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RURAL VILLAGE WATER RESOURCES MANAGEMENT PROJECT

CASE STUDY BOOKLET

Schemes: Cooperatives, Drinking Water Supply, Livelihoods, Multiple Use Systems, Total Sanitation

RVWRMP

Dadeldhura
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INTRODUCTION

The Rural Village Water Resources Management Project (RVWRMP) is a multilateral project between the government of Nepal, the European Union, and the government of Finland. The project is based in Sudurpashchim and Karnali Provinces of Nepal and it has been active since 2006. The current Phase III started in 2016 and will end in 2022.

The objective of the project is to work with local people and Municipalities to achieve 100% access to safe drinking water and basic sanitation in the project area. The aim is to improve nutrition and livelihoods of locals by providing improvements such as Home Gardens (HG), income generation assistance and through developing local cooperatives.

Another focus area of the project is renewable energy with a focus on micro hydropower, Improved Cooking Stoves (ICS) and Improved Water Mills (IWM). Climate Change Adaptation and Disaster Risk Reduction are integrated into all project activities. Work is done in cooperation with Rural Municipality (RM) administration and stakeholders for sustainable WASH governance.

Gender Equality and Social Inclusion (GESI), local ownership, transparency and accountability are the core values of the project and have been integrated to all activities and implementation efforts. One key aim is to sensitise the population to stop the harmful tradition of menstruation huts (Chhaupadi).

The following Case Study stories are from the Rural Village Water Resources Management Project (RVWRMP), Nepal. They have been sorted by their category: cooperatives, Drinking Water Supply (DWS), Livelihoods, Multiple Use Systems (MUS) and Total Sanitation (TS). The stories were written by Gaupalika Water Resources Officers (GWROs) who are employed by the RMs with project funds. The stories have been edited and compiled together by the project staff to improve their readability.

COOPERATIVES

Darchula, Apihimal: Sea Buckthorn Initiative

Author: Manorath Joshi, GWRO, Apihimal RM, Darchula

Introduction: The Maldesh Saving and Credit Cooperative in Apihimal-4 Khandeshori was established in 2066/67 in Mahendranagar Kanchanpur. The cooperative is based in a rented house at Khandeshori Bazaar, the headquarters of Apihimal RM Darchula. This cooperative has been working in all of the wards of Apihimal RM. In the beginning, it had 103 shareholders, and this number has now grown to 450. It provides different savings options, such as: regular savings, optional savings, group savings, daily savings and periodic savings (*Dale Chukh)*.

Sea buckthorn has grown naturally for many years in the forests and river sides of wards 1, 3 and 4 in Apihimal, but it has been wasted due to not having value or buyers at the market. The community has used it traditionally as an addition to pulses and vegetables, but much of it has gone to waste and the plants have been used as firewood. Additionally, sea buckthorn production is often unhygienic, resulting in lowered quality and preservation times and thus, lesser value. The RVWRMP intervention in Apihimal in FY 2075/06 made a survey on sea buckthorn production.

It was realized that a cooperative might be the best option to handle the business of sea buckthorn conservation, production, purchasing and marketing. A cooperative could invest in the value chain, carrying out sorting, packing, labelling and marketing, and providing a reasonable price for farmers, collectors and processors. This process of adding value through production, processing and marketing by a reputable cooperative could ensure quantity, quality and sustainability and guarantee income for the farmers.

Major Activities: The project supported Maldesh Saving and Credit Cooperative Ltd. through training on the Step-By-Step implementation process (SBS), capacity building, management and account loan and office management. Additionally, a two-day training for the community was held to determine key positions between Community Organisations and User Committees as well as saving and credit. A three-day training session was also organized for farmers, shareholders, managers and the chairperson on sea buckthorn collection and processing in FY 2075/076. After the training, participants personally sold sea buckthorn in the local markets of Khandeshori and Makarigad. In FY 2076/077 four sea buckthorn groups formed from Apihimal 3 *Kshetti, Ghajir, Patha* and *Ranghadi* toles. The price for raw juice was agreed at NRs. 115 per litre. This will be purchased by the *Maldesh* cooperative through

farmers. Apihimal RM, RVWRMP and cooperative personnel discussed and decided that the cooperative would take responsibility for processing, labelling, packaging and marketing.

In order to fully run sea buckthorn production as a commercial business, the cooperative members and RVWRMP agreed that the cooperative shall also take care of transportation costs as well as raw juice purchasing and collection while RVWRMP will provide support for machinery and equipment purchasing, labelling, packaging, marketing and nursery raising. Technical support would be provided by the Apihimal RM Support Unit and the Social Welfare Society (SWS) Darchula. The four sea buckthorn groups collected the fruit, carried out the first processing of 200 litres of raw juice and sold it to the *Maldesh* cooperative. The cooperative started marketing by finalising the juice production, packaging, labelling and selling the final product. The groups are planning to jointly establish one sea buckthorn nursery in Apihimal-3 *Kshetti,* and next year tea will be produced from sea buckthorn leaves.

Summary: Sea buckthorn can be processed into *chukh* raw juice, processed juice, tea and other products (such as jams and skin care products). In order to utilize sea buckthorn for commercial use, four farmers' groups were formed and provided with three days of collection and processing training. The cooperative will be responsible for essential machinery and equipment support while RM/RVWRMP provides assistance on nursery raising, production, labelling, packaging and marketing to the Maldesh cooperative.

Major Impacts:

- The income of farmers living in remote areas will increase.
- Utilization of a "wasted" product for beneficial purposes.
- Local entrepreneurship will develop, and self-employment will increase.
- Sea buckthorn plants will be conserved, and the population of the plant will increase.
- A commercial business will be started through the cooperative.

Lessons Learnt: The previously unused sea buckthorn, that grows naturally in the area, can be used as a source of income for the community. Through responsible actions by the cooperative, sea buckthorn production can contribute to incomes through production, marketing and purchasing. A key observation was that a strong institution is needed in order to create a functioning value chain.

Darchula, Naugad: Learning Review and Sharing Workshop on Cooperative Development

Author: Harimal Singh Thagunna, GWRO, Naugad RM, Darchula

Introduction: A "Learning review and sharing workshop on Cooperative development" was organized at Naugad in the presence of the RM chairperson and ward chairpersons of Naugad Rural Municipality (RM). It was a golden opportunity to discuss linkages between the community, RM and other stakeholders among all the cooperatives. The attendees included four cooperative boards of directors, the account committee, the cooperative staff and the ward chairperson of Naugad RM. The cooperatives involved were Tarakot Saving & Credit cooperative Ltd. (Naugad-3), Suryoday Saving & Credit cooperative Ltd. (Naugad-1), Samaiji Saving & Credit Cooperative Ltd. (Naugad-6) and Hamro Krishi Cooperative Ltd. Naugad-4.

The RM and RVWRMP began the workshop with a full package of trainings, book-keeping and support on operational grants to cooperatives. The number of transactions carried out by the cooperatives has increased significantly since the project support began. The chairperson of Naugad RM Mr. Prem Singh Dhami committed to open a Cooperative and Poverty Reduction Section in the RM, which will support and regulate the cooperatives.

Major Activities: The Project activities have supported *Hamro Krishi* cooperative in Naugad-4 (ex-Sipti VDC) through institutional development, capacity building training, exposure visits and operational grants support since the first phase. In the third phase, the project has been supporting three cooperatives on institutionalisation, capacity building, operational grants, learning, monitoring and support and sharing exposure visits with cooperative members. The project has continued to support bookkeeping, auditing and monitoring.

Long-term Impacts: One of the key findings of the workshop was that cooperatives are well liked in the communities due to their possibility for savings and poverty alleviation. Cooperatives were found to be a good partner for RMs in the field of development activities.

Lessons Learnt: A clear vision coupled with clear implementation leads to success. Without a clear vision, activities become easily redundant.

