

**Training Report**

**Village Risk Assessment  
with the PACDR tool  
(Participatory Assessment of Climate and Disaster Risks)**



**April 7 – April 15, 2017  
Gimdi Village, South Lalitpur**

**Submitted by:**  
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## Introduction

In order to introduce the PACDR village assessment tool in Nepal, the long standing BftW partner SAHAS (Group of Helping Hands) Nepal was interested to organize a PACDR village training for seven staff members. The advantage of a training on-the-job is obvious: practical exercises in real situations help trainees to learn and adopt the tool much more efficiently. And at the same time, SAHAS Nepal and the village benefit from the results of the risk assessment which prepares the field for project activities.

SAHAS Nepal had chosen the village of Gimdi as it lies within the new project area of the next project phase, starting in April 2017. SAHAS Nepal will be able to use the results of the assessment for participatory project planning with the population of Gimdi.

The PACDR tool allows communities to assess climate, natural, and human-made hazards, to identify their impacts and existing coping strategies and to develop appropriate adaptation strategies which respond more effectively and sustainably to current and future challenges (see Appendix 2 and 3).

## Gimdi village

Because of the training setting, 12 men and 12 women of the village were asked to participate in the assessment. They should come from different age groups (young, middle, old) and socio-economic backgrounds (well-off, medium, poor) in order to represent the village realities.

In an ordinary community assessment, the group should be larger but also representative.

Several weeks before the training, SAHAS Nepal prepared a brief profile of the village.

**Name:** Gimdi VDC (composed of 9 wards)

**Location:** South Lalitpur, almost 50 kilometres from district headquarters, 5 hours' drive rough road from Kathmandu

### Climate situation

Increased dryness or no winter rain in winter, late but intense rain during summer, sometimes flood and landslides, regular water sources dried up due to earthquakes at some places in the village.

### Socioeconomic situation

- Mixed communities of Brahmins/Kshetris, Janajatis, Dalits and endangered communities such as Baram: 461 households according to District Profile by District Development Committee (DDC)
- Mostly farmers, involved in cereals, cash crops (ginger) and vegetables cultivation, dairy farming, organic coffee production, etc. for their day-to-day livelihood
- Nearby market centre is Chapagaun, which is around 35 kilometres from the village

### Specific characteristics

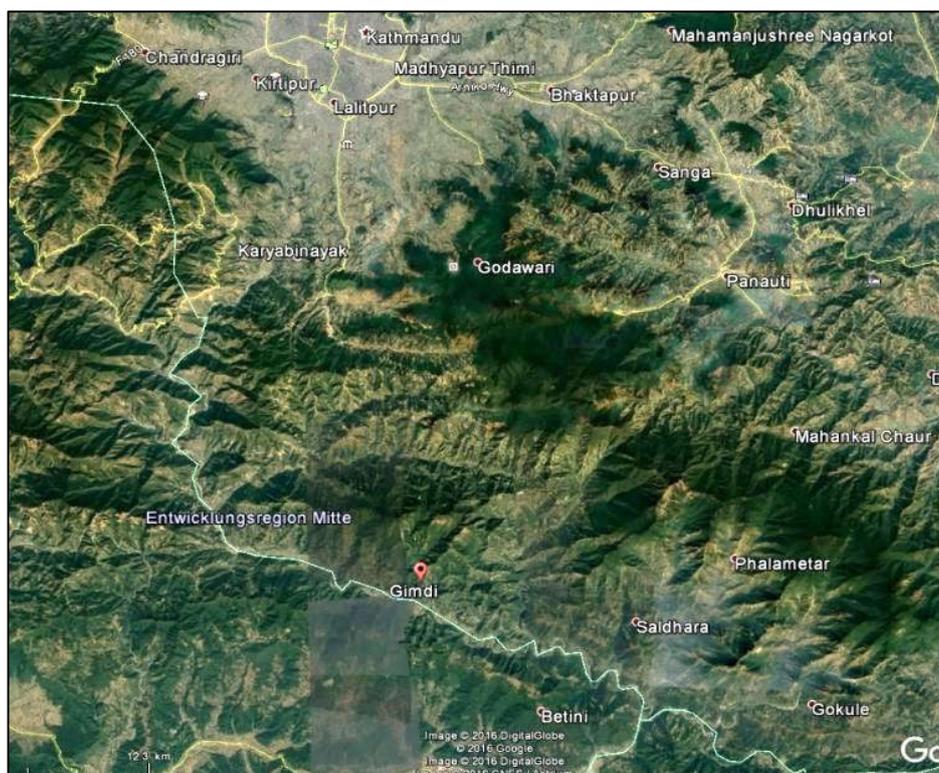
- This VDC is famous for producing organic coffee and even coffees are exported to other countries. Due to this, farmers do not use chemical fertilizers and pesticides in upper belt particularly for coffee and vegetables cultivation, however in lower belt they use pesticides during paddy cultivation.
- Often referred as the most remote areas of Lalitpur districts

### Challenges

- Difficult terrain, due to which farthest living communities have to walk around 2-3 hours to reach the village centre
- No regular means of transportation (during monsoon there will be no transportation due to landslides)
- No advisory facilities on agriculture and livestock farming

### Relation to SAHAS Nepal

We have forged good relationship with the local community leaders, progressive farmers, teachers, government workers from VDCs, etc. Based on this, we can presume it will be easy for us to identify the potential men and women for the proposed training.



**Day 1: 7<sup>th</sup> April: Getting started and Introduction of the PACDR tool**

The first day of the training was held in the SAHAS Nepal headquarters in Sanepa/Lalitpur. After the presentation of the training participants (name, function, working area), the founder and Executive Director of SAHAS Nepal, Dr Surendra Shrestha gave a brief overview of the NGO SAHAS Nepal and its projects.

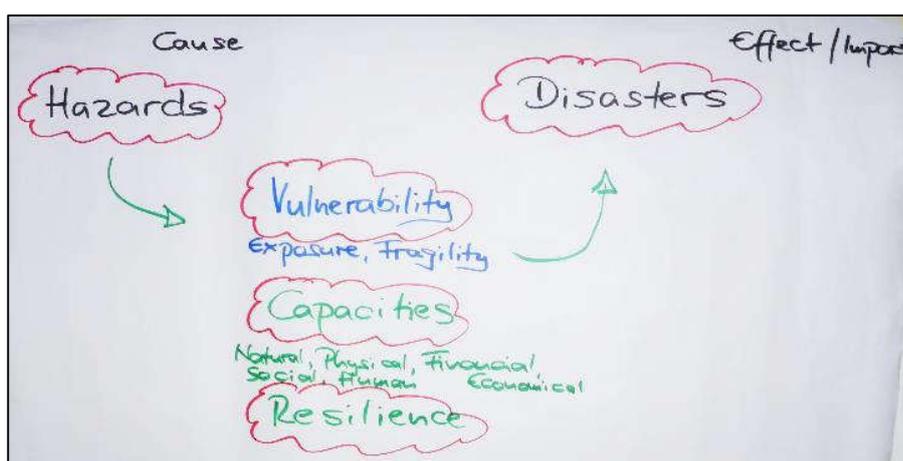
The training itself started with the presentation of the objectives by the trainer Gottfried Horneber.

Objectives:

1. Improved skills and capacities to help communities to accomplish risk assessments
2. Practical learning of the PACDR tool (content, methodology, attitude, challenges)
3. Better understanding of climate change impacts and coping strategies in communities

This was followed by a discussion about climate change: What do you know about climate change – signs, causes, impacts and responses?

The key concepts, terms and definitions in the field of climate change and disaster risk were discussed to have a common understanding during the workshop. Several of the key terms were translated into Nepali.



Terms		Coping Strategy	
Climate Change		संरक्षण रणनीति	
जलवायु परिवर्तन		Adaptation Strategy	
Hazard	Disaster	अनुकूलन रणनीति	
प्रकोप	विपदा (विपत)	Resilience	Exposure
Vulnerability	Capacity	उत्थानशील	सम्मूखता
संकरासन्नता	क्षमता	Sustainability	GHG
Impact	Assets	द्विगोपना	हरित गृह ग्याँस
प्रभाव/असर	सम्पत्ति	Effectiveness	
Mitigation	Risk	प्रभावकारी	
व्युत्पीकरण	जोखिम		

Then, an overview of the PACDR tool was presented: origin, objectives, opportunities, limits, functions for participatory planning and the 6 modules of PACDR.

