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Ministry for Foreign Affairs of Finland

RURAL VILLAGE WATER RESOURCES MANAGEMENT PROJECT PHASE III

INCOME GENERATION IMPACT STUDY

(RESEARCH AND STUDY REPORT)

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Executive summary

This study assessed the impact of income-generating activities supported by RVWRMP in Aalital Rural Municipality of Dadeldhura. The study is based on three specific objectives which sought to: 1) assess the impact of local residents' income generation (IG) in poly-houses and commercial farming on families' living standards; 2) identify the impact of project income generation intervention on work-based seasonal migration; and 3) assess the impact of project income generation intervention on women's status and independence in the family.

A sample of 32 farmers was selected from seven income generating groups to represent the income-generating member population, followed by seven focus group discussions with field observation. Purposive (non-probability based) sampling techniques were used in choosing the sample to ensure that all the types of IG groups were included in the research. Data were collected using questionnaires for individuals and focus group discussions, followed by field observations. The livelihoods Monitoring Information System (MIS) data were also cross-checked to verify the answers of the respondents and the groups' income. The collected data were analysed by using the documentation method, with tabulation and compilation.

The result from this study showed that the trainings and material support by the project has changed the farming habits, improved local diets, and led to significant increase of annual income locally. Two thirds of the families earned additional income by selling vegetables ranging from several dozens of thousands to several hundreds of thousands of rupees per year. The cultivated land area for vegetables increased by two thirds, of which one tenth was under poly-house development. Both production of fresh vegetables and sales to local markets more than doubled, and the number of farmers selling vegetables increased by more than 50%. This has naturally enabled more savings and investments, a better standard of living for families, and increased the status and self-esteem of the household within their community. The additional income was invested well: Children's education, housing and land, better food, clothing, and health care. As much as one third of the income was saved in cooperatives or banks.

The study found that women handle money for daily household expenditures while often their husbands are working elsewhere. Instead of waiting for remittances from their husbands, they can use the money they have earned at home. This improved economic independence of women is crucial for their status and role in the family, their children's opportunities, as well as women's capability to live a life they appreciate. More effort should be hence focused on empowering women by providing them independent means for income generation. In the studied case, almost every second family had before a seasonal migrating worker, typically the husband. Project's support to local income generation and farming has resulted in almost half of the migrating workers return to the community for income generation.

1. Introduction

Hill and mountain farming offered people a basic livelihood and proved to be resilient over time. However, the system does not produce enough to pay for modern amenities. The complementary income from remittances and transfers from predominantly male migration are necessary for paying school fees and extras of modern life.

The livelihoods of the people in Sudurpaschim and Karnali provinces traditionally depends on diversified rain-fed subsistence family farming. The conditions of production are harsh with small plots on steep slopes with deep valleys and limited access. Many communities are hours walking distance from the nearest road and large parts of the area can be inaccessible during the rainy season. Higher in the mountains the seasonal snow is a serious constraint for work and production during several months of the year. Only few larger farms in the more productive areas are able to produce excess for the market and generate a certain level of wealth.

Nepal has made significant progress towards reducing its overall poverty rate. However, many people, especially those living in the hill and mountain regions, continue to struggle with food insecurity and poor nutrition. Agricultural development in these areas is faced by big challenges under increasingly extreme and erratic weather events. Poverty remains deep-rooted in these remote areas where few off-farm income opportunities exist.

Agriculture employs 78 percent of the economically active population in Nepal, with 66 percent of the population directly involved in farming, and contributes 34 percent to the Gross Domestic Product. Poor nutritional and sanitation practices undermine health status and productivity, while limited public investment in infrastructure, drinking water supply, and public services constrain sustainable development.

Migration is a fundamental element in the livelihood and food security strategy of the population. Male members of the family commonly migrate to India or beyond to earn money. This means that the women and children stay behind. The money is necessary to pay for items such as: electricity, schooling of the children, food stuffs, housing and clothes. Migration is still increasing from year to year (7.3% in 2017) and foreign workers sent more than 5.9 billion Euros back home in 2017.

RVWRMP has been supporting the farmer groups in its project areas to develop income generating activities to enhance their incomes from agriculture commodities - especially focusing on seasonal and off-season vegetable production for the market. The home garden is the basic component of the livelihoods result area and it applies everywhere where there is construction of water schemes. Nutrition promotion and food security is supported by optimal use of waste, grey and excess water. Beyond the basic level home gardens, the project has been supporting farmers for income generation by promoting commercial vegetable farming. Under commercial vegetable farming, the project has been supporting different technologies such as poly-houses for off-season vegetable farming, as well as tunnelling during winter. The project has also supported other options for fresh vegetable production such as seasonal open farming connected to the nearby poly-house area, so that participants can take care of their farmland and boost the income for rural farm communities. Furthermore, the project has supported communities on agribusinesses, micro-enterprises, Multiple Use of Water (MUS)/Irrigation business planning supports, value chain promotion interventions for limited commodities (only five commodities), and other service-based enterprises. Livelihoods Implementation Plans of Rural Municipalities (LIP) have been also supported by the project in 27 core Rural Municipalities, defining the most potential crops and pocket areas for their cultivation.

The Rural Village Water Resources Management Project (RVWRMP) has been active and supporting farmer groups in commercial vegetable farming focusing on seasonal as well as off-seasonal crops. The project has supported poly-houses for off-season vegetable cultivation with the aim to contribute to income generation. There are 18,928 (Poly-house technology: 2,770; Group & individual IG: 6,972; Leader Farmers: 4,492 and Micro-enterprise/agribusinesses: 4,694) farm families supported by different income generating activities (IGAs) such as commercial vegetables farming, poly-house technology support, mushroom farming, MUS/Irrigation business plans support, agribusinesses and microenterprises development and promotion, service-oriented interventions by the project and involved in vegetable farming as commercial ones targeting to enhance their incomes (Source: RVMIS Livelihoods Data Section). It is observed that many changes in human lives have occurred, including nutrition promotion, income generation, food security, migration, health and other social changes.

The research aims to analyse, reporting, document and disseminate of the project learning and impacts over the years. This study mainly focuses on poly-house technologies and seasonal and off-season vegetable farming linked to poly-house production technology adopters/owners. The study is based on three specific objectives:

1) assess the impact of local residents' IG in poly-houses and commercial farming on families' living standards;

2) identify the impact of project income generation intervention on work-based seasonal migration; and

3) assess the impact of project income generation intervention on women's status and independence in the family.