DRINKING WATER SUPPLY (DWS)

Bajura, Swamikartik Khapar: Gauri Rokaya - Female Chairperson Inspires Community Women in Drinking Water Scheme

Author: Bandhu Bikram Shahi, GWRO, Swamikartik Khapar RM, Bajura

Introduction: *Gauri Rokaya* is a 43-year old permanent resident of Juku village, in Swamikartik Khapar RM, ward no.3, Bajura. She has five members in her family, including two daughters and a son. She is an example to the other women in the village as she is a social worker and the only literate woman, while others are still glued to housework and unable to participate in social works. *Gauri* has proved that women can successfully implement big schemes even when facing difficult societal norms. Thanks to her literacy, she knows a lot about RVWRMP work in the field of women's empowerment and leadership. She believes that if roles and responsibilities are given to women, they can change the society. The project believes that sustainable development and changes for the better are only possible through Gender Equality and Social Inclusion (GESI).

Before RVWRMP launched in *Juku* and *Jukot* villages, the community people used to drink unsafe water. Some families of *Juku* and *Jukot* settlements of Swamikartik Khapar VDC-4 were living in *Gobre* and *Khalna villages*.

Major Activities: When the project launched in the RM, *Gobre Khalna* Drinking Water Supply (DWS) scheme was prioritized in the Water User Master Plan (WUMP) for 2018/19 (2075/076BS) for Khalna and Gobre villages (serving 96 households (population of 426). The mass meeting selected *Gauri Rokaya* as a chairperson of the scheme and she was the first woman chairperson of a User Committee for RVWRMP Bajura schemes. But it was not easy for her to work in the patriarchal society. There were many challenges for her, including source disputes, community mobilization for in-kind work, collecting cash from users and difficulties in maintaining records and bookkeeping.

In the beginning of her tenure, there was an ongoing source dispute that had reached the District Administration Office and several minor disputes continued throughout the construction of the DWS. However, Gauri Rokaya never became irritated and defeated by the problems, and she continued to face and resolve these issues. She was supported by the RM, RVWRMP and the users, which gave her the confidence to complete the project. To complete this scheme as a woman in a patriarchal society, was like chewing an iron sieve. She completed the DWS scheme successfully, with the construction of one Intake, two Reservoir Tanks (RVT), one Distribution Chamber and seven public taps.

Long-term Impacts: *Gauri Rokaya* became an inspirational chairperson of the scheme area. The members of the community praise her capacity and thank her for safe drinking water, livelihood activities, total sanitation activities and the progress of the scheme toward sustainability. She led the users to accomplish the scheme as planned and in doing so, proved that a woman can lead and complete big schemes.

Lesson Learnt: With honesty and hard work, and a strong and positive attitude towards development, anything can be accomplished, despite the challenges. Women can be helped to gain experience and become strong leaders with technical and social support from project staff and support organisations.

Dadeldhura, Aalital: Progressive Rural Villages through Water Supply Scheme

Author: Hem Raj Paneru, GWRO, Aalital RM Dadeldhura

Introduction: Aalital RM (formerly Aalital VDC) was selected by the DMC of Dadeldhura to prepare the VDC level Water Use Master Plan (WUMP). The preparations were done by the VDC with technical and financial support from RVWRMP. During the WUMP preparation, various water resource related activities were identified as prioritized activities or schemes. Aalital VDC was unable to implement the WUMP prioritized schemes/activities before RVWRMP started its implementation phase because there were no other development agencies working in WASH sectors who could join hands to implement the activities as prioritized in WUMP.

Before the construction of the DWS, they had only one tap stand for 15-20 households and it was also a 15-minute-walk away from the settlement. Water discharge was also very low, so it took a minimum of 20 minutes to fill a 20-litre water pot. During those days, many households were depending on the same tap and this was causing frequent quarrels with neighbours. During the dry season, the taps were dry, or had very little water and the community members had to use unsafe, contaminated water for drinking from a river it took 1.5 hours to walk to.

Major Activities: RVWRMP launched in 2019 in *Bhawer,* Aalital RM. Up until today, the project has implemented one water supply scheme, that benefits 104 households with a population of 715 persons. The Home Garden (HG) activities have been started in the community. The project supported the formation of home garden groups and commercial (seasonal and off-season) vegetable training was organized.

Mass meetings, awareness campaigns, workshops and seminars were organised, and the community mobilized for total sanitation and behaviour change activities.

Long-term Impacts: The implemented water supply scheme was successfully completed with good quality and transparency in a sustainable manner. The community people are enjoying safe drinking water and livelihood activities and are sensitized towards total sanitation and behaviour change. Their quality of life at the community level has improved and provided the following opportunities:

A. Decreasing Workload for Women and Children: The schemes have been fruitful for the community people. Particularly women and girls are benefitting from the water taps being close to the house or yard, as women and children are traditionally the ones fetching water. Now their workload has been reduced and they can spend more time on other tasks, such as vegetable farming, cattle rearing, and taking care of children. The children can focus more on school, as they have fewer household chores. In addition, access to taps has also improved their personal hygiene, particularly that of women and girls during the menstrual period (as they have much better access to water for washing). These are signs of improved living standards.

B. Improving Food Security, Nutrition and Livelihoods: The project has provided training for women on HG management. The purpose is to improve household livelihood opportunities and decrease malnutrition especially among children under five and among pregnant and lactating women, through the generous consumption of vegetables and increased on-farm or off-farm employment opportunities at a local level. To date, a total of 96 people from 96 households have been trained in basic HG management and they have functional home gardens with seasonal and off-seasonal vegetables for their household consumption. Among these households some households have even scaled up their vegetable farming for semi-commercial purposes and are selling their products in the nearby markets.

C. Improving Sanitation and Hygiene Status in the Communities: Aalital was declared Open Defecation Free as the 8th VDC among the 20 VDCs of Dadeldhura in 2013 (2070 Bhadra 14). Before that, the proper use and cleanliness of the toilets and also maintaining personal hygiene was very challenging for Aalital ward no.5 *Bhawar* community, as the community was suffering from water scarcity. Now that they have sufficient water near their homes, all 104 households have clean toilets and the settlements are becoming cleaner and more hygienic. The following indicators have been achieved by 13th March 2019 (Fagun 2076 BS).

Indicators	Nos.
Total Households	104
Households having water sealed toilets with proper use/cleanness	104
Household coverage by DWS (till Falgun 076)	04
Toilets accessible to female even during menstruating period?	Yes
Households having hand washing place with soap	100
Households practicing Point of Use (Boiling/filtration or any other methods practicing at household level to purify drinking water.)	77
Households having good quality utensil draying racks	77
Households having waste garbage pits	104
Households managing Farmyard Manure	104
Households having Improved Cooking Stoves	63

D. Increasing social harmony through implementation of water supply schemes: There were many conflicts earlier among the community people due to various reasons. One of them was that too many people were dependent on the same tap. Now the quarrelling has reduced as there are more taps and water scarcity is no longer a problem. Ms. Bishana Gatti, treasurer of DWS said "*We have water taps near the yard, one for 2-4 households, with sufficient water. Now the disputes have diminished among neighbours."*

Lessons Learnt: The drinking water supply schemes supported by RVWRMP are agents of societal change in the rural settlements of Aalital ward no. 5 Bhawar community. With the WUMP, which RVWRMP applies in its work, a "bottom up" development process can be seen; the immediate result being transparent processes, quality constructions and proper planning. To make the water schemes sustainable for the community people, the capacities and skills for operation and maintenance have to be developed. The water schemes have positive impacts on the overall development of the community in terms of better hygiene, improved health, time saving, diversified nutrition, enhanced livelihoods opportunities and even better social cohesion in the communities. The impacts can be seen at the grassroots level, as women and children are the main beneficiaries of these developments.

