

# Gender Perceptions of Climate Change

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# What is Climate and Climate change?

- **Climate**

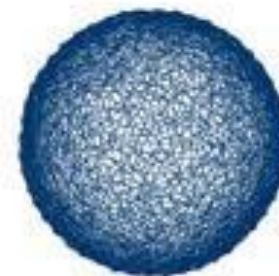
- Climate, sometimes understood as the "average weather," is defined as the measurement of the mean and variability of relevant quantities of certain variables (such as temperature, precipitation or wind) over a period of time, ranging from months to thousands or millions of years ([www.wmo.int](http://www.wmo.int))

- **Climate Change**

- Change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer ([www.ipcc.ch](http://www.ipcc.ch))

# Extreme weather

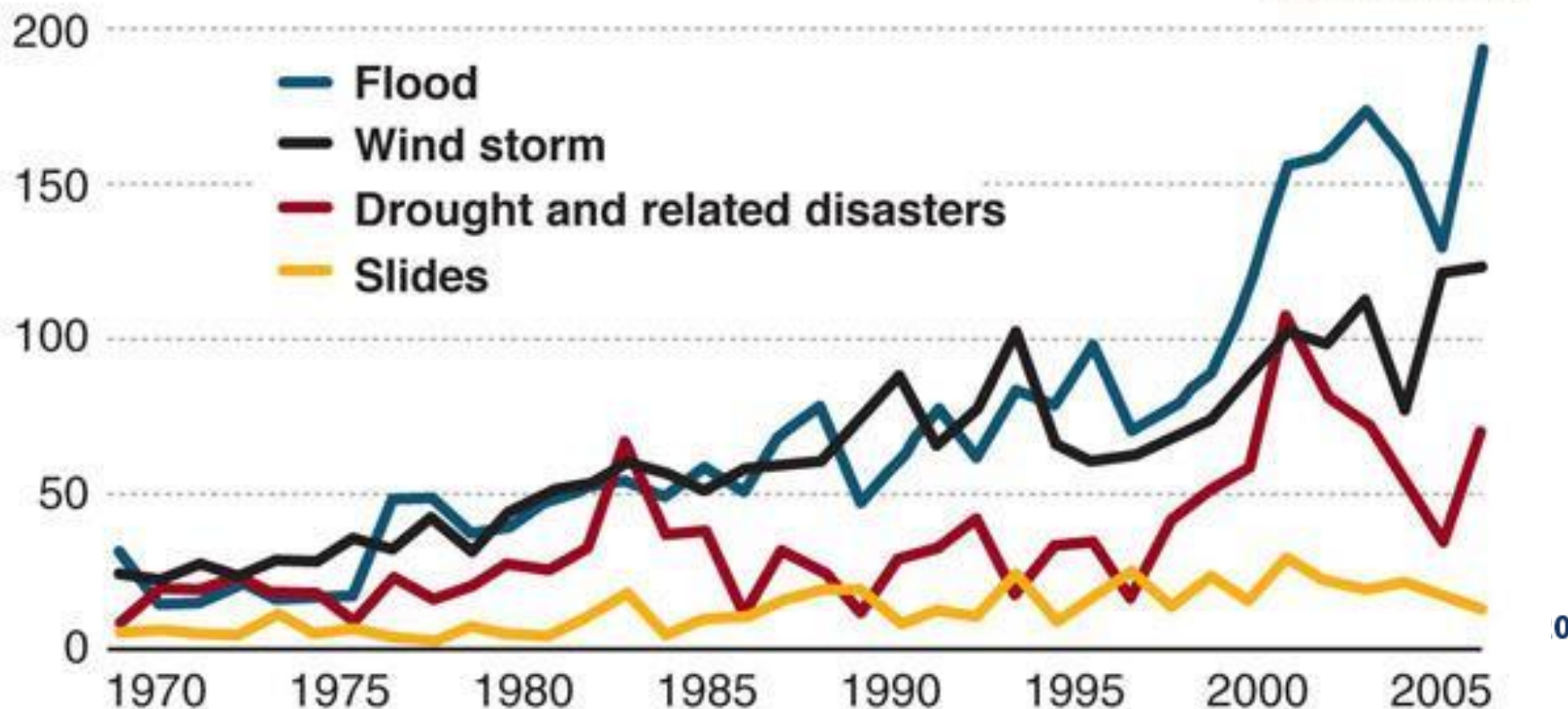
*Number of floods has risen sharply due to climate changes.*



COP15  
COPENHAGEN  
UN CLIMATE CHANGE CONFERENCE 2009

## Trend in extreme weather events 1970-2005

Number of disasters in the world



Source: United Nations International Strategy for Disaster Reduction 2009

Graphic: Jutta Scheibe, Eeli Polli SAWA Workshop - Gender Perceptions on Climate Change

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# Justification

- Scientists talk more and more about the climate and show the science behind it
- The world's politics is now centered on the climate change issues
- World leaders talk about adaptation and mitigation
- But the people who have to adapt to the changing climate are the affecting communities and farmers around the world
- Therefore, it is very important to know how they think about the climate change and what is their perception?

# What is human perception of climate change?

- How can a person discern long-term changes in climatic parameters – **Perception**
- Human interactions with climate occur at all levels
- Perception affects on adaptation and mitigation activities