2. Methods

This study was carried out in Aalital Rural Municipality of Dadeldhura district of Nepal. Research design, data collection and sampling to assess the impact of income generation (IG) on farmers' well-being, seasonal mitigation, women's empowerment, we used a mixed research design that combined qualitative and quantitative methods of data collection and analysis.

The survey was performed by a team of livelihoods staff of the project to ensure capture of responses of both men and women respondents appropriately. In the survey, we explored the farmers' understanding of how they had experienced income generation for their livelihoods and household level investments and the benefits of project interventions aimed at the sector of expenditure after earning from commercial vegetable farming over time.

Qualitative data were collected using focus group discussions (FGDs). The FGDs were crucial to identify the domains to be included in the survey questionnaire as part of the quantitative data collection. Seven IG groups were selected in Aalital for data collection. From five IG group, five households with both male and female respondents were randomly selected and interviewed. In the women's groups (two groups) all (seven) respondents were female. Interviewing both male (12 respondents) and female (20 respondents) respondents of the same IG group helped us to capture perspectives of both genders and to map out the gender gap about issues like crop production with yields, income, migration, food consumption, technology adoption and other related variables. We observed the impact of the IG interventions for over 1-3 years. Before 2019, the farmers carried out their usual agricultural practices, and from then onwards, training in building knowledge about IG techniques was initiated in the RM. Hence, the year 2019 was taken as the base year from which data were collected based on recall, and 2022 was taken as the current year. The field observations and the RVWRMP Livelihoods MIS date were cross-checked to verify the income figures of subsequent fiscal years.

We also collected data on the impact of income generation on household food security, seasonal migration trends, changes in health condition and nutrition, changes in the education of children, changes in the decision power of women, changes in women's menstrual hygiene and taboos, changes in sanitation and hygiene, changes in property and social status among IG group farmers. The survey was conducted in 32 households where both men and women from the family were interviewed, making the total sample size 32. However, spill overs because of improper record-keeping by farmers and insufficient knowledge of some informants remained a constraint to the analysis.

For this study, data were analysed in order to answer the research and study questionnaires developed (Annex-1). Data linked to the research questionnaires were compiled and analysed from the interviewed sheets. Interpretation of collected data was done using thematic analysis, which is a process of segmentation, categorization, and the re-linking of aspects of the data prior to final interpretation and discourse analysis.

3. Findings

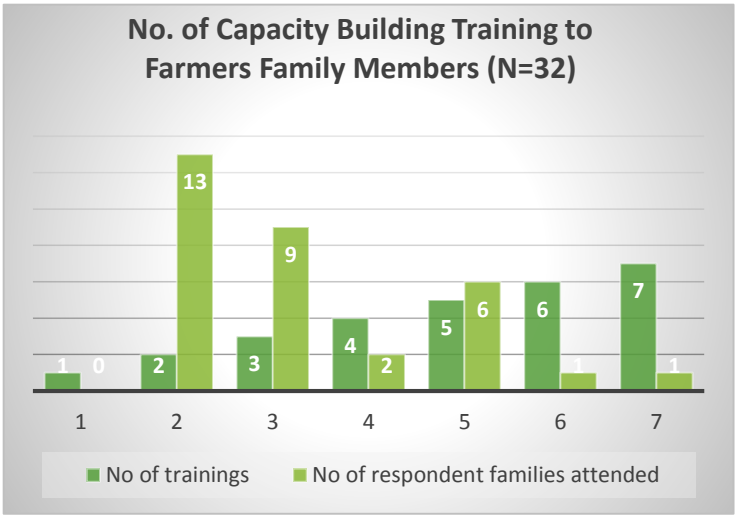
Impact on farming technologies and local farmers' capabilities

Before project intervention, the respondents did not have poly-houses and were not involved in commercial vegetable farming. They had not received any trainings regarding commercial production, income generation, or poly-houses before RVWRMP interventions.

After the intervention, all the respondent households have both poly-houses and non-poly-house activities (IG group farming) - i.e. seasonal open farming technologies were adopted for commercialization. Some of them adopted these technologies three years ago, some two years ago and a few had just had one harvest and entered into the second season. During FGDs, it is found that some of the group members could not adopt poly-house technologies because of constraints of land, workforce contribution and investment, though they were all interested.

The availability of seeds, other production materials and tools at production sites are very crucial to boost the production and maintaining the sustainability of the possession in agriculture. During the survey, it is found that all 32 respondents reported that they all have been getting such supports from local government and RVWRMP. They all replied that they are now able to buy such materials by selling the produced vegetables. The agro-vets are nearby and they will buy such production materials, if nobody is providing such production materials to them.

The trainings are crucial to capacitate the farmers for income generation, marketing and other production technologies. Rural communities lack such trainings and could not be involved in income generation activities without them. RVWRMP has been providing such trainings to the producers to capacitate them for the income generation with production materials and seeds support.



The study found that the individuals from the income generation-associated families have received two to seven different trainings as part of their capacity building to increase their income. The trainings provided by the project are home garden management training, income generation training (seasonal and off-seasonal vegetable production), model farmers training, post-harvest technology training, leader farmer training, poly-houses construction and poly-house production technologies, agri-businesses training, multi-purpose nursery training, fish farming training, cooperative management training, value chain training and ginger production training in different IG groups.

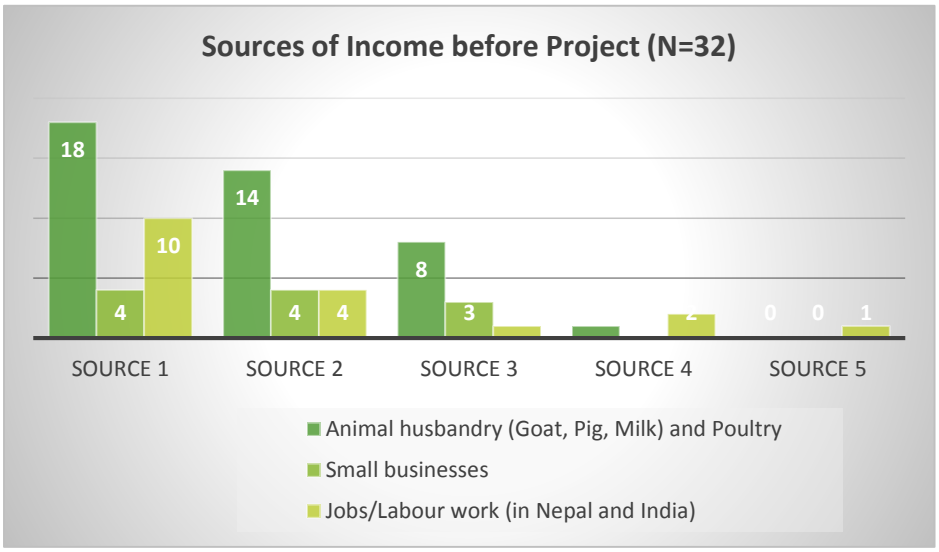
RVWRMP has been providing such trainings together with production materials and seeds support.

