GENDER ANALYSIS OF AGRICULTURAL LABOR IN THE MID-HILLS OF NEPAL AND THE IMPLICATIONS FOR THE ADOPTION OF CONSERVATION AGRICULTURE

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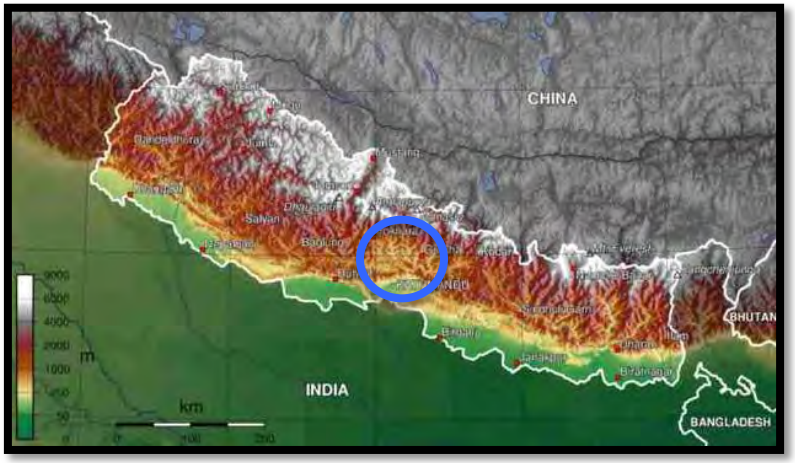
Introduction

- Women represent half the population in subsistence farming communities, however, there is a lack of research measuring the labor effects of agricultural interventions on gender
- Household labor capacity can be a limiting factor for changes to agriculture in subsistence communities
- Inability to increase agricultural labor hours can contribute to failure to adopt practices despite potential to increase food security, improve soil, and maintain livelihoods
- Rural women take on a disproportionate workload for both agricultural and household duties
- Labor division is highly localized and contextual, and may depend on culture, education, income, or environmental conditions

Objectives

- To identify the gendered distribution of agricultural labor in three *Chepang* tribal villages of central Nepal
- To estimate the changes in gender labor required by conservation agriculture interventions
- To assess the implications of labor shifts with respect to the potential for adoption of conservation agriculture practices.

Study Area: Central Mid-hills, Nepal



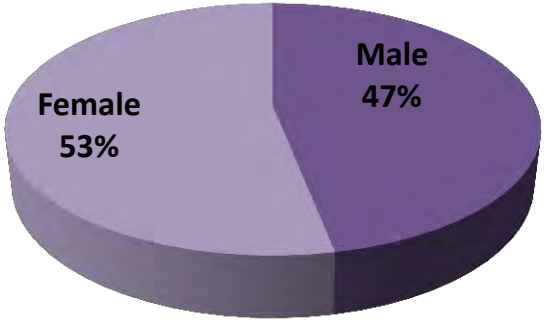
- Agriculture in the central mid-hills supports 44% of Nepal's population
  - A region of high importance for improving food security
- Three villages in the central mid-hills were studied
  - Village size: 25-42 households
- Communities characterized by:
  - Food insecurity, subsistence farming, limited income generation
  - Marginal agricultural lands, small landholdings (<2 ha land/household)
  - Continuous cultivation, terracing, and mono-cropping in a maize-based agricultural system

Methodology

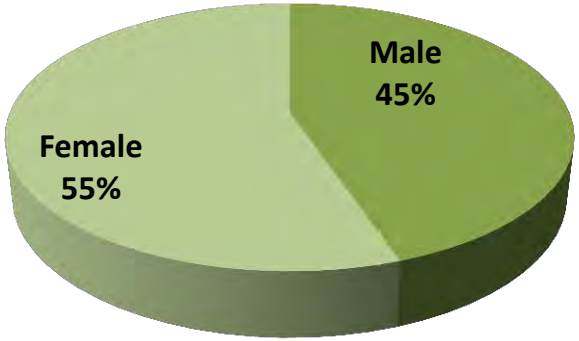
- June 2012, households were surveyed in three *Chepang* tribal communities in the central mid-hills of Nepal to conduct an activities analysis by gender
- Male and female heads of household surveyed separately to assess gender participation in agricultural activities
- Survey analysis measured labor hours required for the farmer's cultivation approach, representing a complete cropping season: **(T1) maize followed by legumes**
- CA plots on 8 farmer fields in each village
- Labor activities recorded by gender for two treatments:
  - **(T2) Maize followed by intercropped millet/cowpea**
  - **(T3) Minimum tillage maize followed by intercropped millet/cowpea**