Dadeldhura, Bageshor: Sutil Village - The Power of a Community Working Together

Author: Devraj Bhandari, GWRO, Bhageshwor RM, Dadeldhura

Introduction: Sutil Village is located in ward no-4 of Bhageshwor RM, at a distance of 18 km from Dadeldhura district headquarters. The village has 38 households with a population of 246 people, of which 127 are female and 119 are male. The village is still not linked to the road network. The village surroundings are feasible for food grain production and animal husbandry. Sutil village had poor drinking water supply

(DWS) and sanitation systems and people had no interest in animal husbandry. Villagers used to fetch water from unsafe and polluted waterspouts (*Naula*). The *Chhunne Patal* DWS scheme began in 1983 (2040BS) and it was completed in 1985 (2042 BS), supported by DWSSDO Dadeldhura. The community was happy for the improvement, however the water source was a stream, so it had problems with turbidity and pollution in the rainy season. This led to people returning to the existing *naula* to collect drinking water and the stream water from the DWS was used for animals and cleaning purposes. Several years later, people became aware of the importance of safe drinking water, sanitation and a need for behavioural change. The population had increased, and the inhabitants were anxious to access clean and safe drinking water. They found a new safe source *Bhameke* 4 km from the village.

Major Activities: RVWRMP started in Rupal (ex VDC) and a Water Use Master Plan (WUMP), mapping the sources and needs, was prepared in support of the project/VDC and with the participation of community members. Then the WUMP was reviewed after the administrative changes in Nepal. Bhageshwor RM and RVWRMP started the *Olsani* DWS scheme in FY 2018/19 (2075/076BS) for *Sutil* village. The community people were happy with the DWS, livelihood and total sanitation activities in the village. The DWS DED cost was 4 720 677 NRs. (GoN: 1 434 142 NRs., GoF/EU: 1 492 678 NRs. and RM: 566 481 NRs. and the community: 1 227 376 NRs).

Along with the DWS scheme, an intervention on livelihoods was started with the formulation of Home Garden (HG) groups. The farmers received HG management training and began to grow seasonal and off-seasonal vegetables in poly houses. The total sanitation activities began, and the villagers decided to declare their village a total sanitation demonstration village. Most of the village households began commercial vegetable farming. 38 households began to construct utensil driers (Chaang), wash plate forms, practiced farmyard management, built solid waste pits and Improved Cooking Stoves (ICS) and practiced cowshed management.

Long-term Impacts: The people of the community are very happy for the access to safe drinking water as well as livelihood and total sanitation activities. People have changed their behaviour towards health, hygiene and nutrition and they are working towards becoming a demo village for sanitation.

The joint monitoring team of the project and the municipality have monitored the scheme and the chairperson of Bhageshwor RM and the team leader of RVWRMP jointly inaugurated it on the 18th of February 2020 (2076/11/6 BS). "This is the first project that will change the lives of the community and initiate change in the village." said local leader Basanti Bista Saud. People are also using wastewater to grow

vegetables and spices, which support health and nutrition. The village has managed to move away from its past of having no access to safe drinking water and sanitation, and poor hygiene, health and nutrition.

Lesson Learnt: Awareness and ownership are basic requirements for sustainable development. Communities can overcome their problems if they work hard with honesty and patience.

Dailekh, Bhairabi: Unexpected Drinking Water Scheme Changes the Whole Community

Author: Chakra Bhandary, GWRO, Bhairabi RM, Dailekh

Introduction: *Man Kumari Shahi* is a 46-year-old woman living in Bhairabi RM-5 *Dokra* village in Dailekh district. Her morning routine used to be to wake up at 3 a.m. and then walk for half an hour to fetch water from a traditional waterspout. The spout was open and unsafe and provided very little water. If she was late, there would be no water for her. Often, the villagers of *Dokra* would go to the spout and find no water at all. Additionally, the villagers only had a three-month storage of food grain for survival for the year, due to infertile land and a difficult location.

Before construction of the drinking water supply (DWS) scheme, no-one used toilets and open defecation was practiced everywhere. Most of the households had quit their livestock business. Due to the lack of a water supply, only two or three households out of 120 were growing vegetables. Most of the village youths used to work abroad or in Kalapahad for employment. Thus, no youths could be seen in the village and developmental works were difficult to carry out. No-one believed that a DWS scheme would be started in Dokra village.

Major Activities: Bhairabi RM/RVWRMP prioritised *Kapurkhola* DWS as the first priority in the Water Use Master Plan (WUMP). The User Committee was formed, and construction work began, but there were many hindrances for construction, such as source disputes and theft of construction materials. Finally, the *Kapurkhola* DWS was completed with a cost of nearly eight million Nepali rupees. However, the community members didn't believe that they would have a 24-hour open flow water system. In the beginning, the water supply was insecure and there seemed to be some scarcity, which led to some users hoarding water in big pots. Soon the problem was resolved after all the pots were filled patiently and the water tap has been free to use since.

Long-term Impacts: The DWS scheme brought many changes to the community. Home Garden (HG) management groups were formed and farmers received training. Now that water is available, villagers have begun vegetable and livestock farming again, toilets are used regularly, and women's menial work has been reduced. The community members are now using wastewater for vegetable farming for individual and commercial purposes. The community has become a model village for scheme sustainability, sanitation and vegetable farming. "The DWS has changed the situation of the entire village and have become an an example for others. I never thought that we would see such changes in livelihoods, sanitation and commercialisation." said ward chairperson Hemlal Jaishi. The Bhairabi RM and the community are thankful to the project for this unexpected scheme and they are committed to it for the future.

Lessons Learnt: The whole community can change if they have a strong commitment and a positive attitude towards development works. The community realized that development is possible if they work together with honesty, hard work and a sense of ownership. The RM and community people are very positive and willing to work with the project as it has always been transparent, demonstrative and replicable. The RM and other projects and development agencies have provided many new lessons for the villagers.

Doti, Badikedar: Women Participation is Crucial for Sustainable Development

Author: Tilak Malla, GWRO, Baddikedar RM, Doti

Introduction: *Tulsa Devi Nepali* is a 29-year-old woman living in Baddikedar-5 *Lanakedareshor Dhamigaon* village of Doti district. She has a family of eight, including four sons, two daughters, her husband and herself. Her family has been struggling with food scarcity as well as financial and social challenges. Dhamigaon village has 35 households of *Thakuri, Kshetri* and *Dalits*, of which 21 households are Dalits. In the traditional caste system, *Dalits* are on the bottom tier. The project started different activities in the community to transform the lifestyles of local people for the better. It was difficult for *Tulsa* to provide daily necessities and basic education for her family. Her husband's work in India as a watchman was the basic source of income for the entire family.

Before the project the community had problems with drinking water and irrigation. Previously, the Lanakedareshor VDC had been declared ODF but there were still temporary toilets without doors, windows or locks and no-one was aware of hand washing with soap. The villagers were struggling with different waterborne and hygiene-related diseases (diarrhoea, cholera, typhoid, worms etc.) throughout the year. The small savings of the villagers were spent on medicine.

Major Activities: Baddikedar RM/RVWRMP launched *Chachara* Drinking Water Scheme (DWS) in Baddikedar RM ward 5 *Dhamigaon* in FY 2018/19 (2075/076BS). In addition to the DWS scheme, different activities, such as Hygiene and Sanitation Education (HSE), livelihoods, Total Sanitation and cooperative development were implemented in the village. Tulsa Devi was busy in social work near her village and she was selected as the UC member of *Chachara* DWS. She was also involved in HSE activities and a member of Dhamigaon Home Garden (HG) Group, *Bijaya* Multi-purpose Cooperative and the women's group. Furthermore, she used her knowledge to teach and motivate other community members. She worked on DWS related transportation of non-local materials, pipeline digging and filling works. She was thus able to earn and save some money from paid works for the DWS scheme that she used for vegetable production for her family to use and sell. She has improved her family health and nutrition thanks to vegetable production. Baddikedar RM/RVWRMP-III and the local facilitating organisation, the Kedar Rural Development Society completed the Chachara DWS scheme in FY2018/19 (2075/076BS) with basic HG, TS and cooperative development activities.