Impact on family income and its sources

The respondents had different sources of income before the project's intervention on vegetable production support. 18 out of 32 respondents had been earning income from animal husbandry as the primary source of income. Out of 18, the majority of respondents (14) have been rearing goats and only four respondents reported that they used to sell local chickens, but not regularly. It is also found that four respondents have

been doing small businesses at community level and 10 have different jobs including government jobs, work in India and other labour/wages as their main income sources before. The income was found minimum NPR 10,000 (from goats) to maximum NPR 725,000 (from government jobs) per annum per family.

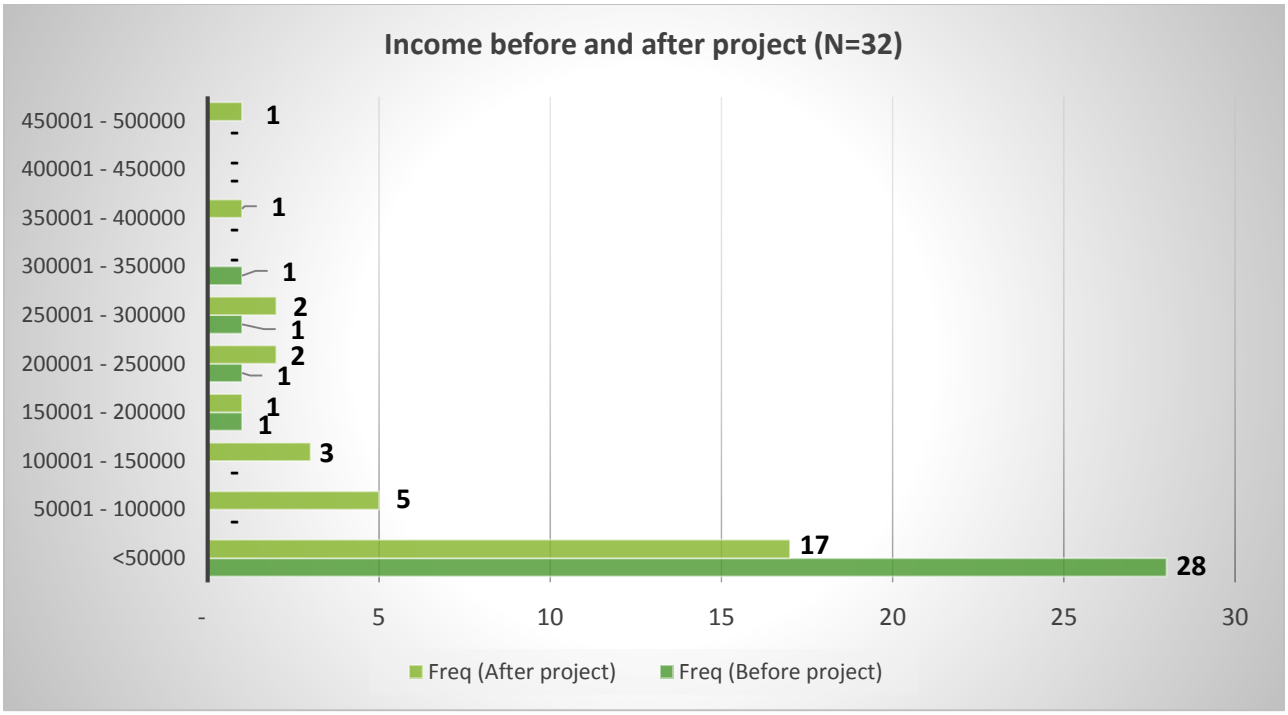
Similarly, 22 respondents out of 32 have a second source of income. 14 out of 22 reported that they have been engaged in animal husbandry and poultry, four in small businesses and four have different small jobs as their secondary sources of income. There were only 12 respondents reporting a third source of income, including animal husbandry (eight respondents), small businesses (three) and jobs (one). Only four respondents indicated that they had fourth and fifth sources of income i.e., fish farming and jobs in India. It is found that the cumulative income from all sources resulted in a minimum income of NPR 18,500 to a maximum of NRP 945,500 per annum per family, depending upon the small businesses to government jobs.



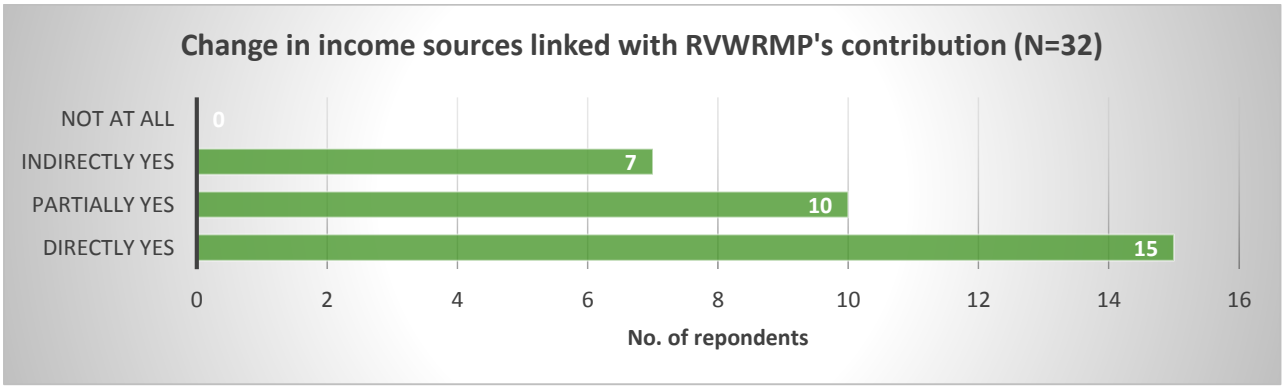
As per the survey and focus group discussions, no respondents reported that their vegetables were a significant source of income before the project support.

The study has found that income generating activities have changed and there has been an increase in the annual income of the farmers. Before project 20 families out of 32 earned money by selling vegetables, though only a few farmers were using commercial vegetable production practices (only four farmers have been earning more than NPR 25,000). Their incomes from vegetable sales ranged from NPR 300 to NPR 340,000 annually but after the project all 32 farmers have now been earning money by selling vegetables ranges from NPR 18,000 to NPR 460,000 annually. The latter equals to local food for around three persons for the whole year, having a significant impact on living.