Results: Labor distribution (%) with Conventional and Conservation Practices

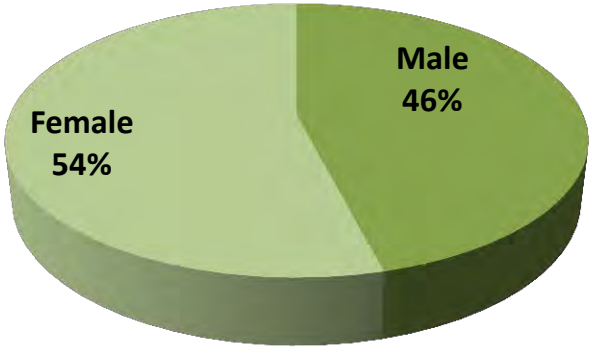
T1: Conventional Maize + Legume



T2: Intercrop Maize/Legume+ Millet

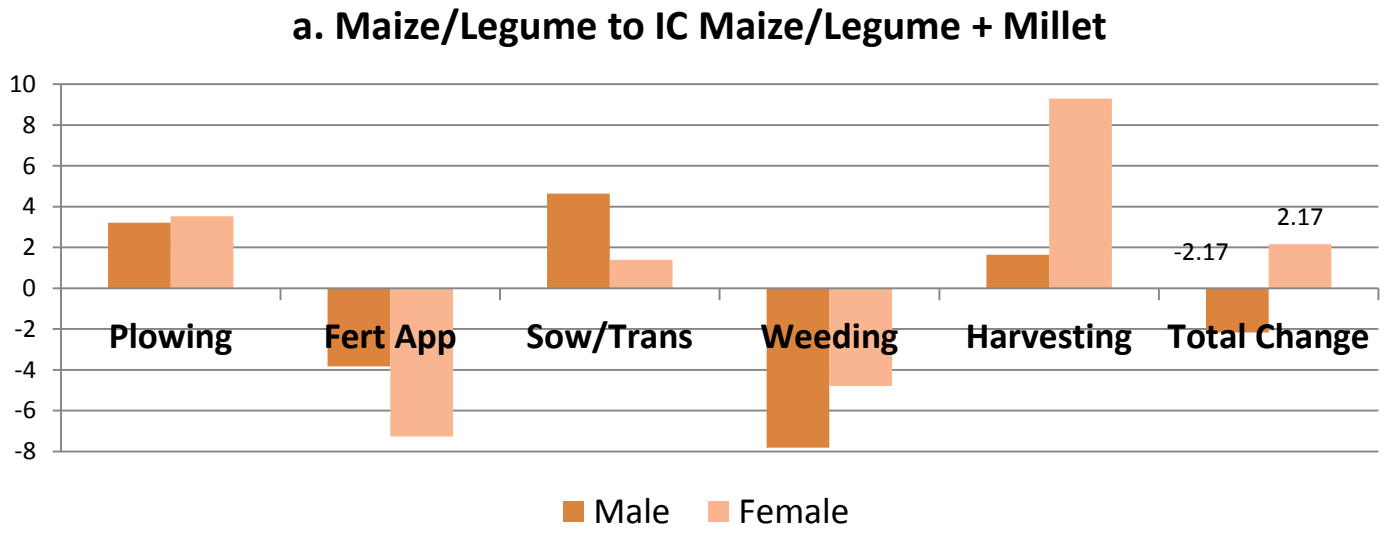