Long-term Impacts: The community people were able to access clean drinking water adjacent to their homes. They now have livelihood activities that improve their health, nutrition and income

generation. The community is no longer afraid of waterborne, sanitation and hygiene-related diseases thanks to the sanitation activities in the village. Each household has a washing platform, drying rack, solid waste pit, farmyard manure management, hand washing plate form and an improved cooking stove. The community is working towards sustainability of the water scheme by creating an O&M fund and saving with cooperatives. The community members have changed their behaviour and are inspired to build a healthy and civilized society.

Lesson Learnt: Women's participation is very important for sustainable development. Positive thinking and a great work ethic can bring success if opportunities are provided. Women can play a vital role not only in household works but also in sustainable development activities.

Doti, Bogtan Fudsil: Sustainability in Sadyan Dauda through DWS Scheme and a New Grinding Mill

Author: Sunil BK, GWRO, Bogtan Fudsil RM, Doti

Introduction: RM/RVWRMP began the *Sadyan Dauda* Drinking Water Supply (DWS) scheme in Bogtan Fudsil RM ward no.4 2073 which was completed in 2075. Before the scheme, the women of the village had several issues related to drinking water. They had to fetch water from a minimum of 15-20 minutes' walking distance, and they had walk for 2-3 hours to grind flour and oil at a mill. The villagers used to drink unsafe water from a waterspout and stream 20 minutes walking distance away.

Major Activities: The RM and RVWRMP gave financial and technical support for the *Sadyan Dauda* DWS scheme, with inputs from the local NGO and the User Committee (UC). The community now has access to safe drinking water, and they are using water in their home gardens to grow vegetables for home consumption and sale. The villagers have improved their personal hygiene, carried out activities to progress towards total sanitation, improvement of their livelihoods and nutrition status. They also collected Operation and Maintenance (O&M) funds by saving money (800 000 Rupees) obtained from working for the scheme construction. The mass meeting focused on discussing the remaining major issues in the community: the grinding of food grains and oil seed. As a result, the mass meeting and UC decided to establish a communal improved water mill for grinding flour and oil seed. The whole community benefitted greatly from this improvement.

Long-term Impacts: The community people now have access to safe drinking water as well as a new communal flour mill in their village. These improvements save 2-3 hours every day that can be used for other household works, such as vegetable farming, animal rearing and childcare. The children can now use their time to study. The mill has not only made flour grinding accessible, but also provided employment for a local person, and monthly savings of NRs. 1500.00 for the DWS and flour mill O&M fund.

Lesson Learnt: With positive thinking and communal unity, coupled with a clear vision to achieve basic needs, nothing is impossible. This is the example shown by *Sadyan Dauda* DWS scheme. The villagers collected 800000 rupees for the O&M fund and the same community was able to use this fund to meet the basic needs of the community by constructing an improved water mill and providing local employment. Every month, 1 500 rupees is being saved for O&M fund to keep the scheme sustainable.

Humla, Kharpunath: Raya Village Freed from Drinking Unsafe Stream Water through construction of a Drinking Water Scheme

Author: Ain Rokaya, GWRO, Kharpunath RM, Humla

Introduction: *Raya* Village is located in Kharpunath-3, 20.4 Km (12 *kosh)* and a 7-hour walk on foot from mountainous Humla district headquarters in Simikot. The village has a population of 132 (67 females and 65 males) residing in 25 households (11 Dalit, 14 Others caste households). The village has been struggling with starvation, disease and poor education, as with neighbouring villages. However, Raya village is fertile in comparison with other villages of the northern part of Humla district. Modern agriculture could provide strong support to the community people. There is still a strong religious belief in traditional healers and villagers hold conservative ideas. The village has diverse traditions and customs. Unity in plurality is a way of life for the people in the village even though they face poverty, and mutual

harmony is shared in sorrow and happiness. Helpfulness and genuine compassion are characteristics of the people. Both traditional arranged marriages and love marriages are common.

The community has had problems with access to safe drinking water. They are used to walking 20 minutes to access an unsafe stream. Due to water scarcity, there is insufficient water for livestock or environmental and personal hygiene purposes. Fetching the water leads to an excessive workload for the women and children and there is a constant health risk due to malnutrition and diseases such as diarrhoea, and cholera.

Major Activities: In the past, work plans for poverty reduction have been formulated but not implemented. The Rural Village Water Resources Management Project (RVWRMP) implemented in Humla district aims to support good health and poverty alleviation through access to safe drinking water and improving livelihoods. The project prepared a Water Use Master Plan (WUMP) in 2014 (2071 BS) for Raya VDC and the *Kuti Hilsa* DWS scheme was supported in FY 2018/19 (2075/076 BS). The total cost of the scheme was 4 471 657 NRs. which covered three intakes, two RVTs, eight PTs and 2783 meters of transmission pipelines.

There were difficulties in collecting local materials and transporting external materials to the *Kuti Hilsa* DWS and sanitation Scheme. However, thanks to the active participation of the entire community, technical support staff and technical support from project staff TSU coupled with the RM level monitoring team's feedbacks and suggestion by concerned agencies the scheme was successfully completed.

Long-term Impacts: Now the community people of *Raya* village are happy with adequate and accessible clean drinking water in their house yards. Even livestock have access to sufficient drinking water now. The community people have sufficient water for sanitation and hygiene and the workload of women has decreased, giving them time to care for their children and grow vegetables for both home use and income generating activities. People are also collecting non-timber forest products (NTF) in the time saved. The children who used to spend most of their time fetching water, now have sufficient time for studies. This DWS scheme has improved the health and hygiene condition of the community, improved nutrition and helped to generate income. The community members are committed to attending regular User Committee meetings, collecting regular water tariffs and mobilising a Village Maintenance Worker (VMW) in order to maintain the sustainability of the scheme.

Lesson Learnt: Geographical conditions are not a constraint for development, if the community people have sufficient willpower to change things and are supported effectively and transparently by projects such as RVWRMP. The project supported the DWS scheme, livelihood activities, total sanitation, environmental protection and the streamlining of the GESI strategy. Capacity building ensures the sustainable development of the project for future generations.

Humla, Namkha: Changing Lives in High Altitude Communities Through Drinking Water Schemes

Author: Danta Bahadur Shahi, GWRO, Namkha RM, Humla

Introduction: Namkha RM is the biggest municipality of Nepal located in the north-western part of Humla district, in Karnali province. It has an area of 2 419.64 square kilometres. This RM was formed by integrating the former *Hepka, Khagalgaon, Muchu and Limi* VDCs with six wards from the Humla district. This RM is situated with Simkot in the east, the border with China in the west and north, and Bajhang and Bajura in the south. According to the census of 2011 (2068BS) the RM had 844 households with a population of 3900. The only caste of this RM is *Lama* and as they are Buddhist by religion, every tole has a Buddhist monastery *(Gumba*). Lama people celebrate Lohsar as a major festival. Ward no. 6 of this RM has three villages, which are at an altitude of more than 4000 metres.

There is no mobile network but the V-sat (satellite phone) line functions in the RM. This community is very different to other villages in Nepal. In three toles, only 25% of the people understand the Nepali language and just 10 % can speak it. In these toles, religious social and traditional norms are present and the chairperson rules and makes regulations in the village. Surprisingly, many follow Chinese or traditional rules. The villagers grow barley once a year as well as local peas (*Kalaun*) and some vegetables that can be grown at these altitudes. Sea buckthorn trees can be found in sufficient amounts in the region. There is a 1100-year-old Buddha monastery (*Gumba*), probably the oldest such monastery in Nepal. Except for a peltric set established for lighting, there were no signs of construction or development by the GoN or NGOs/INGOs. This area is covered by snow for six months per year and the people travel to *Taklakot* in China for work, leaving the village relatively empty.

Major Activities Implemented: As RVWRMP launched in Namkha RM-6 *Limi* (ex-Limi VDC) the villagers heard that the project would develop water, sanitation, agriculture and cooperatives, but it was difficult for them to believe. They felt that project was only wanting to make money in the name of providing them with water and other infrastructure, as has been the case in the past with some projects. The community people said that to their surprise, they found the project employees to be different to what they expected, as they saw them working transparently and in the field. They heartily thanked the project staff for opening their eyes and completing the scheme.