Several days before the training, each participant had been given the PACDR manual to already become familiar with the tool.

At the end of the first day, the team discussed the programme of the village training and organised the different tasks and responsibilities (translation, note taking, logistics, transport, etc.).

### Day 2: 9<sup>th</sup> April: Travel to Gimdi village

Departure at 8.30 from Kathmandu. Arrival at 14.30h in Gimdi.

Arrangements for accommodation and training venue.

Team meeting: Discussion of the programme and the methodology, practical hints for the facilitation, preparation of the meeting hall (school). Chat with village people.

### Day 3: 10<sup>th</sup> April: Welcome and introduction of village analysis

The session started with the introduction of the training program by Mr. Dipesh Neupane, Technical Coordinator of LIFT project. Following it, every participant introduced him/herself to show their representation from different wards of village. Mr. Gottfried Horneber, the facilitator of the training explained the two objectives of training to the participants:

1. Assessment of climate and other risks in Gimdi and how the village responds to them
2. PACDR training of SAHAS Nepal staff



Picture 1: Local participants during introduction session, Gimdi village

People were asked how they perceived **Climate Change**. Their views are listed below:

- Increase in temperature during winter (feeling less cold)
- Early flowering of coffee plant due to increase in temperature
- Occurrence of disease and pest in ginger (yellowish in the leaf of ginger), damping of ginger

- Untimely rainfall i.e. no/less rainfall when it requires while heavy rainfall during short span of time when it's not required
- Incidence of black disease in cauliflower
- Drying up of water sources

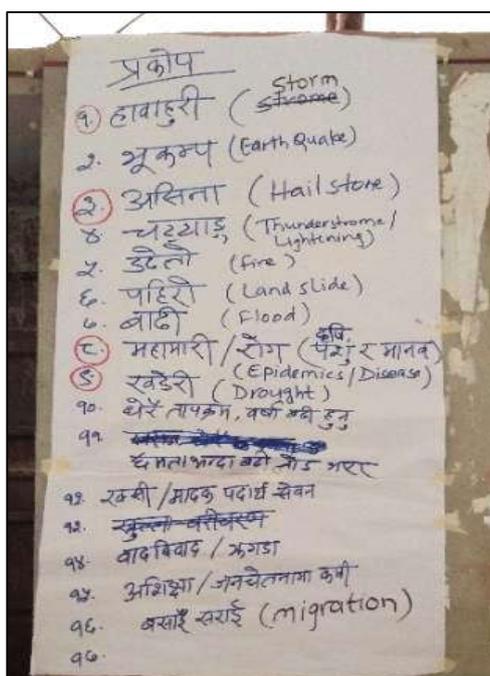
Participant perception on why **Climate Change is happening**

- Land use change i.e. converting agricultural land to settlement
- Man-made activities
- Increase in population
- Not enough worshipping god (religious perspective)
- Increase in GHGs concentration

After getting their perception, Mr. Hom Sen BK, SAHAS Nepal staff, Udayapur explained participants about GHGs and their effects on increasing temperature ultimately leading to global warming and climate change.

**Hazards in Gimdi village**

Participants identified 16 different social and climatic hazards in their communities. From these they prioritized the four most important hazards based on its severe impact on their livelihood which included: Windstorm, Hailstorm, Epidemics and Drought



Picture 2: Hazards listed by participants in Gimdi Village

**Q.** We know now that climate change is happening but what can we do to stop it and return to previous condition? (Asked by an old man)

**Ans.** Yes, it's difficult to reduce the emission completely but what we can do is to reduce the emissions through different technologies, even on local level. Though developing countries emit very little amounts, we need to be responsible for the reduction as the atmosphere is common and whoever emits, we are the ultimate brunt of changes. What is relevant in Gimdi is especially the development of effective adaptation strategies.

**Impressions of participants as to the meeting**

- They said session was good. Got to learn new terminologies like hazard, disaster, adaptation, mitigation, etc.
- GHG reduction should be implemented in our behavior. It should not be limited in talking.
- They found this program different from other programs: interactive, participatory
- They showed eagerness to learn more.

### Transect Walk

After giving a brief introduction of the following program to all participants, the assessment team was divided into two groups for a transect walk in the village. Each group was led by a local person. It aimed to walk around the village and interact with locals to understand their living conditions, for example how they are living with what difficulties, which resources they have, etc. It aimed to observe the existing hazards and the way it affects the resources and people.

#### Group 1: Katunje, ward 2 of Gimdi village

The group first went to upper part of Gimdi village named Katunje ward 2. They observed the area and interacted with locals collecting the following information:

- They have sufficient vegetables
- Land size holding: Maximum 15-16 ropani<sup>1</sup> (rich owners) and minimum 2-3 ropani (poor Dalits)
- The area is an organic certified village so they don't use pesticides
- Coffee planting is a common practice and major cash crop in the area. One local has planted 400-500 coffee plants earning approximately NPR 500-700 per plant. There is currently the invasion of insects and pests and drought in coffee plants, most of the plants are damaged leaving few plants. This leads to a huge loss of income.
- Use of bio-pesticide: Though locals were taught about bio-pesticide preparation by HELVETAS earlier, most of them could not put it into practice.
- Drinking water source located at a very distant place so during summer there is water scarcity for drinking and irrigation
- Land fragmentation is also a major concern. There used to be over grazing, however after converting to community forest (10 years ago) with the support of District Forest Office (DFO), open grazing is stopped.
- Fuelwood as major cooking energy source, they use in average about 450 Kg per month.

#### Group 2: Ward 5

The second group of SAHAS Nepal team went to the lower part of the Gimdi village. Their observations during walk and information obtained while interacting with locals are described below:

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<sup>1</sup> 20 ropani = 1 hectare

- Gimdi village, inhabitation of nearly 512 HHs, is found to be dominated mostly by Magar and Tamang communities with few (10-12) HHs with Dalit.
- Dalit communities mostly hold the non-irrigated upland with low production, however they have livestock for their livelihood.
- Major occupation is agriculture, however nowadays they have started pig and poultry farming as livelihood opportunities while migration is quite common with at least one person from each HH.
- The major crops are paddy, maize, mustard, wheat, vegetables (cauliflower, cabbage, onion, potato) while they are found to cultivate some cash crops like ginger, coffee, banana. Mostly farming is self-sustaining, however they sell their cash crops for income.
- They are highly dependent on fuel wood for cooking purpose with a consumption of nearly 560 Kg per month in average. They have a community forest called Bhairavnath Salghari community forest which provides wood once a year. Mostly they collect wood from nearby farm land.
- For light, they get electricity from 4 water mills, producing 3 KW per unit. During winter when water flow is small, every household has solar as alternative for electricity.
- They have little access to the main market, hospital and bank, located in the Lalitpur metropolitan city, located 6 hrs bus drive from the village. The area is connected to the cities by two mud roads which are functional mostly for the whole season except two months during monsoon season. The frequency of public transport is small (2 buses per day).
- For communication, they have now NTC, NCell, Skype service which was different when we look back 3-4 years ago. At that time, they used to communicate through paper mail exchange.
- They have started to collect money and rotate it in the community as credit through a multipurpose saving credit. It somehow supports the livelihood of needy people who could not sustain food for more than 3 months.
- Occurrence of human and plant diseases are reported to be quite common in the area. They are found to mostly suffer from Diarrhoea, Jaundice, vomiting, and typhoid during dry summer season. They suffer from loss of crops due to pests and diseases, particularly in vegetables, potatoes and some cereal crops. They use some bio pesticides which do not seem to be very effective in controlling pests.
- For irrigation, they have managed to use water from nearby streams using pipes which are functional during monsoon, while during wintertime there is water scarcity. They had constructed a water tank earlier to manage water for wheat, which is now no more in use. To adapt to this, most of them have changed their crops from wheat to buckwheat and mustard which demand less water.
- Regarding climate hazards, most areas are fully covered by vegetation with some exposure to landslides. Only few households are found to be exposed to floods. During monsoon, crop land close to rivers is flooded reducing or destroying the production in those areas.