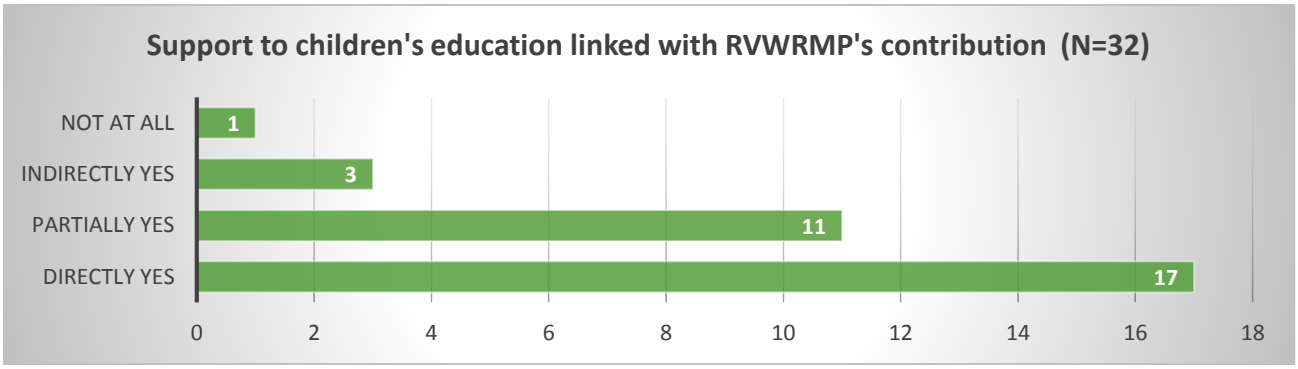
As per the RVWRMP Livelihood MIS for all supported IG groups, the income ranges from NPR 500 to NPR 152,000 (in case of group or individual IG), NPR 1,000 to NPR 305,000 (In case of poly-houses IG) per annum per farmer's family. If combined both poly-houses and open farming incomes, it reaches up-to NPR 450,000 annually.



The respondents reported that the increase in income is due to the project's contribution. The following figure shows the change linked with RVWRMP's contribution.



All the households report that they are able to pay fees, buy clothes, buy books and stationery for their children and have been sending them to good schools/boarding schools and colleges. Out of 32 respondents, 31 say this change is due to the income from vegetable farming that has been supported by the project, either directly or indirectly or partially. Earlier, with limited incomes, many families reported that they were not able to send their children to good colleges.



Family investments from gained income

Before the project, some respondents borrowed money from their neighbours. Now they are able to invest their income to improve their quality of life. The study found that 19% of household income was invested on their children's education, 18% on housing and land, 11% on food, 11% on clothing, 7% on health care, 2% on businesses and remaining 31% on saving to the Cooperatives and Banks and other minor activities.

Table 1: Income investment sectors

S.N.	Sectors	Investment (NPR)	Per cent
1	School/Education	603,000	19%
2	Health care	233,300	7%
3	Clothing	351,700	11%
4	Foods	333,500	11%
5	Housing	560,250	18%
6	Wedding	-	0%
7	Abroad	-	0%
8	Business	69,000	2%
9	Others/Savings	966,600	31%
	Total	**3,117,350**	

The study found that there is not any significant investment for weddings, nor for costs associated with getting jobs abroad, because these events happen very rarely.

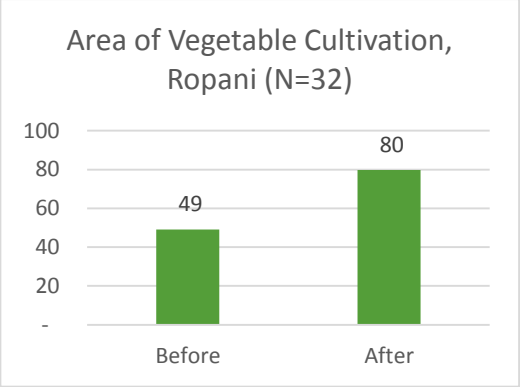
Impact on cultivated land area

It is found that before the total cultivated land area was 49 Ropani (1 ropani = 0.05 ha) including all respondents' land altogether, whereas after project interventions it is a total of 80 Ropani of land area available for commercial vegetable farming for both poly-houses and open farming technologies. Of that area, 73 Ropani is utilized for open farming and 7 Ropani for poly-houses. This equals to an increase of 31 Ropani, or 63%. It is found that the area range for cultivating vegetables for commercialization is from 0.29 Ropani to 10.12 Ropani per family. The number of poly-houses by respondents HH is found from one to four.

Fertile land is one of the most important aspects responsible to produce more income. The area under cultivation using modern technologies determines the volume of production and income. The observed 63% increase is a very significant improvement.

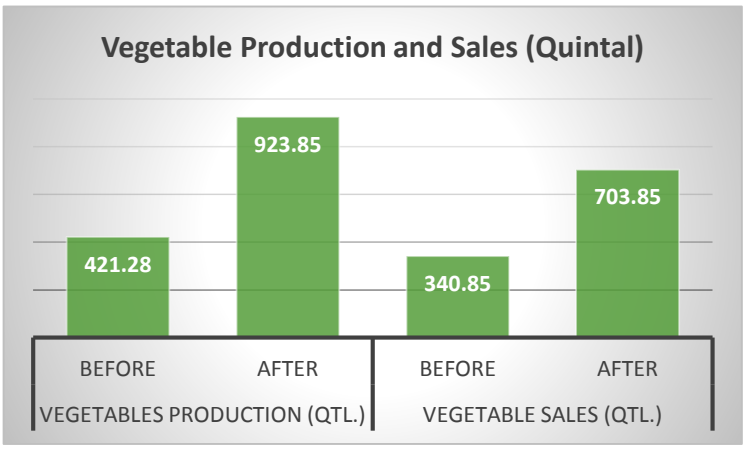
Impact on agricultural production and sales

Before the project's support, the study found that 42.1 tons of fresh vegetables was produced, of which 34.0 tons was sold to market. After the project support, it had increased to 92.4 tons fresh production with 70.4 tons sold to the market. On a percentage basis, the production of fresh vegetables increased by 119% and the sales to local markets by 107%. Before project, only 20 farmers reported having been involved in produce sales, amounting NPR 1.14 million, and after the project all 32 farmers have been producing seasonal and off-season vegetables earning NPR 2.75 million.