The community people used to drink unsafe stream water. With four to six feet of snow coverage in the winter season, they had to melt snow for water for two to three months per year. They have now realised that safe drinking water is a basic need for humans. The project staff analysed the challenges and supported the construction of three Drinking Water Supply schemes (DWS) for three toles in three months:

- *Chhiseri* DWS for *Jang* village with one intake, one reservoir tank (8 m^3), 10 public taps, one school tap, one animal trough and one public toilet for the stupa.
- *Changju* DWS for *Halzi* village with one intake, one reservoir tank (10 m^3), seven public taps, one school toilet and one improved water mill.
- Gunchhu DWS for *Till* village with one intake, one reservoir tank (6 m^3), four public taps and one improved water mill.
- One Improved Cooking Stove (ICS) for each household of ward no.6

Long-term Impacts: All 146 households benefited from the three DWS schemes. The community received Home Garden (HG) management training and they were sensitised to total sanitation and environmental protection. In addition, all the households received Improved Cooking Stoves (ICS). All of the villagers of the three toles received different types of capacity buildings. The project provided means to live in a more civilised way. During the six months of snow cover, the men still go to Taklakot to cover household expenses.

The project was able to change the lives of one of the remotest places in Nepal, which now has access to clean drinking water and the inhabitants are sensitised regarding total sanitation and livelihoods. “We, the people of these remote villages, are grateful to *Remorche* (Buddhist God) for the project that listens to the voices of the poor and supports poverty alleviation. We want to thank and congratulate the project for its great success and hope that it will be well known in the world” said the villagers.

Lesson Learnt: Even the remotest places can be improved through the hard work of individuals and development agencies. After these successful schemes the villagers recognised themselves as citizens of Nepal.



Another lesson learnt is to not always look at things with the same perspective. Each individual can contribute with their own point of view.

Humla, Sarkegad: Access to Drinking Water and Improved Water Mill Crucial in Remote Villages

Author: Barkh Bahadur Shahi, GWRO, Sarkegad RM, Humla

Introduction: Barai Village of Sarkegad RM is the most remote village of Humla district. The village is located close to Bhubre mountain peak and on a very steep slope with very little water.

Thanks to the hard work of the villagers, traditional food grains, such as millet and wheat, are grown here. However, a lack of grinding mills means that they have to grind with traditional hand operated stone grinders (Jatro), and as a result, eat coarse flour. If they want to consume finely ground flour, they have to walk one full day to reach another village (Rodikot or Gothi) with a water mill. They have to carry the food for the whole day in a *Chindo* (a type of gourd used as pot for transport). There is water scarcity in the settlement.

Major Activities: Sarkegad RM/RVWRMP supported Drinking Water Supply (DWS) and Improved Water Mill (IWM) schemes for the community. The *Ramchhen* DWS scheme was launched by Sarkegad RM/RVWRMP and many water sources were identified that were accessible with the five-kilometre transmission line. A large RVT and IWM were constructed for the community people and they are now very happy to have access to clean drinking water and the new mill (IWM) in their home village. 170 households have benefited from the IWM and DWS. The IWM can grind 2-3 quintals of flour per day, which is sufficient for the community members.

Long-term Impacts: The villagers gained access to safe drinking water in their own yards and an IWM that is beneficial for the whole community. With these improvements, people (typically women) could save 4-5 hours of walking time per day, and instead use the time for income generation or education. The community people of *Barai* now say that without the project their lives would be the same as their forefathers. They feel lucky and happy to have had a project that listens and identifies problems quickly and then fixes them.

“After the construction of the DWS and IWM the community people are very happy because they are free from hardships of the past” said Gyan Bdr. Budhathoki. Another villager, *Ransurn*

Budhathoki says that if the project was not implemented in their village, their living condition would have been the same from birth to death. They are very happy to have had this fast and transparent project implemented in their village.

The project provided various capacity building trainings, workshops and other activities related to sanitation. Thanks to this work, the community is now fully sensitised with respect to hygienic behaviour and the total sanitation movement. The people are highly appreciative for the exemplary work of the project and the entire community feels very happy and excited to declare their village smoke-free in the near future. The community people and ward chairperson appreciate and thank RVWRMP and the Support Organisation (Rural Reformative Development) for supporting a big scheme like this with full transparency and hope for continuous support in the future.

Lesson Learnt: Very small but essential things can make life miserable, but if these problems are fixed then life can be easy, happy and socio-economically sustainable for the community. After their basic needs were fulfilled, the villagers became enthusiastic about other development work. The project was successful thanks to hard work, honesty and transparency of the RVWRMP 'family'. The projects modality and strategy could make it possible to replicate in other RMs and development agencies.

LIVELIHOODS

Achham, Ramaroshan: Ex-combatant Transformed His Life to Become a Micro Entrepreneur

Author: Krishna Bahadur Rawal, GWRO, Ramaroshan RM, Achham

Introduction: Pathane Budha is a permanent resident of Ramaroshan RM-5, Lampada (ex-Ramaroshan VDC). He was born in 1983 (2040 BS) in Lampada as the third son in his family. As a member of a large family with financial constraints, he had to drop out of school when he was in the eighth grade. Ramaroshan was a CPN (Maoist) combat zone at that time, which was undergoing an armed insurgency. He became a *Janamilesia* at the age of 18 and became involved in the activities of the party. He was involved in the attacks of *Pandoon* (Kailali), *Khara* (Rukum), *Pili* (Kalikot) and *Tansen* (Palpa) with the Maoist army, and was also involved in the Dhangadhi prison attack.

After the ceasefire and the people's mass movement of 2005/06 (2062/063), he moved to the Masuria temporary camp in Kailali. At that time, he was the company co-commander of the Maoist forces and could have become a senior constable in the Nepalese Army if he chose. Instead, he chose a voluntary retirement and came out from camp no.7 as per the peace treaty between the GoN and CPN (Maoist). Retired soldiers were granted a total of NRs 5 lakhs in two instalments by the government. He used this money to buy land and build a house.

There was no source of income in the village for young villagers, which is why he decided to go abroad to earn money. He paid 150 000 Nepalese rupees for a five-year work permit in Malaysia and NRs. 225 000 to obtain a passport, shopping, spending and even submitting his papers. His employment in Malaysia involved making calling cards and file-making machines, but he couldn't make a good enough living.

It took 15 months to repay his loan taken for going abroad. From three years' employment in Malaysia he was only able to save NR. 150 000. He used this to establish a small grocery shop in the village which was named after his son **'Tapendra Grocery Store'** *PAN no. 609179064; 21/10/2075*. The grocery store alone was not profitable enough to cover the expenses of five family members. He believed that if he worked as hard as he worked in Malaysia, he could earn the same money even in Nepal and started going through options.

Major Activities: In Ramaroshan, the RM/RVWRMP organized six days of potato chips, *namkins* and *dalmoth* training in 2075. Budha participated in the training and learnt these skills. The project also provided him with equipment for cutting potato chips. Returning from the training, he believed that he could start a small enterprise in the village. Straight after returning from the training, he collected locally available, necessary materials at his own

expense. At present, he is selling potato chips, and namkins of Peas and Soybeans. The products he makes in one day are expected to be finished in two to three days. Budha makes packages worth Rs. 10 to Rs.100. These small packets are famous among students, who used to eat unhygienic and often expired biscuits and other snacks. Budha assures that his chips, namkins and dalmoths are fresh and hygienic, causing no health problems. “On average, profit from the products is five to seven thousand rupees” says Budha. He is happy that his products are popular, and he has been encouraged on by villagers, students, teachers, project staff and representatives.

Long-term Impacts: Ramaroshan RM is famous for producing potatoes, soybeans and peas. Thus, the community can provide raw materials for small industries. The entrepreneurs can collect these local products for a reasonable price, process and sell them. This system supports income generation and self-dependency. Budha is now in the process of registering his micro enterprise. He plans to produce his own brand and labelling of chips, namkins and dalmoths. He is currently collecting the necessary ingredients for commercial labelling, packaging and other equipment. He also plans to employ two locals in this venture. Budha is dreaming of becoming the owner of a successful small enterprise.