Overall reflection of village after field visit: The village seems to be quite well off and self-sustaining in terms of production and energy. Exposure to climatic stress like landslides and floods has not yet reached a disastrous level. When looking at the accessibility to facilities like education, market and health, with the increasing trend of climate change and weather extremes, the village might become more vulnerable.

**Day 4: 11<sup>th</sup> April: Women's day**

Because of lack of time on the previous day (transect walk), the team worked on **Module 1** from 9:00 to 10:00. Module 1 helped to gather basic information on the planned SAHAS Nepal project and its context. In the case of Gimdi, SAHAS Nepal will extend its running LIFT project to this new village.

Main intervention sectors will be food security, agriculture, livestock, climate change, health, education and infrastructure. Objectives are the improvement of agricultural production and income, the creation of farmers' groups and associations to enhance collective actions, access to government and other funds and improved community resilience in times of climate change. Activities will consist of capacity building, awareness building, technical training, creation of village farmers' groups (CBO) and networks (MC, CBNO). Target groups will be farmers with a special focus on women (70 – 80%) and ethnical minorities.

During "women's day", 4 different exercises were accomplished with the 12 female participants only. The reason for separating men and women is that peer work and discussions provided gender specific information of how women and men perceive their village. Women and men worked on the same exercises. This allowed the comparison of similarities and differences and discussions about the reasons for different perceptions.

After having introduced the women to the programme of the day, two groups of 6 women each were formed. One group drew a resource and hazard map of Gimdi, the other group developed a seasonal calendar including seasonality of hazards.

**Exercise 1: Hazard mapping**



Picture 3: Hazard map of Gimdi village



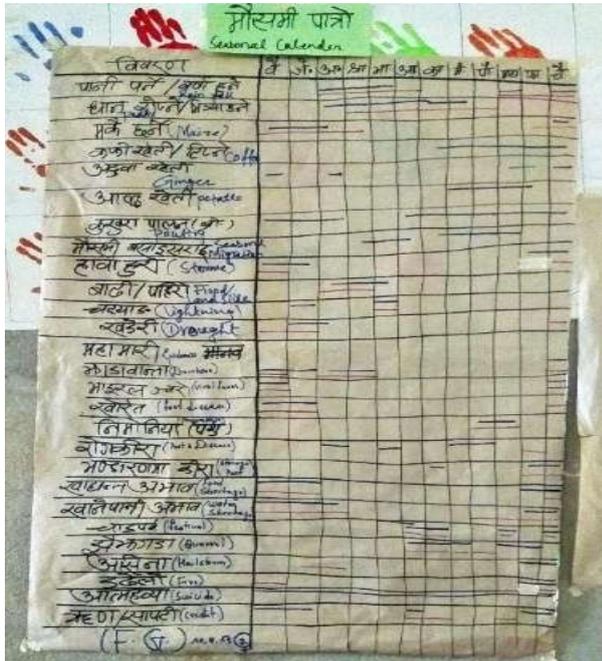
Picture 4: A participant explains hazard locations

**Findings**

Participants identified some location specific hazards for instance drought, landslides and floods while hailstorms, windstorm, wild fire and earthquake affected whole communities.

- Landslides seemed to be affecting most of wards i.e. 2, 3, 6, 8, 9
- Drought is concentrated to only small areas
- Flood is reported nearby Bagmati river during monsoon season flooding whole paddy field affecting few HHs

**Exercise 2: Seasonal Calendar**



Picture 5: Seasonal Calendar

As a surprise for the team, they mentioned suicides as a monthly incident in their area. Similarly, they reported fainting, fever and vomiting as a regular case in children, particularly girls in the school, which they linked with traditional activities.

**Exercise 3: Vulnerability matrix (all 12 participants)**

विकार Particular	पुरुष Land-use	महिलाहरू (most diseases)	सूखो Drought
पानी (Water)	5	9	2
जलमाल (Forest)	2	0	2
भूमिगत (Land)	2	0	3
आवास/घर (Housing)	9	0	0
विद्यालय (School)	2	0	0
सडक (Road)	2	0	0
कृषि (Agriculture)	2	3	2
पशुपालन (Livestock)	9	2	0
सुनाकापार (Sand bags)	2	0	0
सामाजिक-संघ (Social groups)	9	0	0
सामाजिक-मेलना (Local harmony)	0	0	0
श्रमिक (Culture)	9	0	0
स्वास्थ्य (Health)	9	0	0
स्त्रिय (Skill)	0	0	0
अंतर (Willingness)	2	0	0

Picture 6: Vulnerability matrix

**Findings**

- Major income generating activities: Agriculture (paddy, maize, ginger, coffee and potato), poultry and pig farming
- Hazard listed: storm, landslides/flood, lightening, drought, epidemics, hailstorm, fire, water and food scarcity
- Major changes compared to 20 years back:
  - Shortening of rainfall with more irregularity
  - Increasing trend of epidemics including human epidemics (Diarrhea) and pneumonia in livestock
  - Invasion of pest and diseases in crop is very high compared to 20 years back
  - Complete shift of incidence of hailstorm and fire hazard
  - Longer water shortage
  - Increasing incidence of lightening in the area
  - Diversified livelihood opportunities

**Findings**

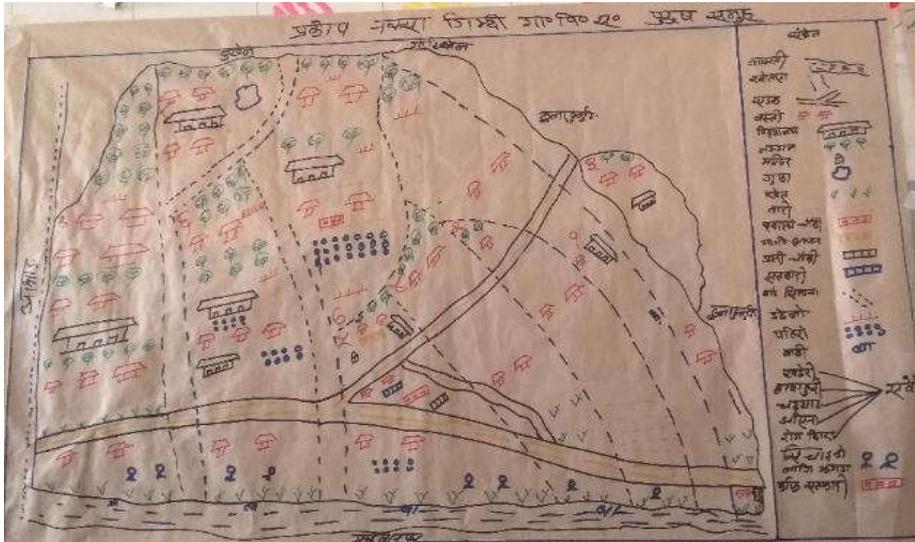
Most important hazard: Landslide followed by drought

Resources highly affected: agriculture, forest, water, livestock and health.

The hazards are affecting the resources most which are the base of their subsistence and income.



**Exercise 1: Hazard mapping**



**Findings**

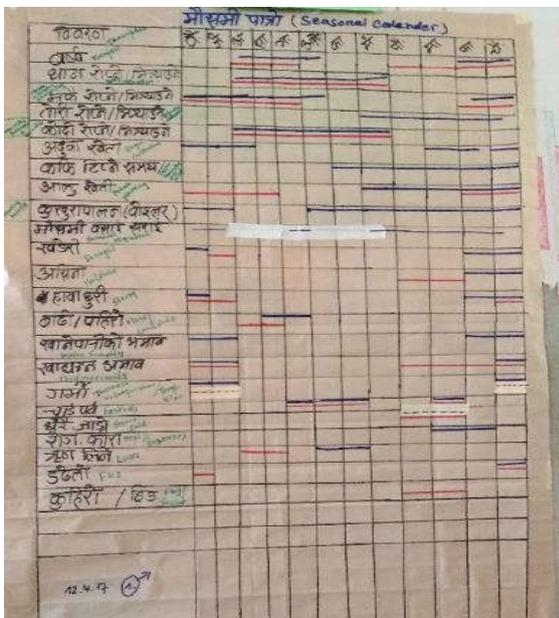
Landslides are located only in few wards like 6 and 7, flood in nearby seasonal river while fire cases reported in all forest area.