The respondents received different technical trainings, water supply, seeds, production materials and poly-houses. Most are linked to market centres and have been selling their produce easily, with the assistance of the project.

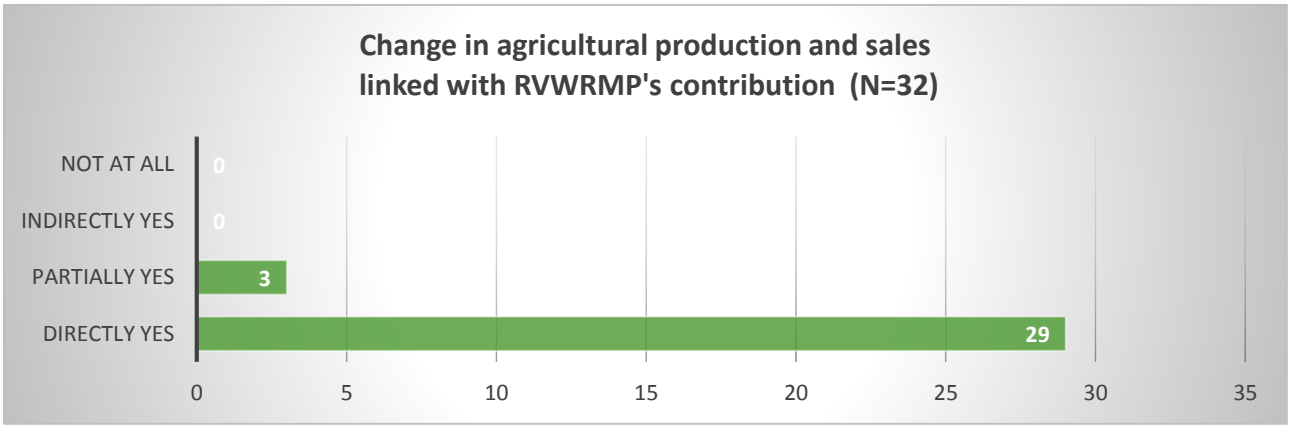
19 out of 32 farm families reported that before the project they used to buy more vegetables for their consumption, depending on the season and availability in the nearby market centres. After the project, only a few (nine) buy vegetables that they are not growing or growing less of in their own field, depending upon the production season. For instance, onion, garlic, potato and chilli are sometimes purchased still from the market because all those items need to be used almost daily and could not be grown in all seasons. Other than those, they don't buy vegetables as they can grow their own on a seasonal basis and consume vegetables in season.



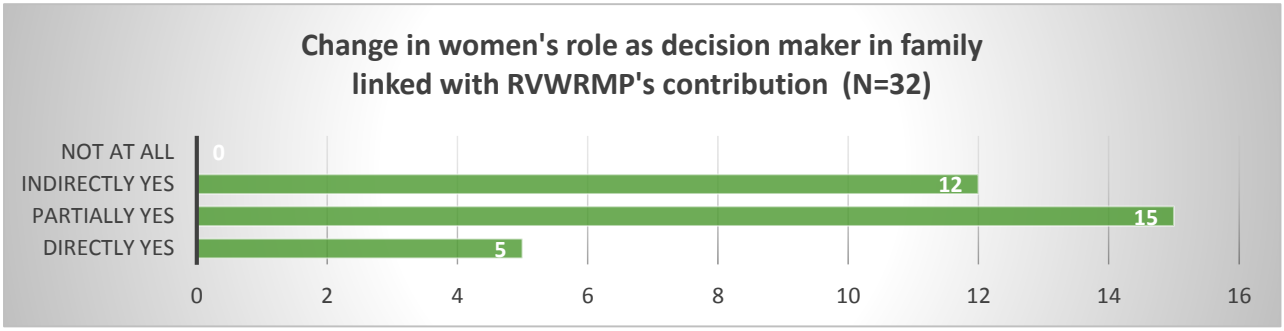
Because of massive vegetable production, the farmers are well known to everyone in the community. They are teaching other members in the group, and they have a good social reputation. The community people respect him/her for sharing their learning on technology and skills.

All respondents reported that their livelihoods have directly and indirectly changed due to the project interventions - for example, due to their commercial vegetable production they can eat more vegetables and also sell to the market. It increases their household income and well-being day by day.

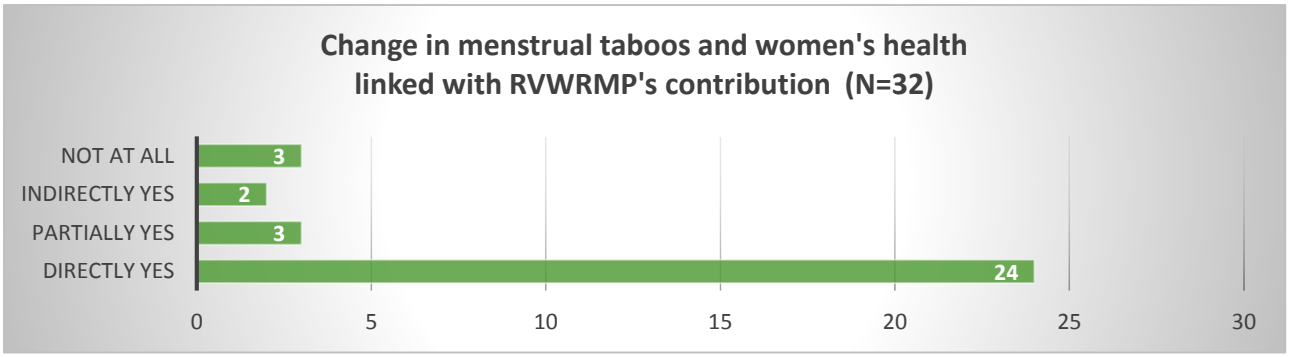
Impact on women's status and health



Most of the women of Sudurpaschim province are engaged in household work as well as agricultural work in the field, while the men migrate on a seasonal basis to the Terai or India for work. It was found that there is good coordination and communication between the migrated men and the women staying at home. Mostly the women handle the money for daily household expenditures. Women report that they have been exercising decision-making power along with the husband. Earlier they had to wait for money sent by their husbands working elsewhere. Now, due to the intervention, they have some income of their own to invest according to their wishes. The project delivered the capacity building trainings to the women in gender equality and social inclusion, home garden management and income generation, in order to capacitate the women for decision making and managing their income generating activities.