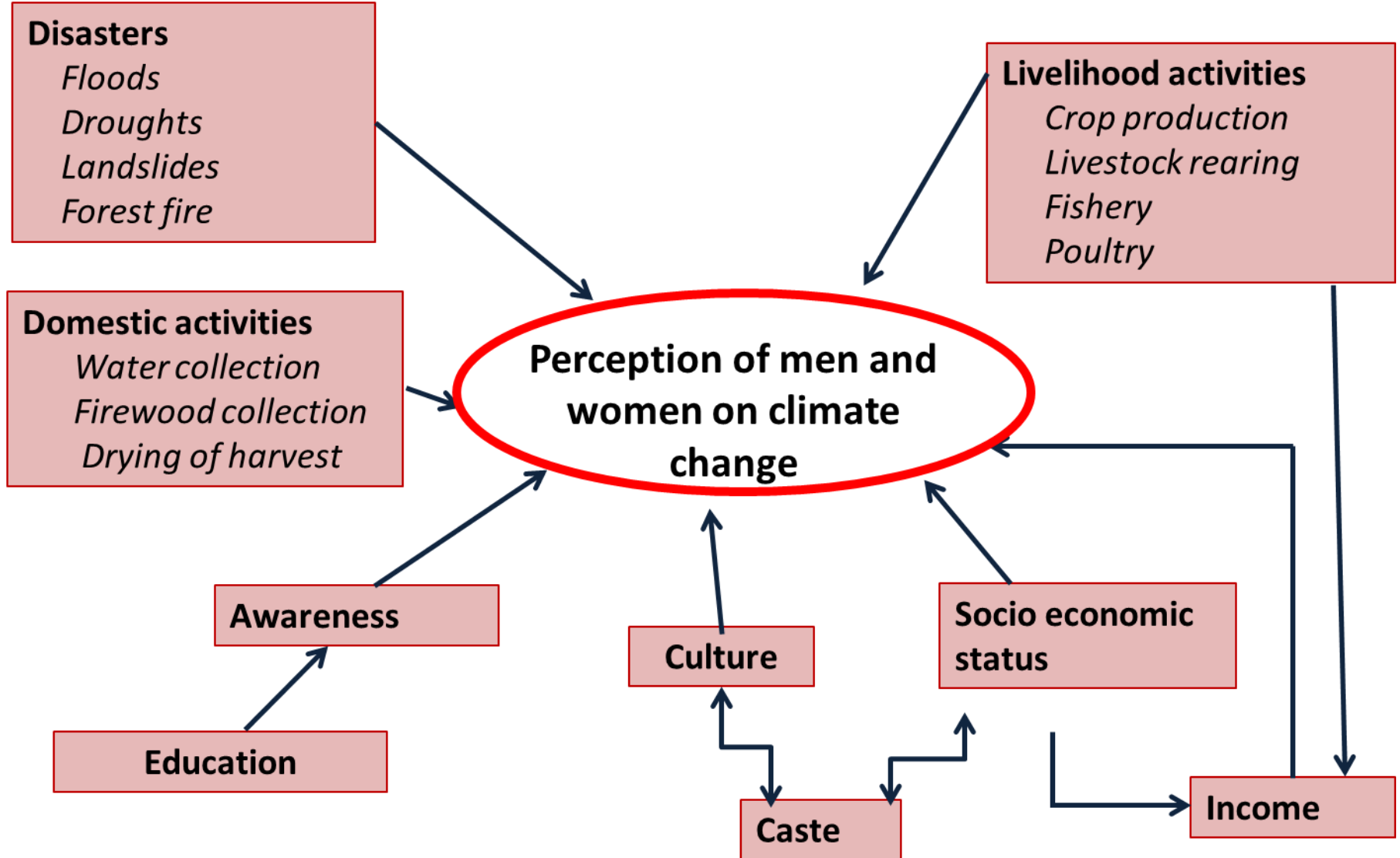
# Objectives

To assess the perception of men and women on climate change in Bhotechaur village (ward 1) in Melamchi Municipality of Sindhupalchowk district in Nepal