Water conflict seemed more occasional nearby Bagmati River during dry period.

Picture 8: Hazard map

- Previously there were huge landslides but now due to tree plantation there is a reduction
- Flood impact was higher earlier than now
- There is a high risk of river floods but they haven't done any preventive measures
- Water flow of Bagmati river was higher than today
- Today there are massive conflicts during water scarcity period as to access to irrigation water

**Exercise 2: Seasonal Calendar**



**Findings**

- Major income generating activities: Agriculture (paddy, maize, mustard, millet, ginger, coffee, potato), poultry
- Hazards listed: drought, storm, hailstorm, landslides/flood, water scarcity, food scarcity, fire
- Major changes compared to 20 years back:
  - Decrease in rainfall period and no cases of fog
  - Diversified livelihood opportunities
  - Longer drought and fire period
  - Hotter in summer and less cold in winter
  - Water scarcity however also led to crop diversification which decreased food scarcity
  - Shift in period of occurrence of hailstorm and windstorm

Picture 9: Seasonal Calendar

Male participants were more active and everybody was contributing during the exercises.

During discussions, the following points were mentioned

- Nowadays it's difficult to predict rainfall
- Some parts have rainfall while other have no rain during winter season
- Potato farming is not very important today
- Labour activities are slowly vanishing. Instead they got involved in some furniture activities
- Occurrence of drought is irregular
- Incidence of diarrhoea decreasing
- Earlier food sufficiency was for 6 months; during the remaining months, they were depended on wild species like bhyakur and githa, etc.
- It took them 7-10 days to bring food from other regions

Observations from participants

- All information provided is real and true
- What is the truth, is revealed in the seasonal calendar
- Seasonal calendar is more interesting than hazard map
- Most of the participants are affected by pests and diseases
- In former times, there was high frequency of wild fire due to open grazing exposing land to more drought. With afforestation in the last 20 years, wildfires became less frequent.

**Exercise 3: Vulnerability Matrix**

Resource	खेत/पशु	सिंचाइ	घाँस/खाद	सिंह	संख्या
पानी	2	9	9	9	4
जंगल	2	2	2	2	6
साँढा	2	9	9	9	5
भवन	0	0	2	2	2
सडक	9	0	9	9	3
छाँडो	2	0	9	9	3
कृषि	2	2	2	2	6
पर्यावरण	2	2	9	9	2
ज्यामा	9	9	9	9	3
सडकारी	2	9	9	9	8
बानो	0	0	0	0	0
साँढा	9	0	0	0	9
स्वास्थ्य (Health)	2	2	9	9	2
खेत (SK)	9	9	0	0	2
	29	98	98		

**Findings**

Most important hazard: Drought

Resources highly affected: agriculture, forest, water, livestock and health.

It affects the resources most which are the base of life.

Picture 10: Vulnerability Matrix

During discussion

- While selecting major hazards, some said fire, landslides and flood affect only limited areas while drought, storm, hailstorm and lightening, pest and diseases affect whole area of Gimdi village.
- There were small social groups earlier, now they are converted into cooperatives like women cooperative, multipurpose cooperative and non-timber cooperative.

Interesting points

- When there is no water then drought occurs. How does drought affect water sources?
- Earlier water level was high, snow was there. Now there is rapid drying of rivers, canals. If this situation persists then we can't say desertification won't happen (old man sharing his thought).
- Reduction of rainfall by 40%
- A few years back there used to be a canal with sufficient water but now there is not.
- Intense rainfall for certain period.

**Exercise 4: Coping Strategies**

प्रकोप Hazard	प्रभाव Impact	साधना रणनीति Coping Strategy	प्रभावकारिता Effectiveness	दिगोपना Sustainability
खुदरो Drought	अनुपयोग्य खेत (बास)	धान रोप्ने समय १०-१२ दिन अघि रोप्ने	१	१
	अनुपयोग्य खेत (बास)	छिटो पानी खार्को लाग	१	०
	रोग किरा बढेको	अधिक विपरीतको लागि	२	१
	पानीको अभाव सुक्को	टोकनपक चासोको खाए	२	१
	रवासमा समस्या	चासो राखिएका	२	१
		बिजिलोलाई अल्पा ठाउँमा राखियो	२	१
रोग/किरा Disease/Pest				
हावापानी Weather	घर छानो/बिजिलो	दानेमाथि काठको लेड राखेर	१	०
		नास राखियो	२	१
	बोटबिस्तारो अति	बोटबिस्तारो अति	१	०
	खास संवेदनशील अति	पाइपलाइन पुगे	२	१
		पाइप पुगे तलमाथि खस्यो रोप्ने कार्य	१	०
		बिजिलो अतिमा तलमाथि खस्यो खस्यो अति	२	२
		तर पुन रोप्ने	२	२

**Conclusion**

Hazards are increasing. These hazards affect mainly the base of life of Gimdi Village, water, forest and soil. Livelihood related activities like agriculture and livestock are mostly affected. Health effects are even more visible. Negative impacts are crop loss, pests and diseases, water scarcity, health problems. Good thing is that communities are responding towards these impacts. Those responses are called coping strategies. Some are less effective and sustainable but the point is that the village people are doing something. They said: "Now we need to improve the strategies to prepare ourselves for future worsening changes."

Picture 11: Coping Strategies

Impressions of participants

They expressed satisfaction to have participated in the training. Though they know their village, through the different exercises they got a broad picture of their village. They found the seasonal calendar quite new and informative.

Results from group exercise

The participants were asked to stand up and go to the side which represented their answer to the question.

Questions	Left side		In between		Right side	
How did you find the exercise?	9	Easy	1	medium	2	Difficult
How much you learn?	0	Nothing	3	something	9	a lot
Did you learn new things?	12	Many			0	No
How is your energy level?	12	Fresh			0	Tired
Will I come tomorrow?	12	Yes			0	No

### Impressions from trainees

Dipesh: Participation of men during hazard mapping was good and more participatory compared to women

Manoj: Overall impression was good. Men were more active than women. More accurate data on drought. It seems men did not show much interest in potato crop.

Prem: Today's session was more interactive and participants went deeply to dig the information during exercise. Hence reality came out.

Pragya: She showed satisfaction as it was her first time to facilitate. Participation was ok. While assisting the facilitator during coping strategies, she found it difficult to get the information from participants.

Shraddha: Work completed on time. Compared to exercise done with women participants, men participants provided more detailed information even located the hazards affected in the last 10 years. It was difficult for her as a facilitator to limit the participants when they wanted to add much more information.

Eike: Participation was good and the men were completely integrated during exercise.

Hom: Since first day exercise, he found it easy to facilitate. He found participation of women more participatory compared to men. Men seemed getting more backward. He thought to see more hazard areas in the map but unfortunately, he could not find it. He thought it is essential to prepare ourselves and collect information prior going to community so that while getting information from them we can validate the information and it will ease the exercise and save our time.

Snehalata: With her previous experience on using seasonal calendar, she thought it would be easy to get the information especially on rainfall time. But while facilitating it was the information most difficult while dealing with elderly person. She found it easier to get information from younger people than from older ones. Young people are very quiet while older person try to convince with their long experiences. However, she was satisfied with the results of the exercises as most of the information came out whilst with the women, not all information was gathered.

## **Day 6: 13<sup>th</sup> April: Adaptation Strategies**

### **Summary session showing similarities and differences by trainees**

Already in the evening of the previous day, the trainees formed small groups and compared the work of women and men to find similarities and differences. During ordinary assessments, the comparison should be done together with the participants. To save time and because of the training setting, the team did this work without village participation.

### **Hazard mapping**

- Men and women had different understanding of hazards affecting their livelihoods.
- For men, drought is most important hazard while for women, landslides are most important.
- Men identified fire everywhere nearby forest
- Men participants located the conflict zone nearby river during the dry season.