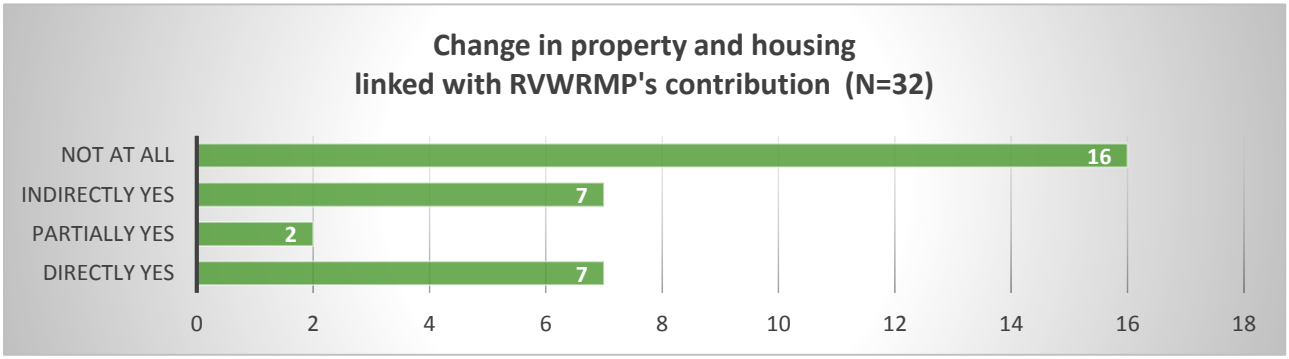


Menstruation taboos are very significant issues in Sudurpaschim Province. They vary according to the districts in the region. But gradually they are changing. RM/RVWRMP has conducted activities for dignified menstrual management in order to break the social taboos for the betterment of women. The respondents in Alital reported that there is no discrimination for girls or women during menstruation, and they can use their household toilet and tap, and wash regularly. Menstruating women and girls typically sleep in a separate room within the house now, and they are allowed to eat healthy food and milk, and rest as needed. 29 out of 32 respondents reported that these changes are due to the project's intervention.



Impact on property and housing

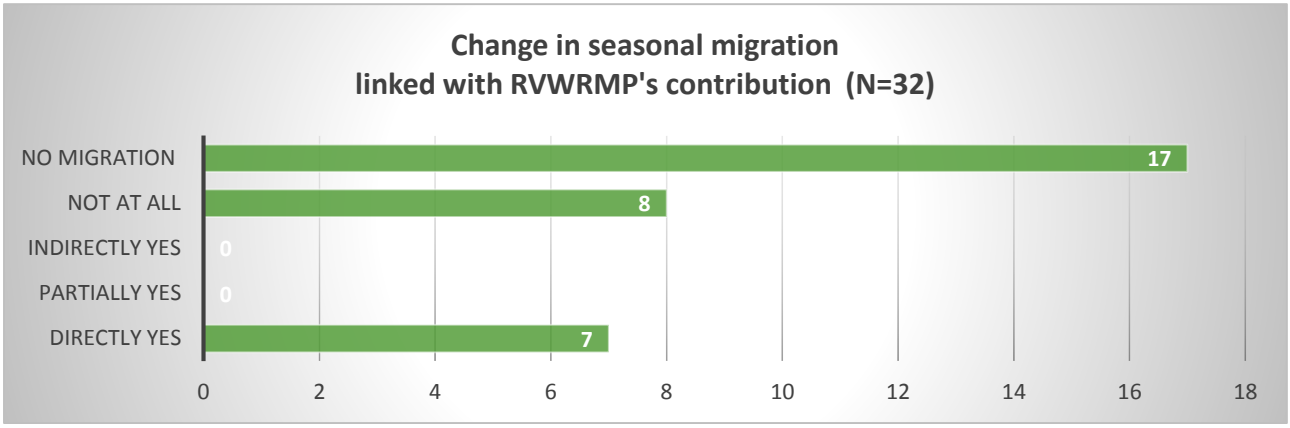
After getting involved with the project, farmers are able to establish small businesses, and purchase tools such as agri-tools and mini-tillers, purchase land and undertake house repair works from their income. 16 out of 32 respondents reported that these properties were directly linked with the project interventions and others have mixed response i.e., they are partly paid from other businesses and jobs



Impact on seasonal migration

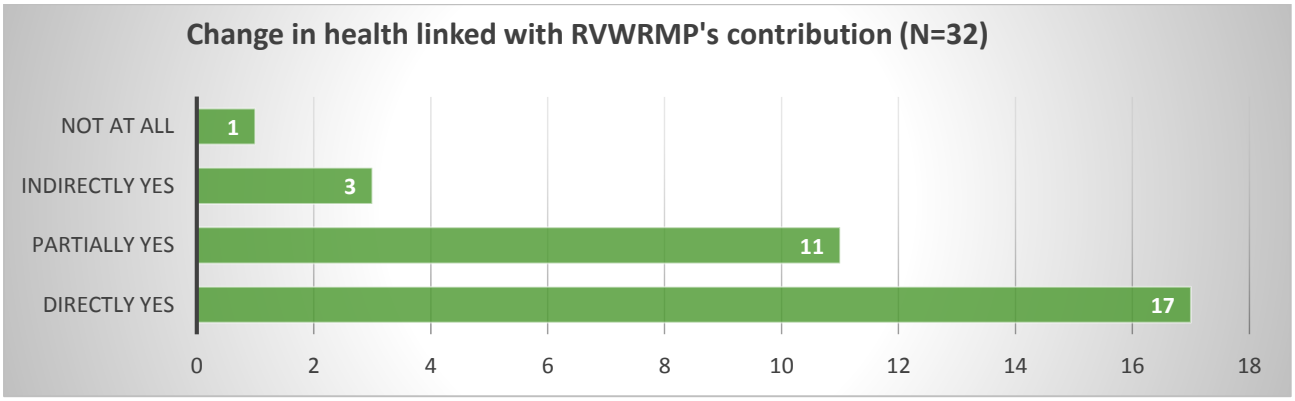
There is a lot of seasonal migration for work in India or the Terai areas of Nepal due to the lack of local earning possibilities locally. In the studied case, 15 (47%) of the families had a seasonal migrating worker in the family, typically the husband. After the project's support to income generating activities, the farmers are now engaged in commercial vegetable production and scaling up their areas, resulting in seven previous migrants (47% of the migrating families) now residing within their community, taking care of their house, farm, and children. This has a positive social impact for the family.

After the project's support to income generating activities in the community and getting a good price for their produce, the farmers are now engaged in the commercial vegetable production and scaling up of their areas under production. The returnee migrants saw the opportunity in vegetable farming and committed that they will not go to India again for seasonal work.



