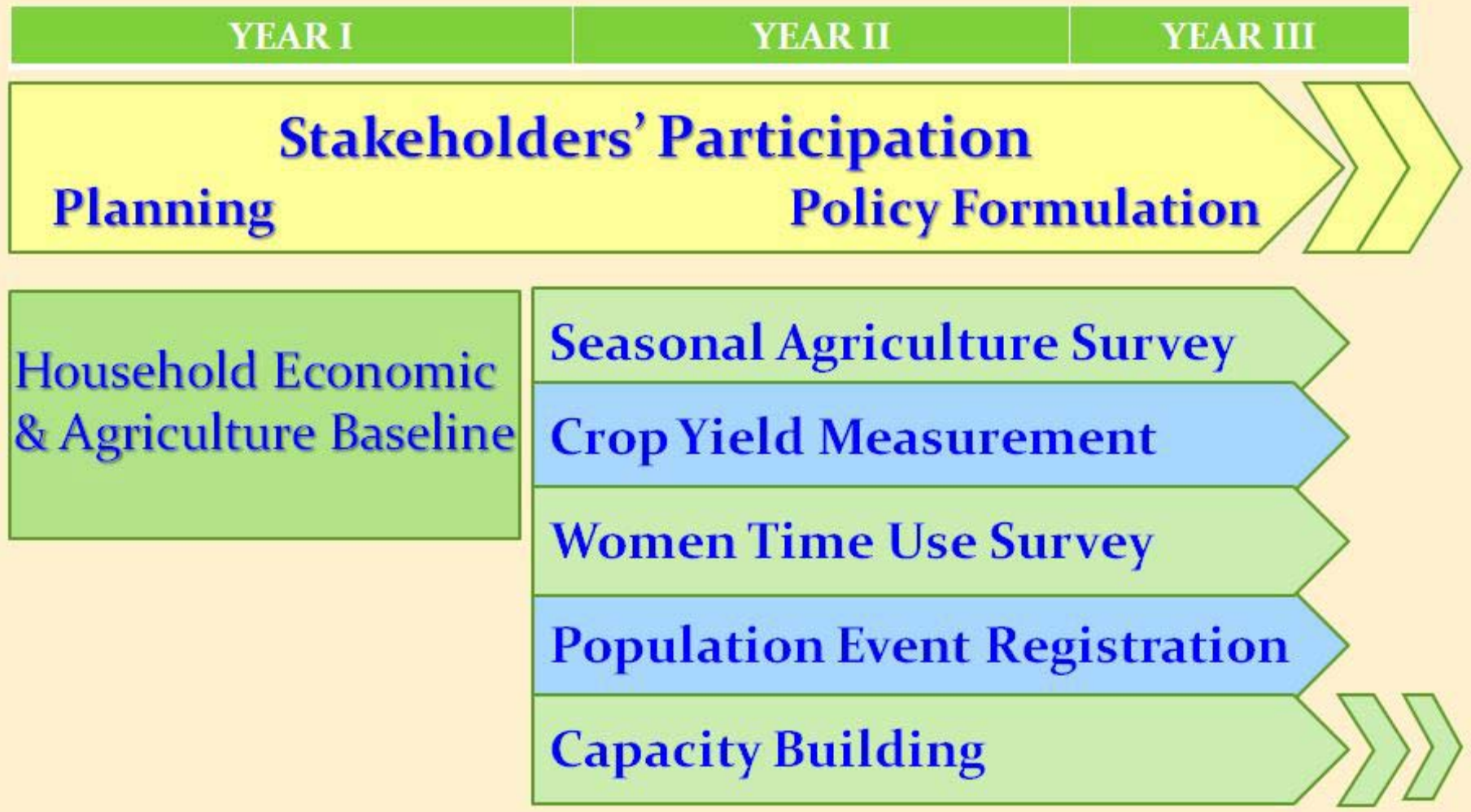
Migration Survey

Individual Interview with
Life History Calendar 1996, 2008

Migration Survey
(International and Domestic) 2009, 2012

Demographic Events Registration 1997.....

Our Plan



Key Collaborating Institutions

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

Agriculture and Forestry University (AFU), Nepal

Nepal Agriculture Research Council (NARC), Nepal

University of Michigan (UOM), USA

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“Improving Human Lives and Environmental Conditions”