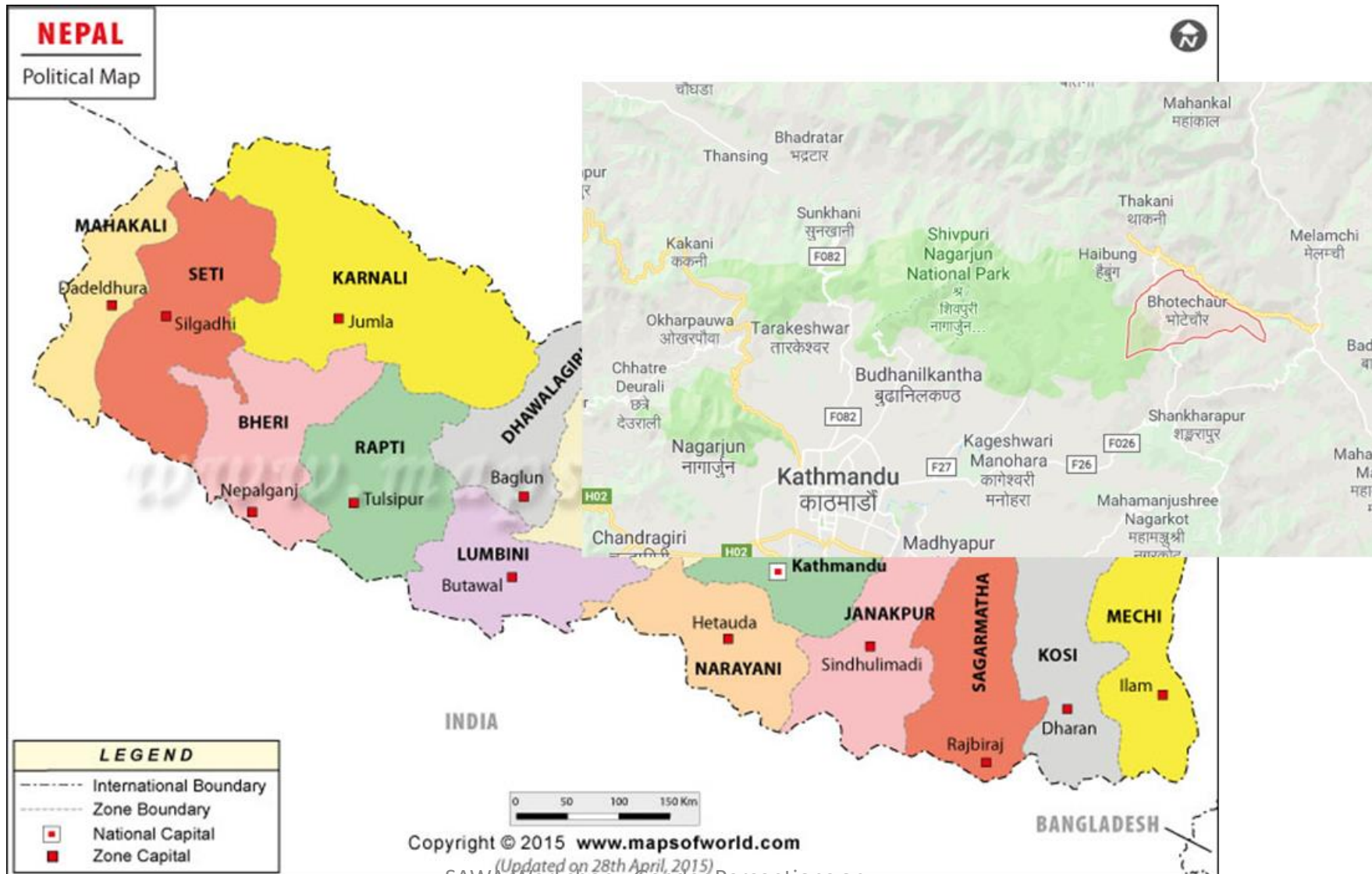
**METHODOLOGY**

# Conceptual Framework

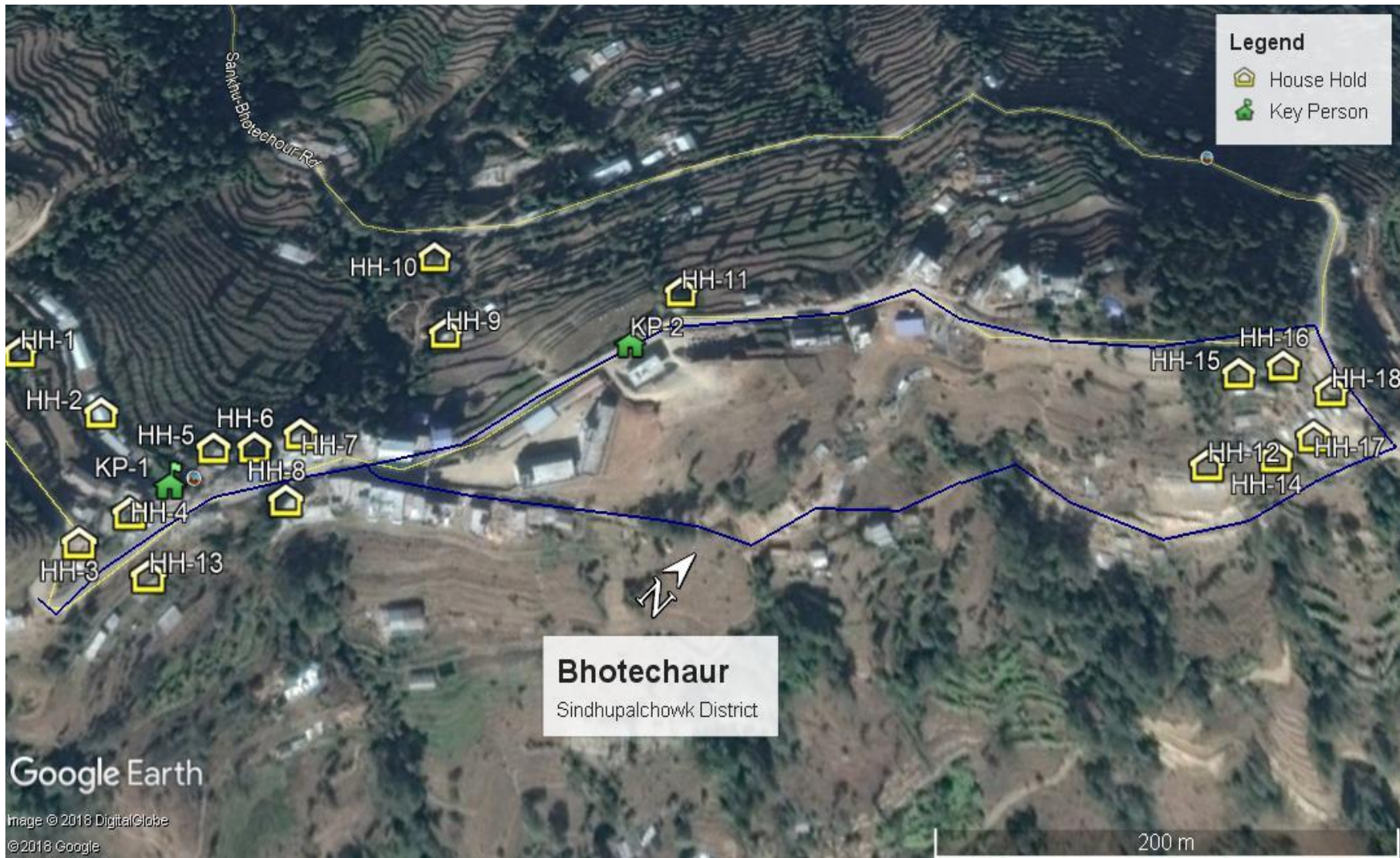




# Study Area : Bhotechaur village



# Botechaur Village





# BOTECHOUR VILLAGE



# Bhotechaur village

Classification based on Class and Caste

Bazar area

Below bazar area in  
the hill slopes

Tamang village

Key Person Interview  
In depth Interview  
Questionnaire Survey

Analysis and Interpretation

**Tamang Area**



**Bazar Area**



**Less Land holding Chaulagain**



## Key Person Interview

- Information on
  - About village
  - Climate
  - Climate change
  - Livelihood
  - Agriculture
  - Water supply system
  - Education
  - Development activities
  - Women involvement
  - Challenges and Problems

## In depth Interview

- Information on
  - History of personnel lives
  - Climate
  - Climate change
  - Livelihood
  - Agriculture
  - Folk lore



# Questionnaire survey

**Household details  
(18)**

**Individual Details  
(26)**

**Male (11)**

**Female (15)**

**Role of Climate**

**Climate Change Perception**

Agriculture

Domestic Activities

Temperature

Animal Husbandry

Rainfall

Extreme events

Market

Landslides



# Results &





# HOUSEHOLD AND INDIVIDUALS DETAILS

Number of Individuals	Male	Female
Overall	11	15
Chaulagain	9	11
Tamang	2	4
Brahmina	9	11
Buddhist	2	4
Near to road	5	8
Away from road	6	7

Category	Number of Households
Chaulagain	13
Tamang	5
Brahmina	13
Buddhist	5
Near to Road	9
Away from Road	9
Land owned < 12 Roopani	10
Land owned > 12 Roopani	8