### Seasonal Calendar

- For both men and female participants, agriculture (paddy, maize, potato, coffee, ginger, and mustard for men) is the major source of subsistence and income for the village.
- Coffee and ginger farming is the recent farming trend in the area
- Seasonal migration is common now, did not exist 30 years back
- Major hazards: drought, landslides, flood, hailstorm, windstorm, wild fire by men whereas epidemics by women (diarrhoea, vomiting, etc.)

#### Changes compared to 30 years back

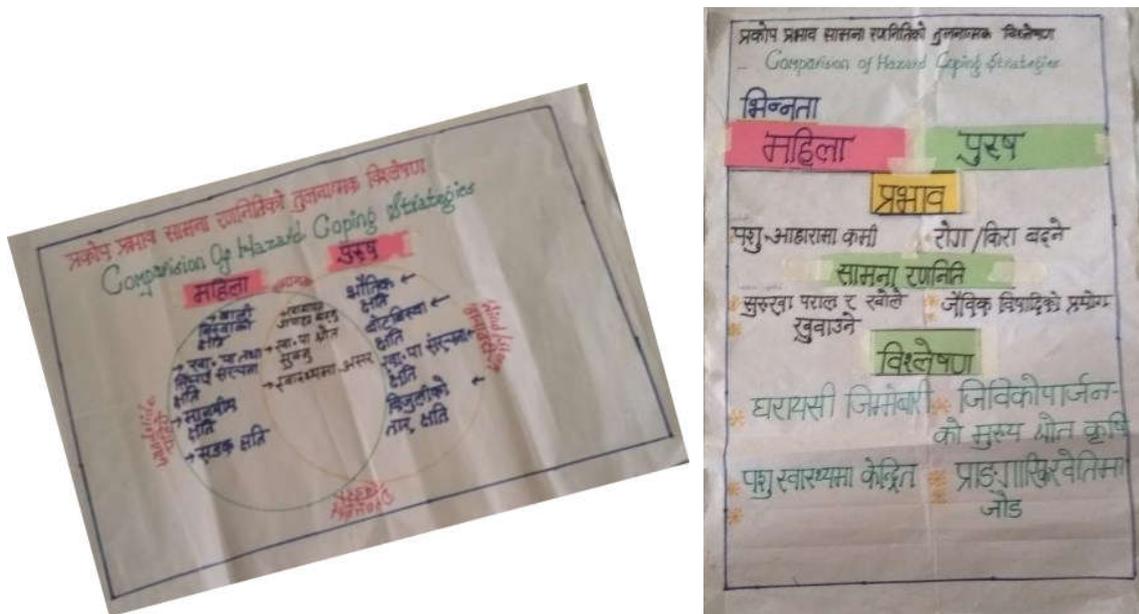
- Irregularity in rainfall with overall decrease in rainfall period
- Occurrence of frost, hailstorm and rainfall at a time during winters 30 years back
- Increase in temperature with more hotter days during summer and less cold in winter
- Increase in drought (men) while decrease by women (due to new irrigation facilities, drought is astonishingly felt less hazardous by women)
- Increase in water scarcity
- Wild fire decreasing with afforestation
- Diversified livelihood options
- Pests/diseases, hailstorm and windstorm (increase)
- Seasonality of loan varied

### Vulnerability matrix

- Men ranked drought as main hazard while women landslides but immediately followed by drought.
- Despite different hazards identified, agriculture is the key assets severely affected followed by natural resources such as water, land and forest. Especially for women, health is also affected due to hazards.

### Coping Strategies

<b>Hazards</b>		
<b>Men</b>	<b>Women</b>	<b>Common</b>
Windstorm	Landslides	Drought
<b>Impacts</b>		
Physical structure damage, plant damage, drinking water structure damage, electricity poll damage	Crop loss, destruction of drinking water and irrigation structures, human life affected, road destruction	Decrease of production Dryness of drinking water sources Health damage
<b>Analysis</b>		
<ul style="list-style-type: none"> <li>- Women focused on decrease in livestock fodder while men on increase of pests and disease</li> <li>- Coping strategies: feeding dry stalls and water (women), use of bio-pesticides (men)</li> <li>- Since women are more responsible for household chores they were more centred on health of livestock while men being responsible for income they were more concerned on organic farming.</li> </ul>		



Picture 12: Comparison of coping strategies by men and women

### Stakeholder mapping

It is important to know the different stakeholders in the village because every group should contribute its ideas and insights during the development of adaptation strategies. The training setting did not allow that the different stakeholders could participate, however during a real risk assessment, SAHAS Nepal should organise the participation of representatives of these stakeholders.

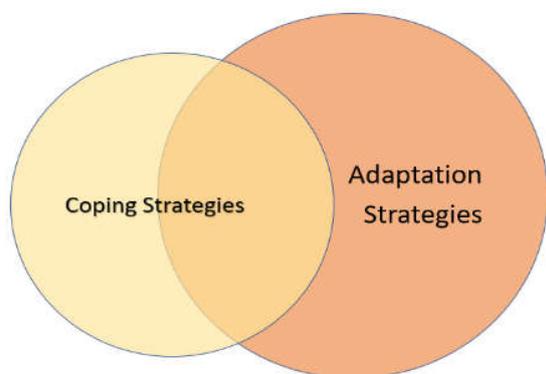
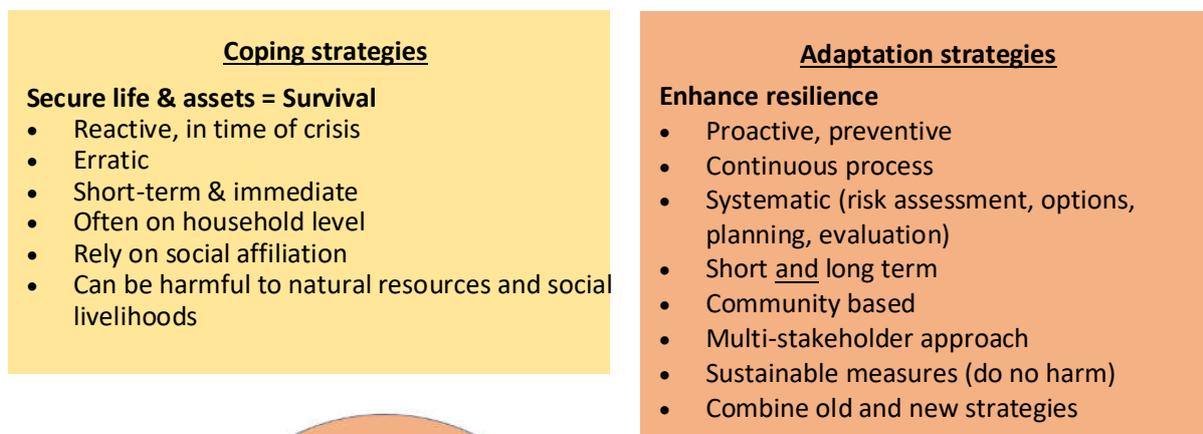
The participants mentioned the following stakeholders.



Picture 13: Village stakeholders

## Adaptation strategies

The trainer explained the difference between coping and adaptation strategies.



Effective and sustainable coping strategies in a given context are already relevant adaptation strategies. Very often, coping strategies lack the community perspective, the preventive planning and the multi-stakeholder approach therefore, effective and appropriate adaptation strategies have to be developed by the relevant stakeholders.

For this exercise, five mixed groups were formed.

They were asked to write on four cards the four most important adaptation strategies as to the identified hazards and impacts, keeping in mind the differences between coping and adaptation strategies.

After the group discussions, the cards were collected, publicly read and clustered according to similar contents. Then each participant was given 3 sticky dots to vote secretly the strategies most important to him or her.