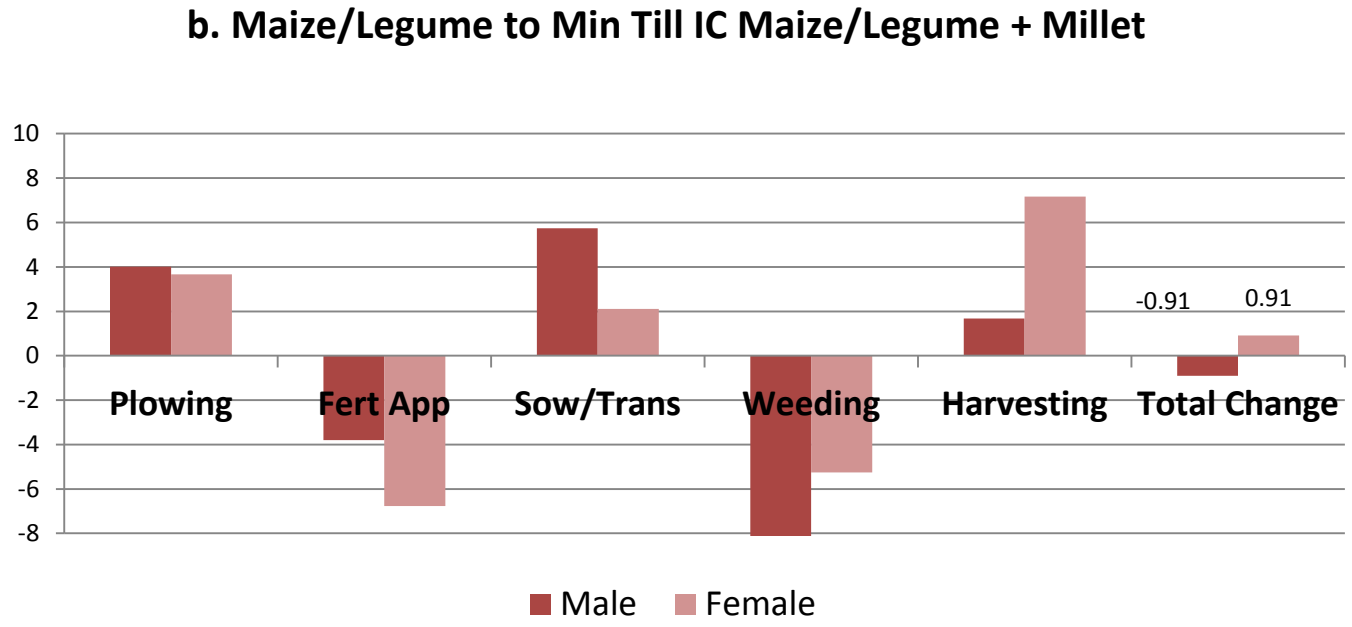
T3: Min Till Intercrop Maize/Legume + Millet



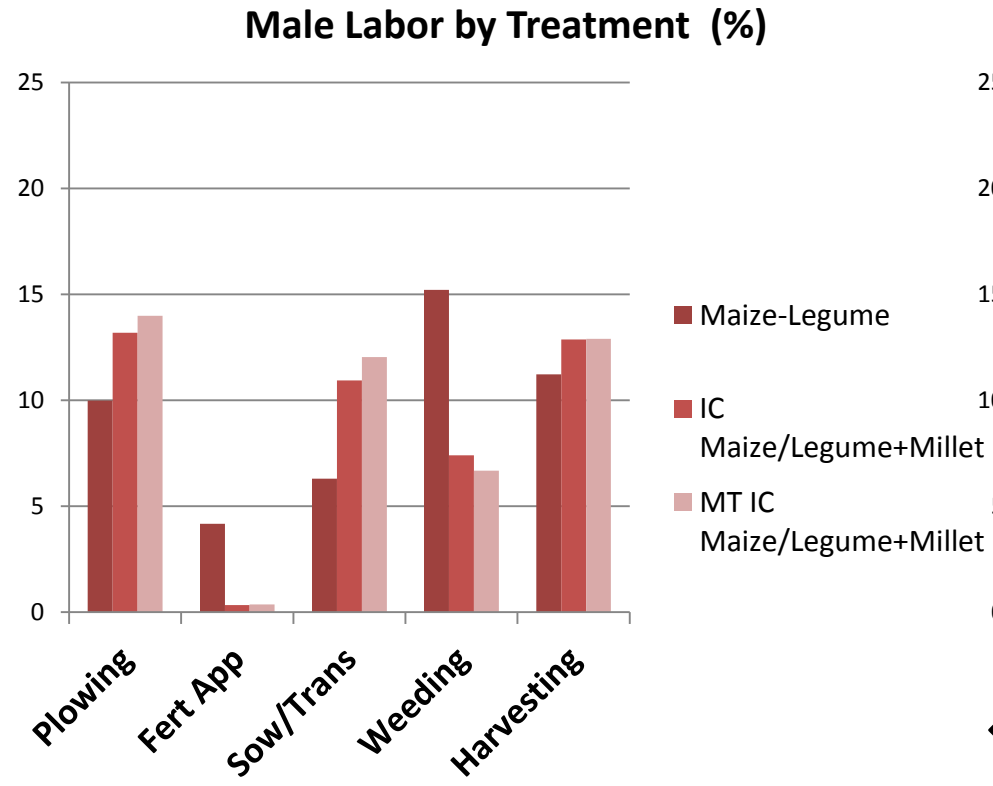
Women perform 53-55% of total labor hours for both farmer's practice and conservation agriculture