# Major Crops





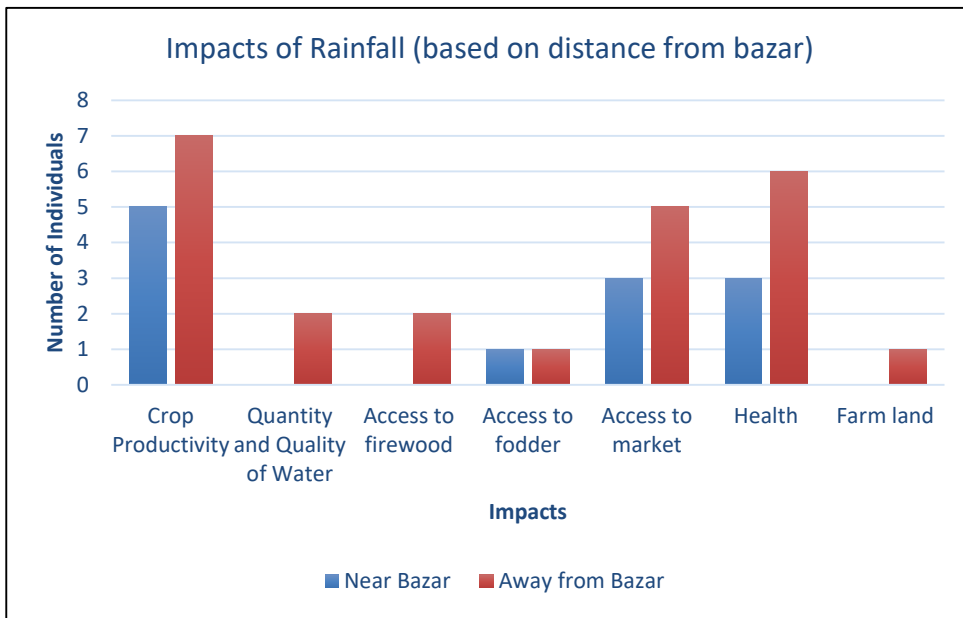
# Water Facilities





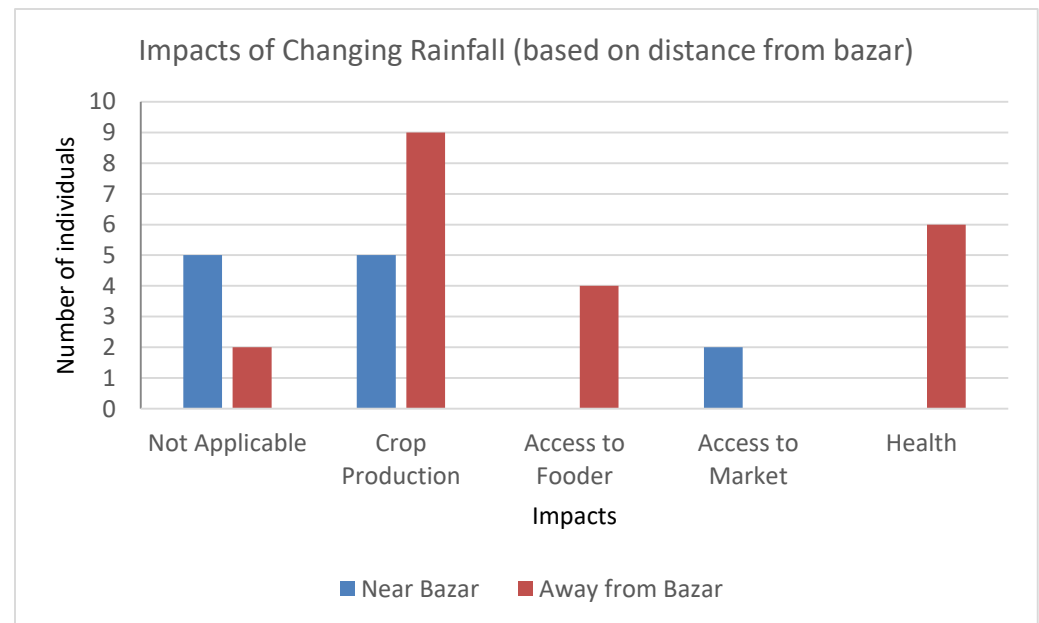
# ROAD CONDITIONS



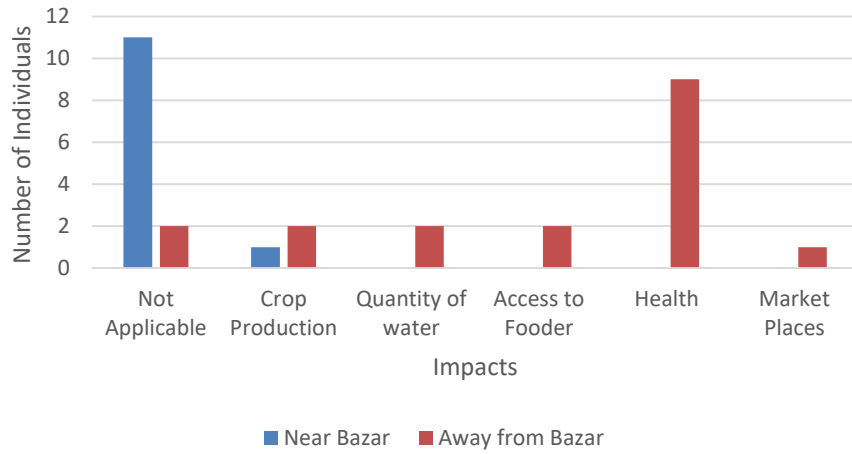


- More impact on people living away from Bazar
- Bazar – No impact on
  - Water – Pipe water supply
  - Access to Fire wood – Alternative energy (Gas)
  - Farmland- Alternative income (Business)

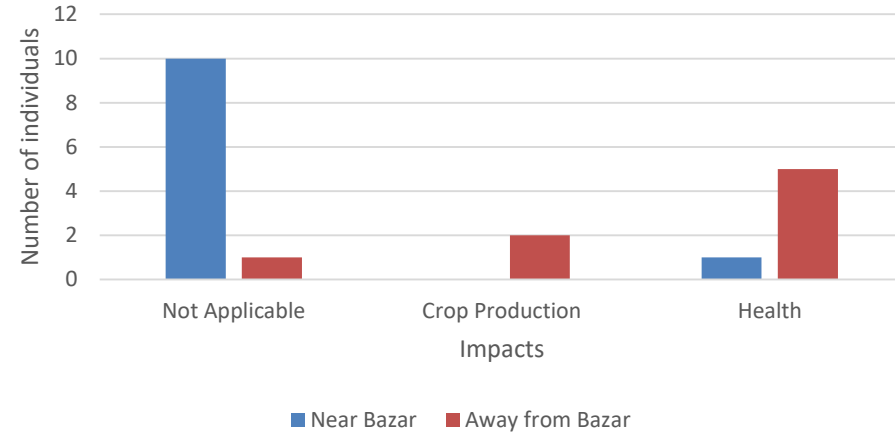
- Bazar people- Do not bother about rainfall change (But access to market due to hard roads)
- More impact on people living away due to dependency on Agriculture, Animal husbandry and poor living conditions



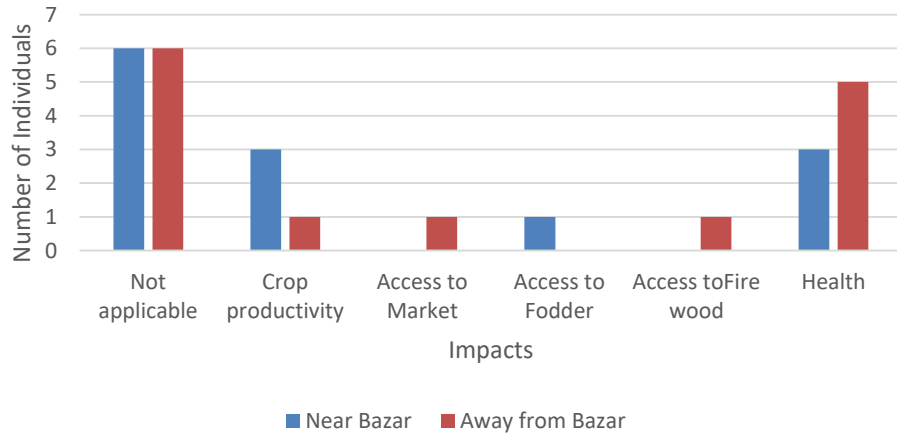
Impacts of Cold Temperature (based on distance from bazar)