He is thankful to the project and to the villagers for their help in overcoming obstacles. Budha believes that if the government, RMs and projects such as RVWRMP support people like him, then he can agree with the Nepali government slogan of “**Prosperous Nepal and a Happy Nepali”**.

Lessons Learnt: The right combination of raw materials, quality manufacturing and marketing, will lead to user satisfaction and success for local entrepreneurs.

Achham, Turmakhand: Commercial Vegetable Farming Provided Education for Children and Made His Brother an Engineer! With no Loans Needed.

Author: Bal Bahadur Bista, GWRO, Turmakhand RM, Achham

Introduction: Mr. *Ujir Bayak, is a* 31-year-old permanent resident of Turmakhand-4 *Chisi* village in Achham district. He has a family of eight including his mother, father, brother, wife, three sons and himself. His family has been struggling financially and has had difficulties in providing food and education for his brother and children. He worked as social mobilizer in an NGO for seven years from 2008 to 2014 (2065-2072BS). His income was not enough to cover household expenses and education, so he went to *Simla Pahad* of Himachal Pradesh, India, in search of better income for about a year. With a daily wage of 200 NRs. for extremely tough work, he still couldn't afford his brother's and children's educational fees.

He returned to his hometown wanting to do something in his own village. Mr. Bayak started cultivating vegetables (cauliflower, peas and tomato) with seeds bought from the local agro-vet of Turmakhand, but he was unable to earn sufficient income, due to a lack of technical know-how and experience. He was fearful of the future.

Major Activities: The Rural Village Water Resources Management Project (RVWRMP) started working in his community from 2017 (2074 BS) with the objective of constructing access to drinking water and establishing Home Gardens (HGs). The goal of the Project was not only to provide clean drinking water to the rural people, but also livelihoods, through training on leader farmers, seasonal vegetable farming and multipurpose nurseries.

He became a Home Garden member, through which he acquired essential technical knowledge and understanding of vegetable farming. Thanks to his hard work, his group selected him as the leader farmer and was able to gain more technical knowledge by attending a five-day leader farmer training. He continued vegetable farming and was able to earn extra income. Currently, he cultivates seasonal and off-seasonal vegetables for commercial purposes in his farms.

Now he has an area of three ropani for commercial farming and he earns 120 000 NRs. annually. From the sale of oranges and lemons he has earned 200 000 NRs. He owns a nursery where he grows oranges, lemons, bamboo, fodder, and vegetable seedlings, from which he earns 80 000 NRs. per year. He also earns 65 000 NRs. from bee keeping. In total, he earned 465 000 NRs per year. In the past, when he worked in India, he was not even able to save 3,000 NRs. per month, due to his low salary and family expenses. But now he was able to deposit 160 000 NRs. annually after deducting all household expenses!

Long-term Impacts: His lifestyle has been completely changed and he is now able to educate his children in an English medium school as well as provide engineering education for his brother. "Through commercial farming, I helped my brother to become an engineer and I didn't have to take any loans from others" he said. He thanked RVWRMP and RUDEC Nepal for supporting him.

He further recalls the famous saying "hard work really gives you sweet fruits and if you have the will power to do something, you can earn a lot from your own field". He is now fully convinced that if you have sufficient local resources, materials and skills you can be self-employed. The people in the community highly appreciate his efforts and are trying to replicate his success in commercial vegetable farming.

Lesson Learnt: Given the opportunity and technical plus financial support, a hardworking person like *Ujir* can be a motor for change in his community. The extra income generated can then increase prosperity and provide a happy and healthy lifestyle. Demonstration of innovative ideas can influence and motivate individuals and the whole society.

Baitadi, Dilasaini: Inspiring Leader Farmer Madan Kapadi

Author: Purna Bahadur Chand, GWRO, Dilasaini, Baitadi

Introduction: Mr. Madan Raj Kapadi, is a 40-year-old permanent resident of Momroda village of Dilasaini RM-3, Baitadi district. He has a family of ten and his main sources of income are traditional farming and animal husbandry. In the village, it is common that villagers practice subsistence farming in order to survive.

Due to a lack of technical knowledge and skills combined with the challenges of a traditional farming system (such as insect pest attacks) Mr. Kapadi couldn't generate enough income to feed his family or cover the expenses of educating his children. There was no other option left for him except working as a wage worker. It was still difficult for him to cover all of his family expenses.

Major Activities: RVWRMP was launched in Dilasaini RM in 2018 (2075 BS). Madan's village was selected as a demonstration vegetable cluster. *Laliguras Home Garden* (HG) group was formed, with 23 farmers of Momroda village (22 female members and one male member). Mr. Kapadi was the only male member of his group, of which he became one of the leader farmers. He received three days of training on seasonal commercial vegetable farming. Madan Raj was very happy as he had never been involved in an HG group before. He was the best participant in the off-seasonal vegetable training organized by the project. Various types of materials were distributed to the participants, but there was only one poly house. After some discussion Madan was selected to be the poly house demonstrator.

Long-term Impacts: Madan was provided with a poly house as a demo, which he felt had its challenges. He started to construct the poly house and then planted the seeds of tomatoes, guard, pumpkin, brinjal, cucumber, etc. which were distributed by the project. Madan produced tomatoes and other vegetables and was able to earn 85 000 NRs by selling his products. The project staff and SO-ARRC field staff have facilitated his work.

Madan wants to say that "traditional farming is not enough to meet daily needs of larger families". He was able to earn a significant income from seasonal vegetable farming and now can support his children's education. The Laliguras Farmer Group currently has 16 poly houses, of which three are owned by Madan Kapadi. Madan was also able to earn 35 000 rupees from cucumber and 50 000 rupees from tomato, cauliflower, cabbage and pumpkin cultivation in his open field.

Madan says that "the project changed his life so it's his God". He is very thankful to the project and has paid back the loan he took from group. Earlier, community members could only buy vegetables from the market. After seeing Madan's products, other farmers are trying to replicate his success and produce vegetables in their own farms. Madan always encourages his community members to grow vegetables in their fields, sell them in local markets and enjoy them with families.

Lesson Learnt: As a demonstration farmer for Dilasaini Gaopalika, *Madan Kapadi* has proved that everything is possible if one works hard. From the struggles and success of Kapadi, we can see that if the right person is chosen for the right purpose, he or she can achieve great things and inspire others to follow suit.

Bajhang, Talkot: Commercial Vegetable Cultivation: A Viable Source of Income

Author: Kamal Khadka, GWRO, Talkot RM Bajhang

Introduction: Mr. *Rajendra Aidi*, 38 years old, was born in a poor farmer family. His household includes six family members: wife, two sons, three daughters and himself. He is a resident of Ward 1, Talkot RM, Sunikot, Bajhang district. Rajendra's primary source of income used to be small-scale traditional farming, but it was difficult to earn enough to pay for household expenses. He wanted to improve his living conditions and dreamt of affording good schooling for his children, which is why he joined the Nepalese Army. However, things didn't really improve, and he had to think of something else. He believed that by working hard and growing seasonal and non-seasonal vegetables in his own farm, he could get more income, so he resigned his army job.

Major Activities: RVWRMP was implemented in Talkot RM and a Drinking Water Supply (DWS) project was started at Ward -1 Sunikot village. As a part of the DWS project, Home Garden (HG) groups were formed and Rajendra was selected as the HG secretary and later as a leader farmer of the HG group. He received three days of HG training and five days of leader farmer training organized by the project. The project has supported the building of poly houses for the cultivation of off-seasonal vegetables. Rajendra has four poly houses, of which two were supported by RVWRMP and 2 are his own. He also has eight plastic tunnels for vegetables. He produces tomatoes, cucumbers, cauliflower, cabbages and other vegetables. He also has oranges, lemons and other fruits in his farm.