Impact on health and nutrition

Intake of fresh seasonal vegetables is increasing after the project's support, adding to the traditional rice and lentils. Almost all households use vegetables with their meals and the frequency of meals is now increased. The development is reportedly largely due to project trainings and the water supply system that supports cultivation. 31 out of 32 respondents, reported the project's contribution is responsible to change the health condition of the people, either directly or indirectly. The major changes observed and reported are increase in consumption of fresh vegetables, improve in the balance diet intake, increase in nutritious foods consumption and reduced the risk of diseases.

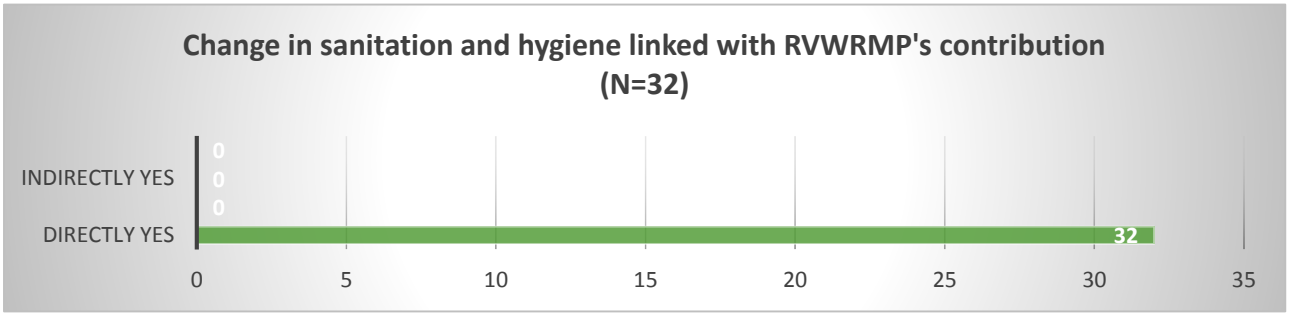


Impact on sanitation and hygiene

Respondents reported that previously the communities had poorly managed sanitation and hygiene practices at individual and household level, and in the surroundings. RVWRMP has conducted different sanitation and hygiene activities in the communities and provided support to construct water supply schemes, improved cooking stoves, declaration of total sanitized communities, etc. All these have led to a considerable improvement in local sanitation and hygiene.

Now, all 32 respondents reported that there is safe drinking water available, sufficient use of water for washing and cleaning, regular use of sanitizer or hand washing after working outside/at critical stages, use private toilets and taps, use of grey-, waste- and surplus water for home gardens, and other income generating activities. These changes have contributed to maintain the good sanitation and hygiene status of

the community. They also reported that there are fewer cases observed of water-borne diseases than before. All 32 respondents claimed these changes are due to RVWRMP's contribution.



Impact on affiliation to cooperative

It is found that all (32) respondents' family members are affiliated with cooperatives and associated with the IG groups. Most of the respondent's family members are affiliated with Chetana Small Farmers Agriculture Cooperative Ltd. Aalital and a few respondents' family members are affiliated with Hariyali Cooperative Ltd. Aalital.

It is very important for the farmers group or individuals to affiliate with a cooperative - receiving financial services, as well as support in the marketing of their produce locally and better income. It is also important to work in an organised group to bargain with the traders for good prices. When somebody affiliates with financial institutions or cooperatives, s/he can easily get a loan for the investment, which is crucial for commercial vegetable farming. In this way farmers can increase the income of their family by upscaling their agri-businesses. In conclusion, RVWRMP-led strengthening of cooperatives has provided all the farmers an opportunity to be involved with cooperative business.

Similarly, it is reported that the income from vegetables is important for a sustainable operation and maintenance fund (monthly water tariff payment). Farmers are now able to allocate funds from their income to pay the water tariff and ensure the water schemes' sustainability.

Personal and project contribution patterns for adopting income generating technologies

The farmer families have been investing cash as well as in-kind for the poly-house production technologies as well open farming materials, and the RM and RVWRMP have been investing cash as contribution for poly-houses production technologies as well as open farming materials in-terms of seeds, production materials, poly-house construction materials, plant protection measures, capacity building trainings to the farmers, marketing training and so on.

Respondents reported that NPR. 40,000 to NPR. 160,000 has been invested **by individual farmers** for poly-house technologies and open farming, depending on the area and the number of poly-houses constructed. Only one respondent reported leasing farmland for production in addition to his own land. The other 31 respondents reported that they have been using their own land for vegetable farming.

NPR. 50,000 to NPR. 170,000 per household has been invested by **RM/RVWRMP** for seeds, trainings, plant protection measures, small tools/materials to promote poly-house technologies and open farming. The most important technical support provided by the project found poly-houses construction training including laying-out, nursery raising training, bio-pesticides, urine collection and its application to replace the chemical fertilizers, post-harvest technology training, marketing training and business plan preparation training to commercial producer groups.

4. Conclusions

The impacts of the income generating activities can be seen by comparing the situation before and after the project intervention. For instance, before the project intervention the respondents did not have any poly-houses and practically no commercial vegetable farming. They had not received any training regarding income generation or poly-houses. After the intervention, several different livelihoods trainings have been provided to the producers to capacitate them for income generation, along with provision of materials and seeds. According to this study, the trainings and material support has changed the farming habits, improved local diets, and led to significant increases of annual income locally.

Two thirds of the families studied earned additional income by selling vegetables, ranging from several dozens of thousands to several hundreds of thousands of rupees a year. The latter equals local food for a small family for the whole year, having a significant impact on living. The cultivated land area for vegetables increased by two thirds, of which one tenth was under poly-house development. Both production of fresh vegetables and sales to local markets more than doubled, and the number of farmers selling vegetables increased by more than 50%. This has naturally enabled more savings and investments, better standard of living for families, and increased the status and self-esteem of the household within their community. The additional income was invested in good purposes: Children's education, housing and land, better food, clothing, and health care. As much as one third was saved in cooperatives or banks.

The study found that women handle money for daily household expenditures while often their husbands are working elsewhere. Instead of waiting for remittances from their husbands, they can use the money they have earned at home. This improved economic independence of women is crucial for their status and role in the family, their children’s opportunities, as well as women’s capability to live a life they appreciate. More efforts in the future should be focused on empowering women by providing them independent means for income generation.