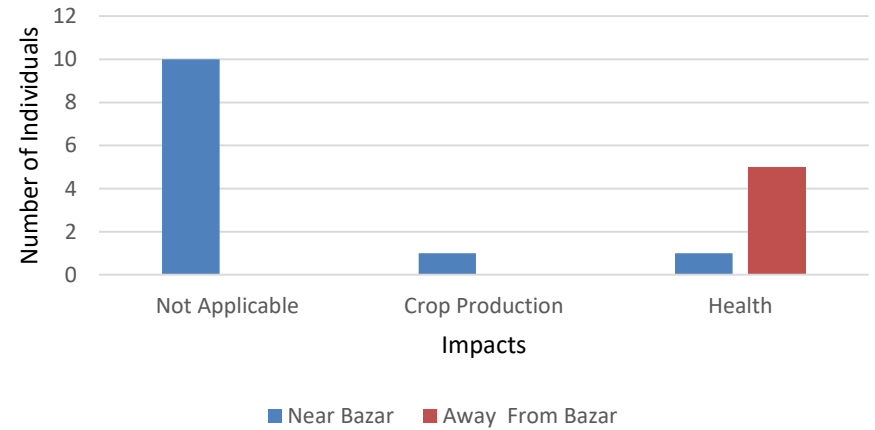
Impacts of changing Cold Temperature (based on distance from bazar)



Impacts of HighTemperature(based on distance from bazar)



Impacts of Changing High Temperature (based on distance from bazar)



# Impacts of cold and warm temperature

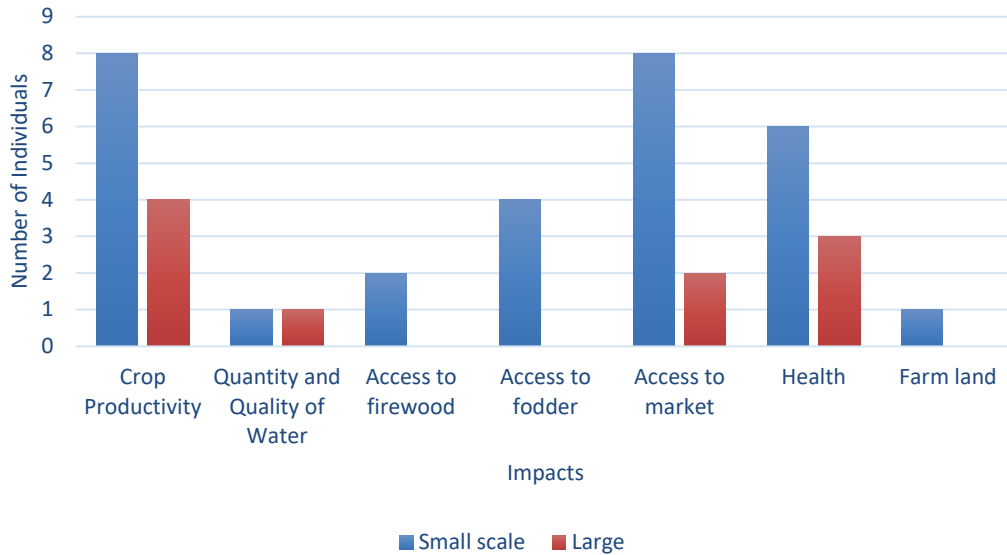
- Cold temperature causes relatively high impacts on people living away Bazar
  - High impact on health
- Warm temperature doesn't have impact on both groups
  - T is not too high even in summer
- Health impact – prominent in people living away Bazar
  - Tin roofed houses – Heat stress

- Tejnath Chaulagain, age 67

“Land used to be covered by frost which froze for 2-3 days due to extreme cold in winter. But I don’t observe those kind of things nowadays.”



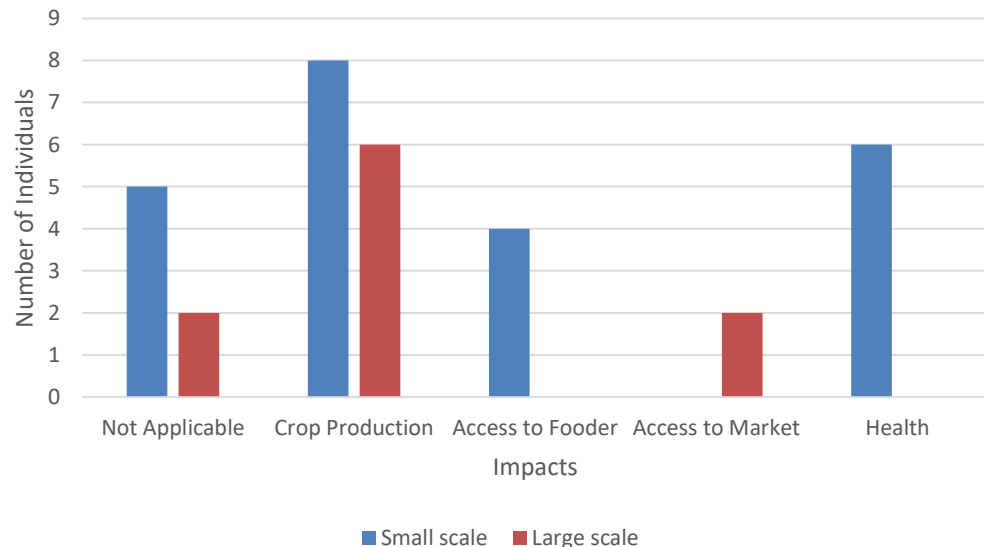
Impacts of Rainfall (based on land ownership)



- Both present rainfall and changing rainfall pattern have relatively high impact on small scale farmers.
- Access to fodder, firewood and impact on farmland- No impacts for the large scale land holders (Due to better socio-economic condition)