Long-term Impacts: The HG group is savings 20 rupees per month. Rajendra is able to earn 300 - 400 thousand rupees per year after deducting all home expenses. With this income he was able to afford his children's school fees in the English medium school at Chainpur bazaar. He also became a demo farmer for the Talkot RM and provides support to other HG members. Rajendra is thankful to the project, which has made a difference in his community, by training the people, distributing seed production, poly house construction and farming, tunnel house construction, nursery bed preparation, irrigation and layer mulching and pesticides.

The RM, together with RVWRMP, has started the construction of 19 poly houses for off-seasonal vegetable production. The HG members meeting discussed the advanced level production of vegetables from 25 tunnel houses. They pal to collect the production and sell to market as group, in order to achieve better prices.

Lesson Learnt: Commercial vegetable cultivation is a good means of income generation. A strong willingness towards commercial works leads to success and can inspire others to replicate and support other career and income related developments**.**

Bajhang, Thalara: From Forlorn to Fertile: Upland Vegetable Pocket Changes Lives & Livelihoods

Author: Chhatra Raj Joshi, GWRO, Thalara RM, Bajhang

Introduction: *Kasudi* is an upland area of about 60 ropani in Bajhang District. It is situated west of *Kedar Syau* RM-9, 3 Km from *Jhota* Bazaar, 1 Km from *Sahajpur Bazaar* in the south and east of Thalara RM-4 *Moyal* community. *Kasudi* is a terraced field dependent on rainwater, so it was only cultivated during the rainy season.

"The people of the *Moyal* community were having difficulties growing food grains due to a lack of irrigation since 2018 (2075BS). However, there is a great potential for improving the economic situation through vegetable farming commercially and seasonally", said Bishnu Bist, chairperson of ward no. 4. "The Poverty Alleviation Fund PAF and *SAPROS* Nepal worked in this village in 2000 (2057BS). The PAF/SAPROSS Nepal constructed an irrigation canal and a 52 000-litre pond for irrigation. The community people have used the pond for cultivating rice, wheat and chilli for the past five years," Bist remarked.

Major Activities: From Chaitra/March 2018 (2075BS), Thalara RM/RVWRMP initiated a new concept of a vegetable pocket in the Kasudi village. The project also supported modern irrigation technology (MIT) for the *v*egetable production pocket. The MIT scheme agreement provided sufficient water for irrigation brought through an HDPE piped system from the existing pond. The new MIT irrigation scheme consisted of four new ponds and irrigation uptakes and it spanned six ropani. Ten poly houses were constructed for nine farmers as well as five tunnels for 18 farmers. A land area of five ropani was used to cultivate cucumber, squash pumpkin, cauliflower, cabbage, tomatoes, bitter guard, mustard green, coriander, peas, etc. Last year, the 10 poly houses produced 25 quintals of tomatoes from which the

farmers were able to earn 125 000 rupees. Cucumber and squash pumpkins were also produced in the tunnels.

Summary: "The *Kasudi* upland scheme transformed infertile land to a vegetable pocket that provides vegetables during the entire year" said Mr. Kalak Bdr. Bist, chairperson of *Dhan KISAN* Agriculture group *Thalara-4 Moyal*. "By combining motivation, small financial support, agricultural tools, seeds, and technology with capacity building training to the community people, great improvements can be made to the traditional farming system. The farmers witnessed how rainfall-dependent barren land can be changed into fertile and useful land for vegetable production and income generation.

Lesson learnt: Joint effort of development agencies and community people may change the barren land to cultivated land if proper and timely technical, technology and financial support is made available. These improvements coupled with frequent monitoring can improve the traditional farming systems and help improve the community lifestyle.

Bajura, Gaumul: How Commercial Vegetable Farming Changes Lives

Author: Ran BK, GWRO, Gaumul RM, Bajura

Introduction: Ms. Fagu Rokaya, a 46-year old inhabitant of Khadikhet village of Gaumul RM-4, Bajura district has a household of eight, including 6 children. She was inspired by home garden training provided by DCC/RVWRMP Bajura. Vegetable farming was not practiced in the village earlier and the inhabitants didn't eat vegetables with their food. "They used salt, chili and sour milk as vegetables" – Fagu said. Before the RVWRMP intervention in Khadikhet

village, vegetable farming was not practiced in and the inhabitants didn't eat vegetables with their food. "They used salt, chili and sour milk as vegetables" – Fagu said. Her financial status was poor: she used to practice pottery and bought groceries on credit before the intervention.

Major Activities: She joined a home garden (HG) management group in 2015 (2072 BS) and received training on HG and commercial vegetable farming organized by DDC/RVWRMP. After the training she was interested in vegetable farming and spice production. Now she cultivates various products, such as: tomatoes, potatoes, pumpkin, cucumber, guard, bitter guard, brinjal, cauliflower, cabbage, spices, chilly, ginger and onion. With this livelihood she was able to save NRs. 70,000 per year after all annual expenses. She was thus able to provide for her family and is planning to get a poly house in the future.

Long-term Impacts: After three years of practicing home gardening for commercial use, she has been able to save 210 000 rupees. She has started a grocery store and is running a hotel in *Nilasain*. She is getting double benefits through selling vegetables, both cooked and fresh. She is planning to develop her business further in order to afford quality education for her children. Fagu has inspired people in her village and many want to replicate her success. Through hard work, the community will be able to grow vegetables commercially and generate much needed income. Fagu is planning to produce vegetable spices and fruits in her farm from next year onwards.

Lesson learnt: The villagers realized the possibilities of commercial vegetable farming. Commercial farming can provide four times the income compared to traditional subsistence farming practices. Thus, commercial vegetable farming ensures improved food security and nutrition.

Bajura, Swamikartik Khapar: Changing Lives through Commercial Vegetable Farming – The Story of Anita Shahi

Author: Ran BK, GWRO, Gaumul RM, Bajura

Introduction: *Anita Shahi* is a 27-year old woman with five family members: two sons, one daughter, her husband and herself. She lives in the Himalayan Jukot village of Swami Kartik Khapar RM which is located far from the district headquarters in Bajura. The village is lacking in education and health services, electricity access and transport connections are poor, and it is far away from the nearest marketplace. The climate of this region is cold as it is located in the temperate zone. The villagers grow crops, such as barley, millet, buckwheat and beans as well as potatoes, green vegetables, chili and apples. Beans and amaranths (Bethe/Latte) are the only seasonal vegetables that grow in the rainy season, so the community people are used to eating them with salt and sour milk only. Winters can be very cold, with snow covering the hills.

Major Activities: RVWRMP launched HG groups in Swami Kartik Khapar RM, giving Anita Shahi the opportunity to get involved. She participated in a five-day leader farmers training organized by the project. She received technical and seed support in order to begin vegetable production. She was than able to produce tomato and capsicum, which the other villagers had never seen growing in Jukot village before. The inhabitants were surprised to see vegetables that were previously only sold in urban areas, being grown in their own village. Furthermore, she also managed to grow summer squash, okra, green leafy vegetables, cucumber, bottle gourd, bitter gourd and beans. She used bio-pesticides and managed farmyard manure with a solid waste pit, maintaining hygiene of utensils with washing and drying racks. Her husband supported her with the vegetable farming. The nearest market (Kolti Bazaar) is far from her home so she normally sells vegetables in her village. Sometimes she would also go to the Bazaar to sell vegetables and purchase stationery for her children.

Long-term Impacts: Anita's house proves to the other inhabitants that new types of vegetable production are possible in their village. She has an inspiring personality and through her production she has been able to afford small household expenses and her children's education. Anita is a role model for the village and other villagers are trying to replicate her success. The villagers and Anita have also requested a drinking water supply scheme from RV so that they may have access to safe drinking water and can use wastewater for commercial vegetable farming. Now Anita is working as a local resource person (LRP) of the RM and RVWRMP in Bajura, and she is trying to convince the community people that commercial vegetable production improves food security and nutrition as well as generating income.

Lesson Learnt: With a strong commitment toward changing your situation and by starting with small steps, you can be successful. Then, you can inspire and mobilize others to improve their livelihoods as well.