In the studied case, almost every second family had a seasonal migrating worker, typically the husband. The Project’s support to local income generation and farming has resulted in almost half of the migrating workers returning to the community and staying to work in income generation locally. The result in this case may be overly positive as Aalital is known for its potential for vegetable production and the markets are relatively close, which makes farming a better business than on average in the mid hills in the area. However, the results are encouraging.

Annex 1: Study questionnaires

A. HOUSEHOLD LEVEL QUESTIONNAIRES

1. District:			**Name of RM:**		
2. Name of Respondent (Respondent should be the member of IG group):			***Family members***		
			Family size:		
			Number of Female:		
			Number of Male:		
3. Sex:			**No. of School going children:**		
4. IG options, Technology (Tick as appropriate)		**IG group farming** (open farming)	**Poly-houses**		**Both**
5. Are you or your family members are member of a cooperative?			**Yes**		**No**

6. **Are you still getting seeds and materials from the agencies? If not, then how do you manage them?**	

7. What was your personal contribution for adopting IG technologies?		**8. Land having commercial vegetable farming?**	
Cash		Open field (Ropani)	
Kind / labor equiv. to cash		Tunnel (Ropani)	
If leased, You paid for that		Poly-houses (Converted to Ropani)	
Your total contribution		Total Area (Ropani)	

9. What was project invested for that? How much?		**10. Technical support by the project?**	
Cash/grant			
Seeds and materials			

Training			
Others (……)			
Total			

11. Which CB activity provided by the project did your HH participated in?

12. Status before and after project		
Indicators	**Before project**	**After project**
Area for vegetable cultivation (Ropani)		
Vegetables production (Kg)		
Sales (Kg)		
Income from sale (Rs)		
Increase in income (%)		
Increase in volume (Kg)		

What vegetables did you buy for your family before the project?	
Are you buying more or less vegetables now?	
If you are buying more vegetables, why?	

13. In which sector/heading/activity you invested your income? (And at what percentage of your total income?)		
Sector (eg. School, health care, clothing, food, housing, wedding, abroad, business, etc.)	Amount (NPR)	Percent (%)

14. What was the sources of your family income before the project?	
Sources	Approx. annual income (NPR)
Annual Total (NPR)	

15. What are the major changes your family have experienced after you began to work with the project (Positive or Negative)?		
Indicators	Major Changes (What changes you felt or observed?)	Were these changes linked to the project activities?
Changes in income		
Changes in health		

15. What are the major changes your family have experienced after you began to work with the project (Positive or Negative)?		
Indicators	Major Changes (What changes you felt or observed?)	Were these changes linked to the project activities?
Changes in children's education		
Land and housing changes (increase in properties)		
Changes in food habits		
Changes in nutrition		
Changes in sanitation and hygiene		
Changes in menstruation taboos (Women's health)		
Changes in social status		
Decision making power of women		
Changes in season migration		
Other changes (……..)		
Other changes (……..)		

B. FOCUS GROUP DISCUSSION (FGD): Checklists/Questionnaires:

1. Name of the group and no. of HHs involved in?	
Name of the IG group	
Total no. of group members (HHs involved in group)	
No. of HHs involved in income generating activities	
No. of HHs have poly-houses	
If not all HHs have poly-houses, then what is the reason behind?	
Total poly-houses in the group	
Total HHs participating in this FGD	

2. What are the major changes experienced in your group after the project intervention (Positive or Negative)?

Indicators	Major Changes (What changes you felt or observed?)	Were these changes linked to the project activities?
Transformative changes in food habit and food security		
Changes in income/livelihood		
Changes in health and hygiene		
Changes in education		
Overall social changes		
Saving habits of the HHs (In group or in cooperatives: what ranges of Cash?)		
Changes in menstruation taboos (Women's health)		

2. What are the major changes experienced in your group after the project intervention (Positive or Negative)?		
Indicators	Major Changes (What changes you felt or observed?)	Were these changes linked to the project activities?
Decision making power of women		
Changes in the specific capacity of women (Knowledge, skill and confidence) only for women group discussion		
Have any group members been employed as Agro-vet, LRP, etc (Male/Female)		
Changes in seasonal migration		
Other changes		

3. Semi structured checklists (topics of discussion and interview)	
Checklist Topics	Answers
Has there been any change in seasonal migration among group members?	
Among all HHs of the group, how many people representing HHs left for income before and now?	Before: …….. Now: ……
How many families earned all their income from vegetable farming?	
In an average, how many family members engaged in cultivation around the year?	
To whom do you sell the produces? (Eg. Nearby market traders, Coop, Consumers, etc.)	

3. Semi structured checklists (topics of discussion and interview)	
Checklist Topics	Answers
From where you buy seeds and other inputs? (Eg. Nearby agro-vets, Coop, trader, etc)	
What is the availability of seedlings at your location?	
What is the availability of technical advice?	
Affiliation with cooperative for financial services and marketing (Name the cooperative your group affiliated with)	
How many group members affiliated with cooperative as shareholder?	
How many members of your group have taken loan from cooperative for income generation?	
Do you have business plan (production and marketing plans), is it prepared and implemented or not?	
What is the monitoring mechanism of your group that all members are doing IG activities properly?	
What are the major challenges?	
What are the further opportunities?	

C. OBSERVATION

1. Observation checklists (list of area that we want to observe)	
Major observation areas	Findings
The area of cultivation, no. of farmers involved in IG business	
The condition of standing crops	
Condition of poly-houses (Are they all properly used or partially or not in use?	Total observed poly-houses: Properly used #: Partially used #: Not in use #:
Last sales records of individual and group sum ups (Verify with IG register)	Record properly updated: Yes: No:
Others (If felt needed for additional information observed during observation)	
Photo taken	Yes: No:

D. **MIS VERIFICATION** (as per the answers and observations during field visit or survey or study findings).

(This will verify with MIS section of RVWRMP)

Annex 2: List of studied income generation groups

District	Name of RM	IG Group's Name	HHs involved in IG group	No. of HHs involved in IG activities	No. of HHs have poly-houses	No. of Respondents	
						F	M
Dadeldhura	Aalital	Lakhan IG group	28	28	28	3	2
Dadeldhura	Aalital	Saptarangi IG group	16	9	9	4	1
Dadeldhura	Aalital	Barpipal IG group	23	10	5	3	2
Dadeldhura	Aalital	Pratikshya IG group	20	16	16	3	2
Dadeldhura	Aalital	Jamreni Integrated IG group	22	22	22	4	0
Dadeldhura	Aalital	Gharelu Lamjile MUS BP commercial IG group	11	11	11	2	3
Dadeldhura	Aalital	Thali plastic house IG group	32	32	26	3	0