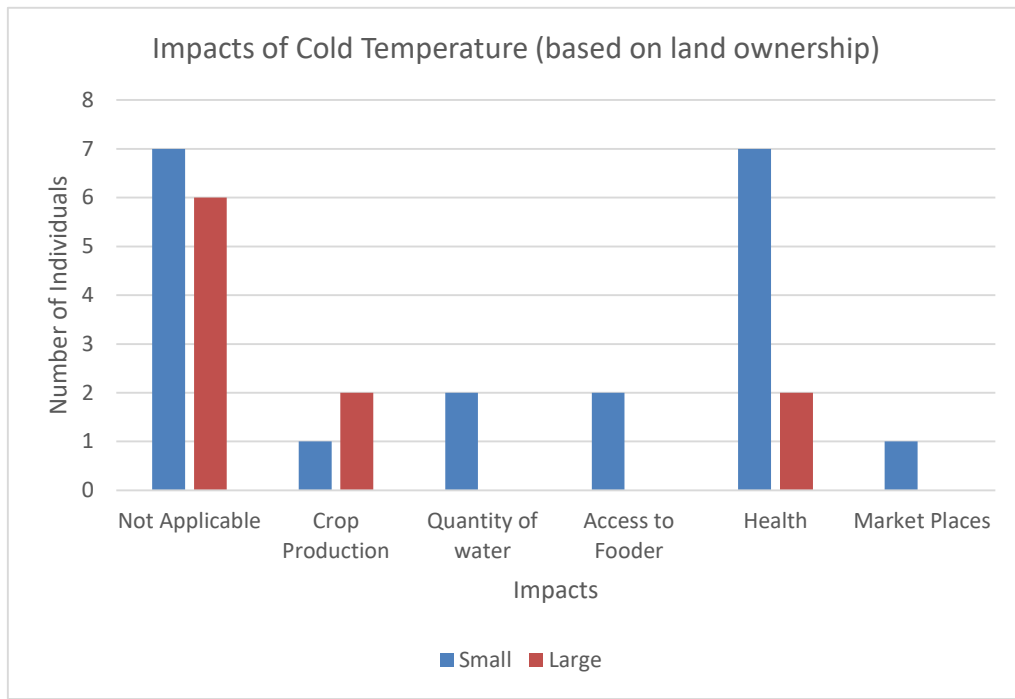
- Small scale farmers – production is mostly for consumption and village market
- Large scale farmers – production sells outside
- Poor road conditions due to changing rainfall pattern affect marketing

Impacts of Changing Rainfall (based on land ownership)



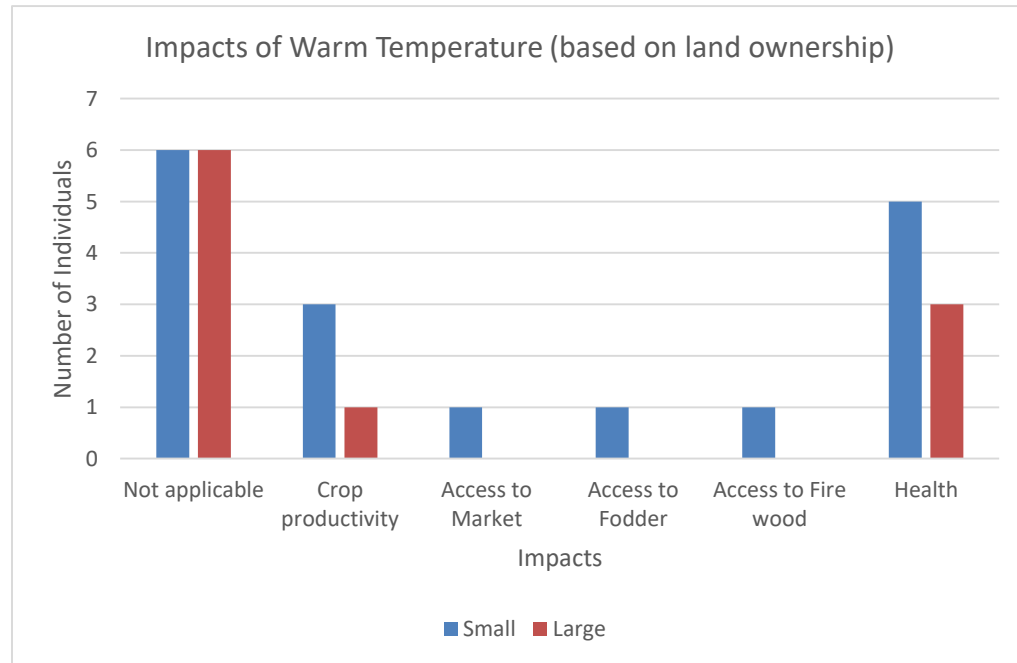
# Tejnath Chaulagain, age 67

- This year I showed the seeds to **prepare for saplings in 12,14<sup>th</sup> of Jestha (End of May)** and I had to plant the saplings right after one month on **14,15<sup>th</sup> of Ashadh (End of June)** but due to lack of rainfall, I had to plant on **30<sup>th</sup> of Ashadh (Mid July)**”



- Small scale land owners have relatively high impact from Temperature
  - Poor housing condition
  - High exposure to outside environment

- Small scale land holding farmers have more impacts on health due to high and low temperature – common cold, heat stress



# Taranath Chaulagain, 62 years old

“In the past due to **more hot weather** in summer, we used to **suffer from malaria and chicken pox**, but nowadays **summer is not that hot** and we don't suffer from those diseases. The land would be **covered with ice, 2-3 feet deeper** but now it doesn't happen.”



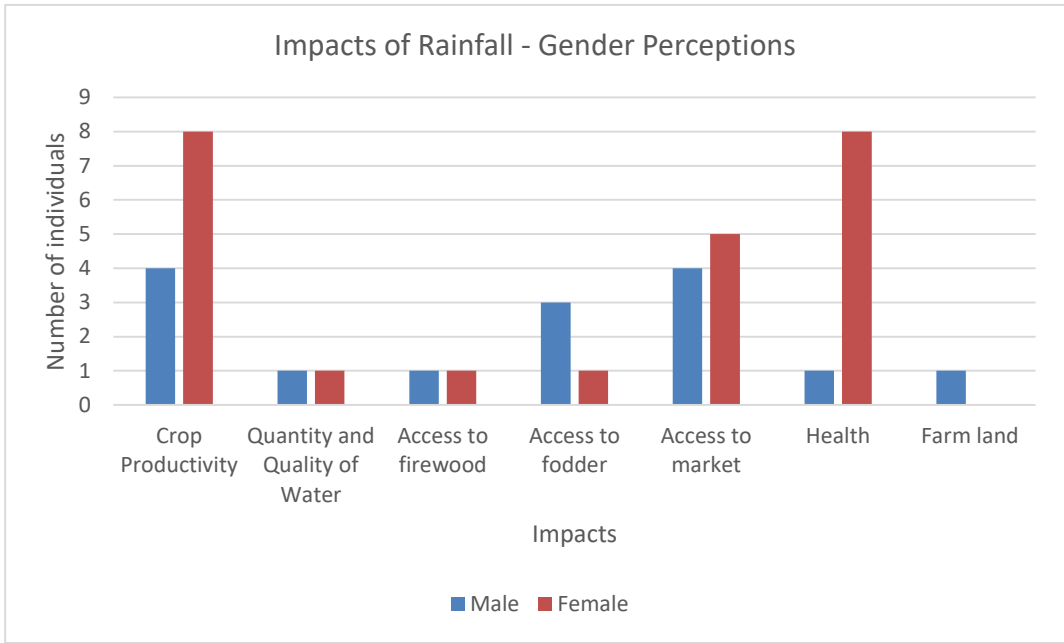
When we asked who collects the water, Shree Man Tamang replied,  
**“Mothers need water”**