### Results based on voting system

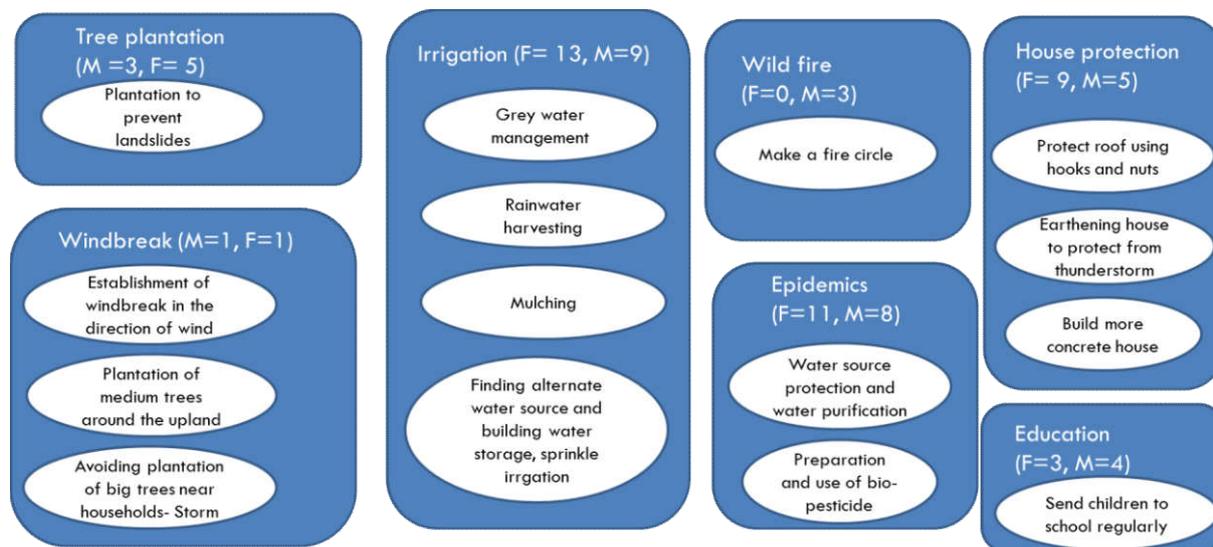
- 1<sup>st</sup> ranked strategy irrigation, followed by epidemics with least wild fire
- Wild fire strategy is voted only by men, women did not show any response to it.



Picture 14: Group Discussion for strategies identification



Picture 15: Voting for adaptation strategies



Picture 16: Voting results of adaptation strategies

Reflection of voting:

- During group discussion for adaptation strategies, participants seemed not clear about the difference between adaptation and coping strategies
- While voting they had prior concept to vote for the most important hazards instead of voting for strategies
- They believed that if they voted the major hazard which is severely affecting their livelihood then listed strategies will more likely to be supported by SAHAS Nepal.

Reflection from participants

Q. Most of the information and options are provided by participants themselves. Will SAHAS Nepal team and experts in the training provide some effective methods to deal with this changing climate?

Ans. In the coming weeks SAHAS Nepal team will visit the village again and sit with locals to discuss about these findings and propose some additional techniques. Together both sides will decide the best options for implementation.

Way forward and closing

At the end of the last exercise, the SAHAS Nepal Exec. Director came from Kathmandu to appreciate the results of the assessment and to talk with the villagers about the way forward after the assessment. SAHAS Nepal will discuss with them in the coming weeks and months about the planned project and relevant project changes and new activities because of new insights during the assessment.

As a mark of recognition of their presence during the workshop, each participant was given a watering can and a set of vegetable seeds (open-pollinated). No sitting allowance was payed to them, something less and less frequent in Nepal.

### Team sharing of the day and the village assessment

#### Positive

- Most fruitful day compared to previous days, learning many things about PACDR tools
- This was the first training organized in the field; other trainings are always inhouse trainings. Practical training is more effective
- It encourages participants to involve in whole analysis process
- Participants were confident and open
- Some tools can be used to quantify the data
- Very interactive and interesting
- Learned to use PRA tools
- Helps me to teach my local staff to use PRA and PACDR
- Improved facilitation skills
- Collection of comprehensive data in a short time
- Gender disaggregated perspective is very important
- I want to use PACDR now in my villages
- The tool focuses on the importance of existing capacities (coping strategies) and builds on them
- The small trainee team was necessary to allow extensive learning
- The presentation of the SAHAS Nepal project approach by the Exec. Director was clear and avoided false expectations

#### Negative/challenging

- Too little time for development of adaptation strategies
- No data on climate projections of the region available not allowing medium/long term planning
- Some difficulties of the villagers to understand scoring and ranking
- Lack of practical skills of PRA tools because during university training there was only theoretical teaching

### **Day 7: 14<sup>th</sup> April: Back to Kathmandu**

At 7:30, the team drove back to Kathmandu to celebrate the Nepali New Year 2074.

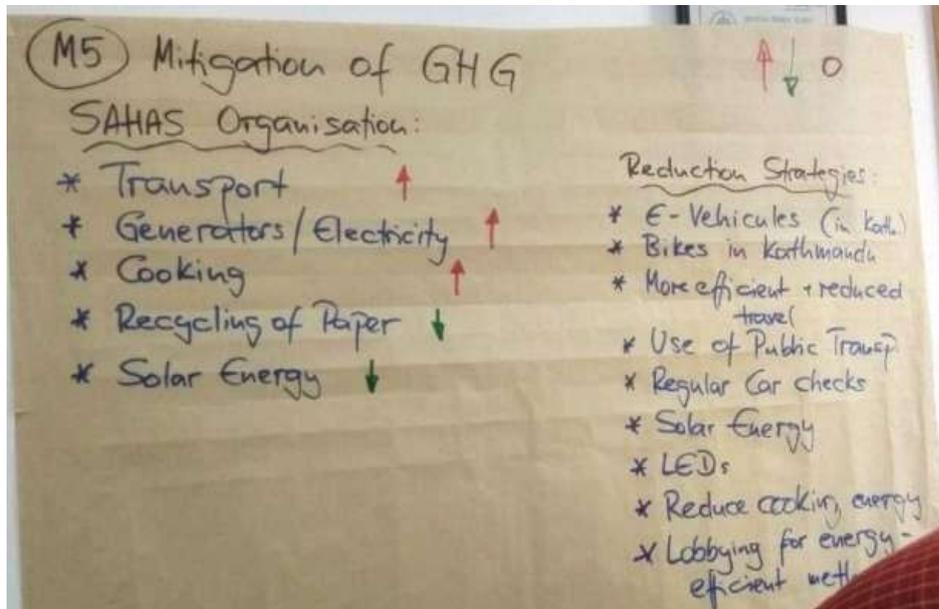
### **Day 8: 15<sup>th</sup> April in central office: Project mitigation capabilities and Revision**

The last two modules 5 and 6 of the PACDR tool are done only by the NGO.

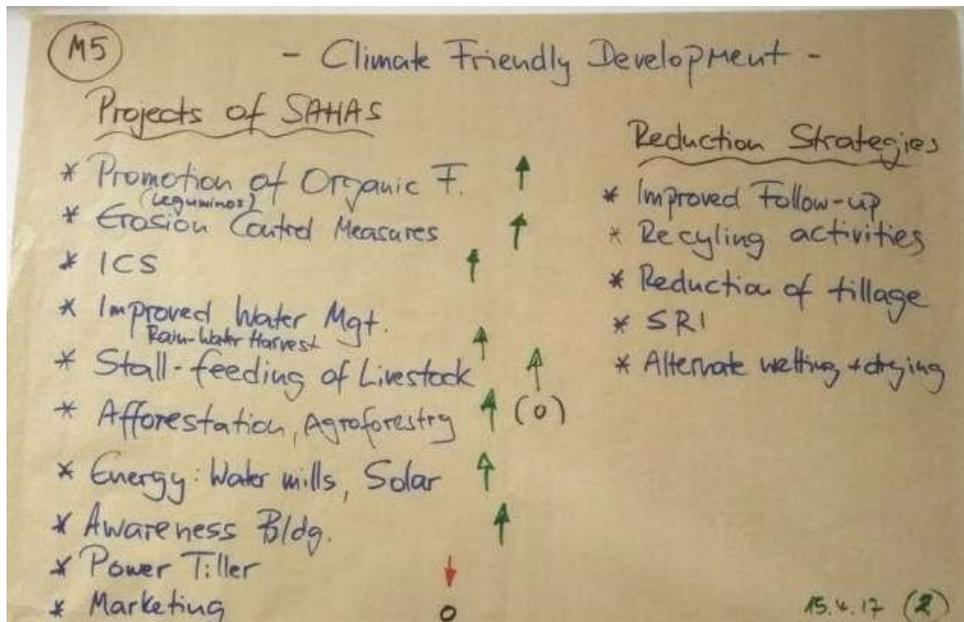
**Module 5** examines the **GHG emissions and mitigation potentials** of the organisation. We distinguished the GHG emissions caused by SAHAS Nepal as an organisation and the emissions caused by the projects of SAHAS Nepal.