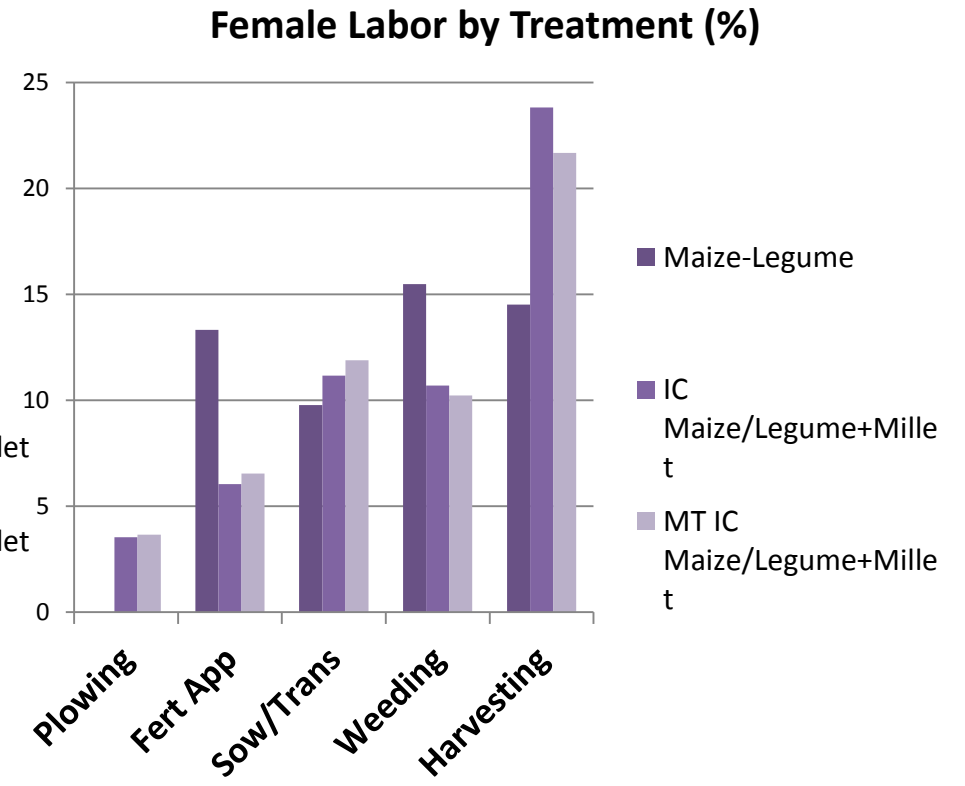
Results: Changes in (%) Gender Labor by Activity





Results: Comparison of Systems





- Increases in land preparation, sowing, harvesting with CA
- Overall decreases observed in fertilizer application, weeding
- Drivers for the shift in labor are increased harvesting for women, with some increases in land preparation

Conclusions & Implications

- The introduced CA practices have been shown to increase agricultural labor for women
- Increased demands for harvesting are the driving force for this shift in labor
  - Indicates potential for greater food security and income generation
  - Greater demands for processing and marketing will be required
- However, limited household labor availability and seasonal demands may be prohibitive for the adoption of these CA practices
- Reduced demands for fertilizer application and weeding may allow for diversification of agricultural or off-farm activities

Future Research

- Conduct further research to explore the driving forces behind the gender-based labor shifts and decision-making
- Determine the opportunity costs of increased agricultural labor as compared with other wage earning, community, or education opportunities
- Assess the agricultural labor demands within the scope of total household and community time commitments labor and seasonal time demands

THANK YOU!

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