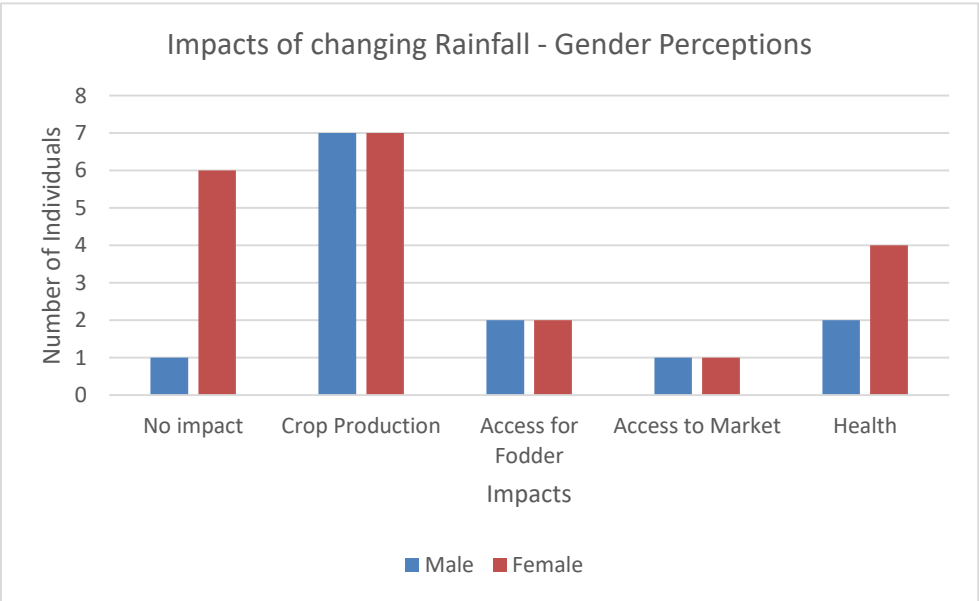
# Roles of Men – Multiple Task

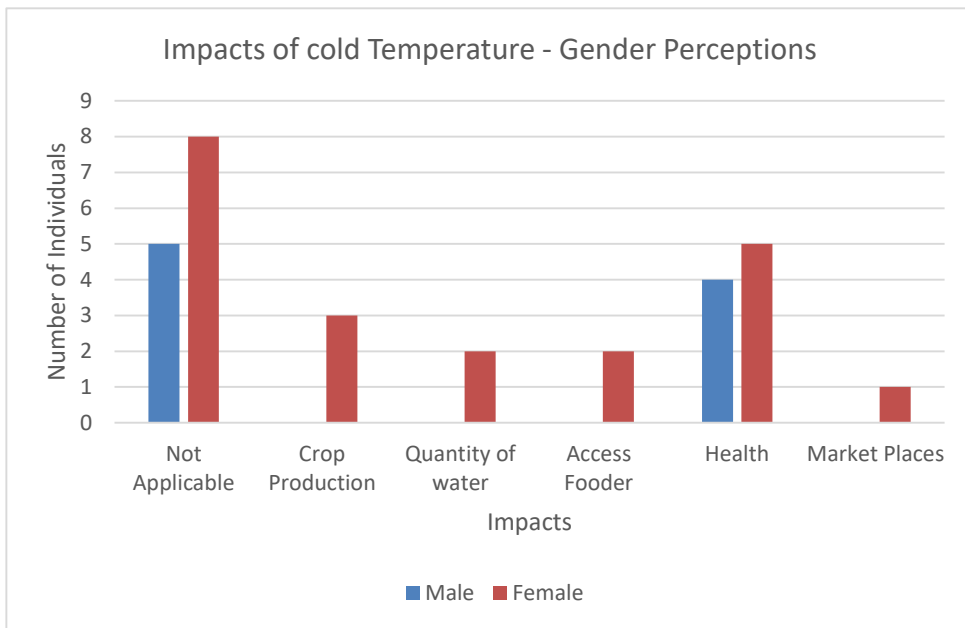




- Females are more concerned about crop production and health aspect compared to men
  - Women are involved in post harvest processing and have more knowledge on reduction of yield
  - Concern on food security at home
  - Health impact on children

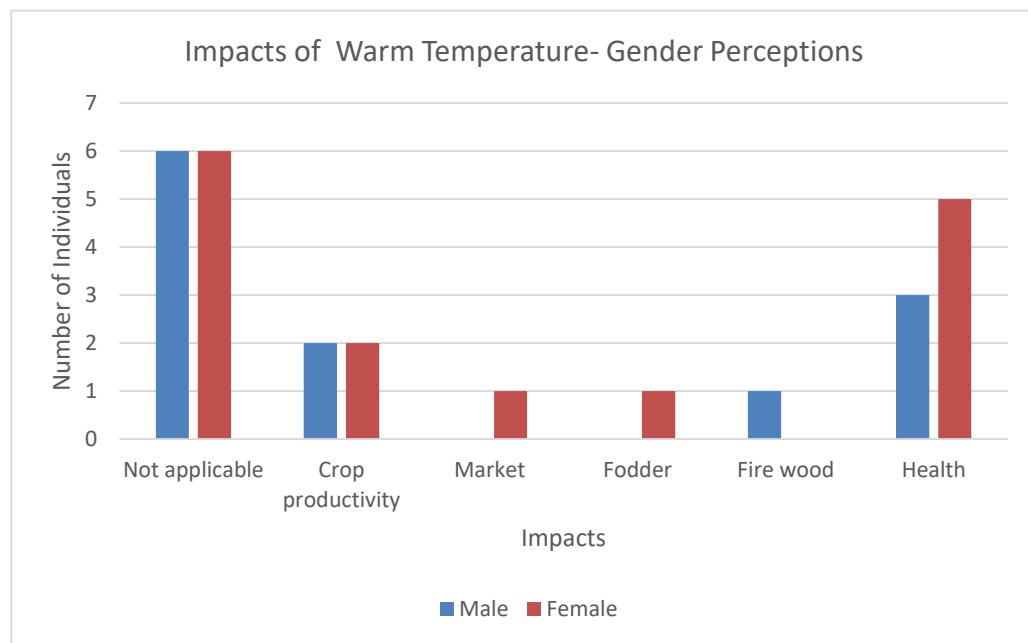
- Females do not have much idea about climatic changes compared to males
  - Less exposure to outside world
- Both are equally concerned about crop production with changing rainfall