At organisational level (administration, staff, vehicles, buildings), SAHAS Nepal emits GHG except for the use of solar power in district offices.

It was remarkable that most of the SAHAS Nepal projects are already mitigating or reducing GHG. Several strategies had been identified to enhance mitigation on both levels, organisational and project related.



Picture 17: GHG emissions of SAHAS Nepal organisation and reduction strategies



Picture 18: Project level GHGs emission status and reduction strategies (note that the green arrows should look down and the red ones up)

For **Module 6: Project Revision**, the summary table (see Appendix 4) helps to generate an overview of the major findings during the risk assessment and to discuss about necessary changes and adjustments of the project.

The team worked on an example to understand how the project revision should be made:

Most important hazards	Most vulnerable livelihood resources	Coping Strategies	Adaptation Strategies	GHG mitigation strategies	Relevant interventions for SAHAS	Partners	Appreciate feasibility under CC scenario
Drought	Agriculture	1. Use of alternative water source	1.1 Water tanks 1.2 Grey water collection 1.3 Solar/wind pump 1.4 Rain water harvesting	Solar pumps	Rainwater harvesting	VDC Extension workers	
		2. New drought resistant crops	2.1. 2.2. 2.3. 2.4.				
		3. Use of pest-tolerant varieties	3.1. 3.2. 3.3.				
		4. Shift of planting timing	4.1. 4.2.				
	Land						
	Livestock						
	Water						

#### Queries/comments at the end of the training session

- We should not lose our focus on poverty reduction while including GHG mitigation strategies
- In case of identification of innovations that could not be included in existing project/in case of not being accepted by BfdW, we need to approach other funding agencies for support
- Ellen suggested to improve coping strategies which are less sustainable

- Dipesh suggested to work with existing technologies and try to improve them
- Lack of government bodies monitoring the sustainability of their work
- Besides existing community level strategies, we need to add some innovations in the project which are long term, more preventive, proactive and sustainable
- SAHAS Nepal can start with a pilot phase in case of a completely new intervention
- Can we focus on very vulnerable target groups with the PACDR tool as they are the most vulnerable to climate change and are the major target group of SAHAS Nepal? (Yes!)
- Ellen showed dilemma on using such a tool while we need to work in our target specific areas.

### **Outcomes of training**

- Trainees along with participants are trained for the practical use of the PACDR assessment tool
- Common understanding of both men and women on different hazards in the village
- Farmers became aware on their capacities and learnt about their management based on years of experience.
- Identification of adaptation strategies and their prioritization

### **Learning and challenges**

- This risk assessment was more systematic and gender inclusive
- Simple and truly participatory
- Community level and bottom up approach
- Identify coping strategies and adaptation strategies
- Data (qualitative and quantitative) triangulation and validation approach
- Familiar with area and people (information validation/triangulation)
- Equal participation of old aged people
- Practice tool in the village during periods when there are less occupations (agricultural workload)
- The use of the tool is time consuming. Can be spread over several weeks, according to availability of people.
- Enough time to familiarize with climate change terminologies/concepts/differences
- Identify the main hazard and work on hazard specific adaptation strategies
- Unable to collect household specific information (community approach)
- Quantify the rank (vulnerability/coping) was not easy
- Expertise for climate projections is needed

### **Post-training activities**

- The Exec. Director asked every trainee to produce and send him a personal action plan in the next days
- The main results of the village assessment and the methodology of the PACDR tool will be reported to the other SAHAS Nepal staff in the next weeks and months
- Partner NGOs will be informed about the utility of the PACDR tool. Probably, joint risk assessments will be organised in villages.

## APPENDICES

### 1. Training programme

Timetable		Remarks
Preparation before the training	<b>Consultation of literature about climate change and hazards as well as the national political aspects in Nepal</b> SAHAS Nepal collects documents and information about climate change and hazards in Nepal and about national policies, strategies and plans to address climate change and disaster risks.	This activity prepares the work with Module 2, Exercises 1 and 2 (M2/E1 and M2/E2) of the PACDR manual
	<b>Thursday, 6<sup>th</sup> April 2017</b>	
11:00	<b>Arrival of Gottfried</b> Flight TK 726, Transfer to hotel Meeting with Surendra	
	<b>Friday, 7<sup>th</sup> April 2017</b>	
10.00 AM	<b>Getting started. Introduction to Climate change characteristics and impacts and the PACDR tool</b> <ul style="list-style-type: none"> <li>• Welcome and presentation of participants</li> <li>• Training workshop objectives and programme</li> <li>• Presentation of PACDR</li> <li>• Discussion and definition of key terms and concepts</li> <li>• Translation of key terms</li> <li>• Workshop Organisation</li> </ul>	SAHAS Nepal office in Kathmandu All relevant SAHAS Nepal staff
	<b>Saturday, 8<sup>th</sup> April 2017</b>	
	Personal preparation of the workshop	
	<b>Sunday, 9<sup>th</sup> April 2017</b>	
8.00 AM	<b>Travel to Gimdi (5h)</b> Village visit, introduction to village officials Team building, programme discussion, practical hints and particularities as to PACDR use in the village	Village analysis team
	<b>Monday, 10<sup>th</sup> April 2017</b>	
10.00-13.00	<b>Welcome and introduction to the village analysis</b> <ul style="list-style-type: none"> <li>• Presentation of participants</li> <li>• Presentation of workshop objectives, methods and programme</li> <li>• Introduction to the PACDR tool</li> <li>• Discussion on climate change issues: characteristics, reasons/origin, consequences</li> <li>• Discussion on hazards in the village</li> </ul>	Village analysis team and village participants (12 male + 12 female)

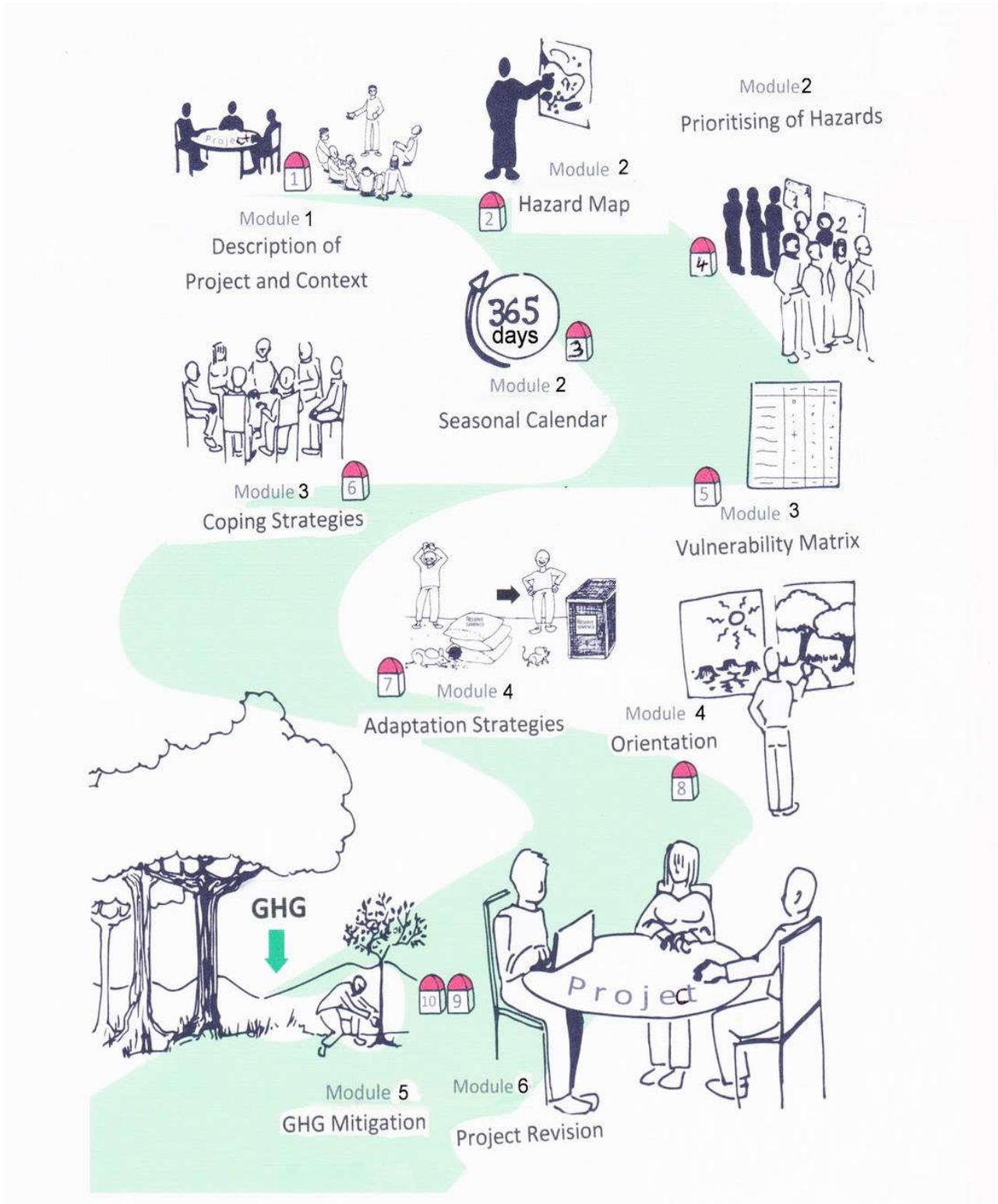
**PACDR Training Report, April 2017 – SAHAS Nepal**

	<ul style="list-style-type: none"> <li>Conclusions</li> </ul>	
13:00	<b>Lunch</b>	
14:30-17:00	<b>Field visit</b> Walk and talk, observe and comprehend the village and its context	Village analysis team
17:00-18:00	Sharing of impressions, lessons learnt, questions Preparation of following day	Village analysis team
	<b>Tuesday, 11<sup>th</sup> (women) and Wednesday 12<sup>th</sup> April 2017 (men)</b> <b>(Same programme for both days; first day with women's and second day with men's group)</b>	Village analysis team and either 12 women or 12 men
9:00-10:00	<b>Work on Module 1</b> Gather information on the SAHAS Nepal project and its context based on the "Guiding Questions for module 1"	Village analysis team Corresponds to M1
10:00-10:30	<b>Welcome and Introduction</b> Explanation of goals and objectives	
10:30 -12:30	Exercises in separate groups: <ul style="list-style-type: none"> <li><b>Exercise "Hazard Map" in group 1:</b> Draw a hazard map of the community</li> <li><b>Exercise "Seasonal Calendar" in group 2:</b> Prepare a seasonal calendar for hazards and other events.</li> </ul>	Corresponds to M2/E3 and M2/E4 Prepare necessary material
12:30-13:00	<b>Discussion (30')</b> of results of both exercises	
13:00	Lunch	
14:00-15:30	<b>Exercise "Vulnerability Matrix":</b> <ul style="list-style-type: none"> <li>Complete the Vulnerability Matrix in plenum</li> <li>Discussion (15')</li> </ul>	Corresponds to M3/E1
15:30	Coffee break	
15:45-16:45	<b>Exercise "Hazard-Impact-Coping Strategies":</b> <ul style="list-style-type: none"> <li>Complete the Hazard, Impacts and coping strategy exercise in plenum</li> <li>Discussion (20')</li> </ul>	Corresponds to M3/E2
16:45-17:00	Wrap up (Thanks for participation, impressions, conclusions, perspectives)	
Evening	Sharing of impressions, lessons learnt, questions Preparation of following day On Wednesday: Analysis of women's and men's work; preparation of results presentation	Village analysis team
	<b>Thursday 13<sup>th</sup> April 2017</b>	

PACDR Training Report, April 2017 – SAHAS Nepal

10:00-11:00	<b>Welcome and programme presentation</b> <b>Presentation of workshop results</b> <ul style="list-style-type: none"> <li>• Present results of the workshops: similarities and differences between women and men</li> <li>• Discussion of results</li> </ul>	Village analysis team and village participants
11:00	Coffee break	
11:20-13:00	<b>Exercise “Adaptation Strategies”</b> Introduction: <ul style="list-style-type: none"> <li>• Stakeholders mapping</li> <li>• Difference between coping and adaptation strategies</li> </ul> Exercise M4/E1: <ul style="list-style-type: none"> <li>• Group work on adaptation strategies</li> <li>• Clustering and ranking</li> <li>• Discussion of results</li> </ul>	Corresponds to M4/E1
13:00	<b>Lunch</b>	
14:00-15:00	<b>Conclusions and way forward</b> <ul style="list-style-type: none"> <li>• Conclusions</li> <li>• Discussion of next steps and follow up.</li> <li>• Impressions</li> </ul> <b>Closing</b>	Village analysis team and Exec. Director Surendra Shrestha
16:00	Final sharing of impressions, lessons learnt, questions, next steps	Village analysis team + Exec. Director
<b>Friday 14<sup>th</sup> April 2017</b>		
Early morning	<b>Travel back Kathmandu</b> <b>New Year celebration</b>	Village analysis team
<b>Saturday 15<sup>th</sup> April 2017</b>		
9.00 AM	<b>Finalization of modules 5 and 6</b> <ul style="list-style-type: none"> <li>• Discussion of the project’s impact on greenhouse gas (GHG) emissions and carbon sinks (<b>exercise “Project Mitigation Capacities”</b>, module 5)</li> <li>• Discussion of recommendations for project revision (<b>exercise, “Project Revision”</b> module 6)</li> </ul> <b>Sharing of lessons learnt and eye openers</b> by the team <b>Conclusions and way forward</b>	Village analysis team, Surendra, Ellen Kalmbach, BftW Corresponds to M5/E1 and M6/E1+2

2. The PACDR road



<p><b>M1: Project and Context</b> Description of the existing or planned project to be analysed</p>	<ul style="list-style-type: none"> <li>• M1/E1: Project and Context - Description of the existing or planned project to be analysed</li> </ul>
<p><b>M2: Participatory Climate change and Hazard Analysis</b> Combination of literature-based climate change and hazard informations and local community knowledge</p>	<ul style="list-style-type: none"> <li>• M2/E1: Climate Change and Hazards in Literature</li> <li>• M2/E2: Political National Aspects</li> <li>• M2/E3: Hazard Map</li> <li>• M2/E4: Seasonal Calendar</li> <li>• M2/E5: Alternative Exercise to Identify Hazards</li> </ul>
<p><b>M3: Participatory Vulnerability and Capacity Analysis</b> Participatory analysis of vulnerable livelihood resources, hazard impact and existing coping strategies</p>	<ul style="list-style-type: none"> <li>• M3/E1: Vulnerability Matrix</li> <li>• M3/E2: Hazard-Impact-Coping Strategies</li> </ul>
<p><b>M4: Participatory Identification of Adaptation Strategies</b> to strengthen capacities and resilience</p>	<ul style="list-style-type: none"> <li>• M4/E1: Adaptation Strategies</li> </ul>
<p><b>M5: Projects Mitigation Capacities</b> Assessment of project impacts on greenhouse gas emissions and identification of mitigation strategies</p>	<ul style="list-style-type: none"> <li>• M5/E1: Project mitigation Capacities</li> </ul>
<p><b>M6: Project Revision</b> Identification of recommendations for project revision</p>	<ul style="list-style-type: none"> <li>• M6/E1: Compilation of assessment results</li> <li>• M6/E2: Project Revision</li> </ul>

### 3. Participatory Planning and PACDR