- Females have more concerns about impacts of temperature than men
- Both men and women concern about health impacts

- Since the sample contains rich and poor households both, there is high response on Not Applicable category also





# Anecdotes

- Sita Devi Chaulagain, age 63

“After finishing the paddy planting work in hot, we have a culture of eating Curd and beaten rice on Ashadh 15 and celebrate the completion of cultivating our major crop. Similarly, after a month we finish removing weeds from the paddy crop as a second phase of cultivation which is very necessary and during this we enter into the land with water, so get cold. That’s why we have culture to eat rice pudding on Shrawan 15 to celebrate the progress of our work.

But now we do not get done with planting the saplings by Ashadh 15 and consequently weed removing works by Shrawan 15. We have been celebrating these cultures since my childhood and before. But nowadays I think that there is shift in the rainfall than before.”

# Anecdotes

“Khola Hanumante Baadi Aayo Vanthe  
Bagai Iyayo Gegaru  
Baari lai rukhe mal halera hunthyo  
Karma rukho ke garu...”

- She meant that, flood came over in Hanumante river, it brought sweeping sediments, Lands are dry, can be made fertile putting fertilizers. But my karma is dry, what shall I do?

“Lekaimaa baata charimaa jharyo  
Pahelo Pakheti,  
Madara (river) baina (Bagina) gharama aama chhaina  
Sanima le lakheti

- She meant that, Birds with yellow feathers fly down the hills, Madara River stopped flowing, and mother is not home, step mom chased.

# Anecdotes

“Paani maa paryo rimi ra jhimi

Purba disha garjiyo megh

Tyo gharmaa jaane man chhaina mero,

Yetai bata haanchhu beg

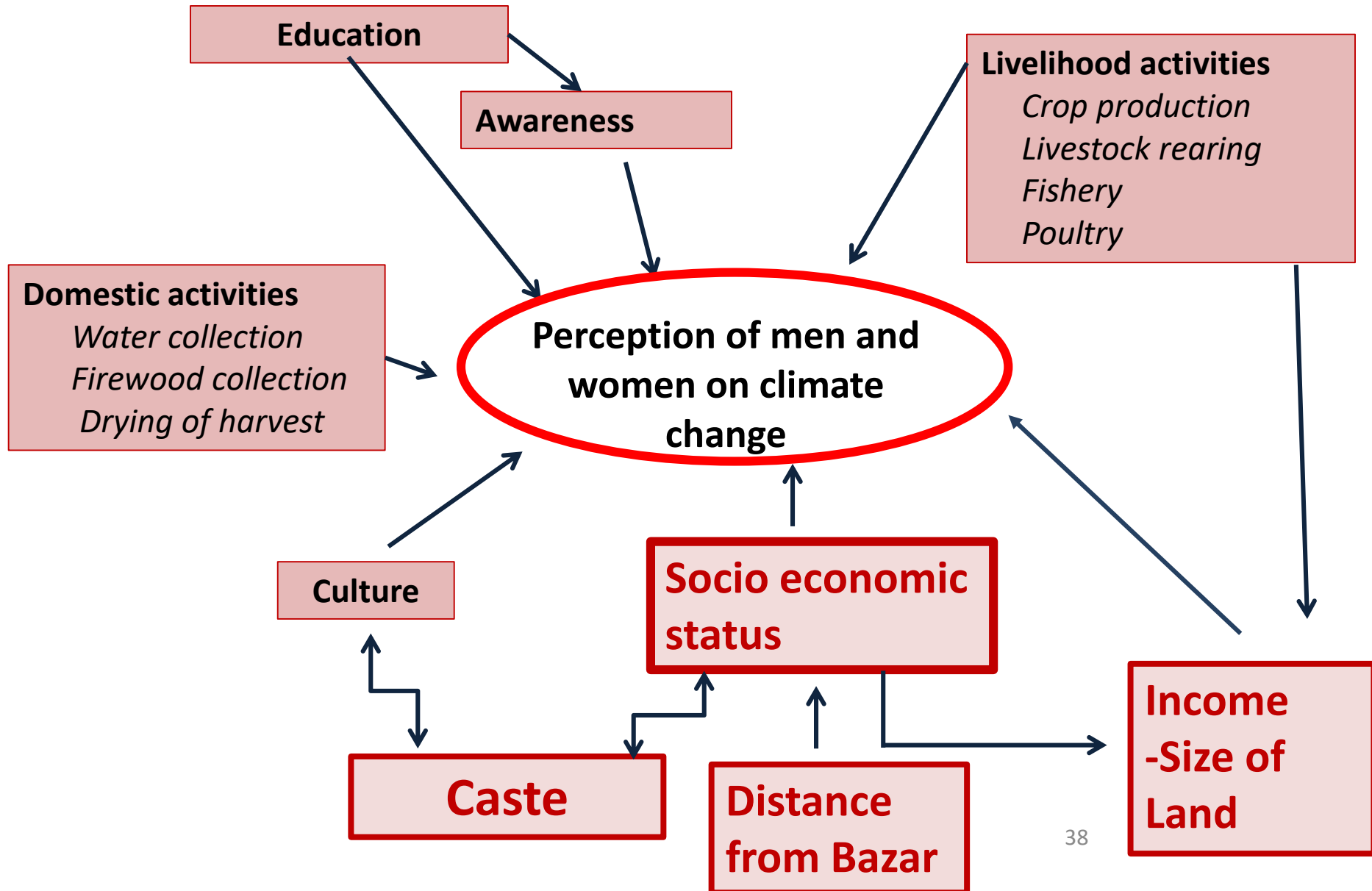
- She meant that rain fall rim jhim (sound of rain) and thunder sounds from the east, I don't want to stay in that (husband's) home, so I will run from here itself.

# Limitations of the study

- Exploratory study
- Very small sample size due to limited time availability
- Interactions between multiple parameters cannot be derived due to small sample size
- Hence, firm conclusions cannot be drawn

**CONCLUSION**

# Factors contributing to perception of climate change -





Thank you!