Dadeldhura, Ajaymeru: From Working in India to Commercial Vegetable Farming in his Own Village: The Story of Mahesh Bhandari

Author: Sindhu Bohara Awasthi, GWRO, Ajaymeru RM, Dadeldhura

Introduction: *Mahesh Bhandari* is a 40-years old, permanent resident of Ajaymeru RM-1 *Khateda* Dadeldhura district, who has worked in a private company in India for 17 years. Living far away from home was difficult and as his income decreased, he was hardly able to visit his family even once a year. He decided to try vegetable farming in his home village in order to get better income. "He went to India for employment but had difficulties in being able to

afford family expenses. He was also worried about leaving his home and children" said his wife. In general, the people of Khateda practice traditional farming in order to survive and many villagers go work in India to earn additional income.

Major Activities: As RVWRMP launched in Ajaymeru RM, Mr. Mahesh participated in three days of commercial vegetable farming and five days of multi-purpose nursery raising training. He constructed a poly house with the financial and technical support of Ajaymeru RM/RVWRMP. Since then he has been able to earn 35 000 - 50 000 rupees per season after all expenses. He was able to earn 180 000 rupees annually from his commercial farming in five ropani of land from vegetable and multipurpose nursery production.

Long-term Impacts: Mr. Bhandari has provided fresh vegetables for the village and is now a role model. Many members of the community are replicating his commercial farming methods for household consumption and sale. Family members are engaged in income generation activities, which have led to improved family and social harmony due to close engagement of members and community.

Lessons Learnt: Agriculture related activities can be started with very small steps. With commercial farming training and a strong will, one can be successful. The agriculture business makes people independent and self-employed. Benefits include not only more income and improved food security, nutrition and health, but also better family and social harmony.

Dailekh, Bhagawatimai: Diverse Livelihoods Leading to More Income

Author: Prakash Chandra Thapa, GWRO, Bhagawatimai RM, Dailekh

Introduction: *Netra Bahadur Thapa* is a 27-year-old permanent resident of Bhagwatimai ward No. 4 Manghar Dailekh district. He has nine family members including his parents, wife and children. He has to look after all of his family members economically and socially. His house is located on the side of the Central Hills Highway, which has provided him with more opportunities to sell and market his agricultural business. His ward is connected to the *Chhedachhad* municipality in the Jajarkot district. From *Jajarkot* to *Sueda*, there are regular bus connections to Surkhet, also making it easier for him to access good markets. Before being inspired to practice commercial agriculture, he was working short-term jobs at a local level making it difficult to cover his family expenses.

Major Activities: As the RVWRMP-III project began activities in his ward, he decided to join the Home Garden (HG) activities with the aim of becoming a good leader farmer in his group and community. He motivated fellow community people by starting livelihood activities in his

farm. He became an inspiring person in the community through his activities and his demonstration vegetable production. He was selected as the Local Resource Person (LRP) for Bhagawatimai RM/RVWRMP. He then started to motivate the community and support vegetable production as an employee of the RM/Project. The RM/project successfully completed the *Sahade Irrigation* scheme, which fulfilled a basic need for the community: irrigation for 155 households, supplying a 250 ropani land area with nine ponds.

After getting access to water, farmers have become motivated to produce vegetables commercially. In total, the project has completed six different DWS schemes in the ward. The ward No. 4 scheme area has been declared smoke free with the support of RVWRMP. In addition, Kalika MV was developed as a WASH friendly school and will be declared as a three-star WASH school. Community farming and commercial vegetable farming were selected as activities for the ward in collaboration with the RM and the project. As the community requested, 25 poly houses were distributed to 25 farmers. For this great achievement Mr. Thapa was chosen as an inspirational personality in the community.

Presently *Netra* is farming various vegetables to generate income and he is providing technical backup to other farmers as well. He sells his products at *Dailekh Bazaar, Bastada, Gujalika Center, Sueda Bazaar and Manghar*. Last year he earned a net income of 200 000 rupees from commercial vegetable production, 100 000 rupees from selling goats, 75 000 rupees from selling fodder seedlings and 30 000 rupees from selling seeds. His multipurpose nursery is highly appreciated. He notes that there were other people as well who were trained and supported by the project but didn't improve their situation as they were less committed and hard working. He is thankful for the project as it motivated him and made him an inspiration and a well-known leader farmer of the RM. He remembers the past, when he searched for short-term jobs, but couldn't find any. Now he doesn't have to think about any other jobs, and he is happy to be able to provide short term employment for his villagers.

Long-term Impacts: As *Netra* became a demonstration farmer of Bhagawatimai RM he gave his best not only for himself but also for the community. Now, he earns nearly 30 000 rupees per month. Before, the young people used to roam around the village, but now they don't

have time because they are practicing vegetable cultivation. Mr. Thapa has also established an advanced goat farm, to which he invested 5 lakhs of his own money. He wants to breed 100 % Boyer female goats and distribute them in the whole ward. In addition to this, he wishes to construct a fodder nursery with a capacity of 100 000 seedlings. Currently he has a test nursery with 3 000 seedless mulberries (*kimon),* kiwifruit and avocado. His neighbours are now trying to replicate his success in commercial vegetable production and gradually moving away from traditional farming. One of these neighbours is *K B Jang Thapa*, a teacher at *Kalika MV*, who says, "I am a teacher by profession, but it is difficult to cover all the family expenses. I started vegetable production as a secondary profession, and I was able to sell 10 quintals of garlic in Surkhet last year." The other farmers are following suit and have even constructed a storage for potatoes.

Lessons Learnt: Small steps and hard work led to success. Mr. *Netra Thapa* was promoted as the LRP from the RM/RV and now he is a role model for others. He is not only self-employed but also employs other members of his community. If you work hard on your own farm you may get more success than from working in India or other countries. According to *Netra Thapa*, youngsters should not waste their best years working in foreign countries but concentrate on improving the situation at home. Then the future of their children will also be bright.

Dailekh, Naumule: Marginal Land Turned into a Gold Mine of Cardamom Cultivation

Author: Lok Bahadur Bogati, GWRO, Naumule RM, Dailekh

Introduction: According to the constitution of Nepal 2072 (2015AD), a federalised three-tier state system was developed with nine existing VDCs being merged into Naumule RM. Naumule RM's motto is "hydropower, herbs, tourism, infrastructure, commercial agriculture and good governance,". Among the six local levels of Dailekh district, Naumule RM is beautiful and full of natural resources. It is located in the eastern part of the district.

About 85 % of the population in the RM are Hindu and the inhabitants include *Magar, Bahun, Chhetri, Thakuri, Janjati, Dalit* and other minority groups. Naumule had a bad reputation during the insurgency period as many people were killed or coerced to migrate. Now the people who migrated are returning with new professions. *Salkot* village of Naumule-5 is inhabited by a *Magar* community. The land is moist and infertile even with irrigation and it has many areas of marginal land. The young people have travelled aboard to Lahore or other regions in order to earn money. Elderly people and women are looking after homes and families.

Major Activities: Only women and elderly people were available for mass meetings in the village. People usually responded with a pessimistic attitude towards self-employment or income generation due to the challenges of the barren and moist land. However, the project initiated the *Naulathar* large cardamom production group, which consists of 22 female group

members. The project helped train the group three years ago and supported the acquisition of 46 000 large cardamom saplings for a land area of 46 ropani, without spoiling the natural landscape.

In the beginning, the farmers were having doubts about what could be cultivated. In the beginning, the work was challenging for both the project and the farmers as there was no experiences of cultivating cardamom in the slopes of this area of Dailekh. However, after the good growth of the sample was observed in 2017/2018 (2074/075), the project supported an additional 100 000 large cardamom saplings to 102 households and an additional 25 000 seedlings to the *Salkot* area. Currently, an area of nearly 150 ropani land is used for cardamom cultivation. The project has also supported purchase of a modern dryer for quality drying of cardamom. It is estimated that the land will provide 70 quintals of dried cardamom annually, which would provide an income of approximately 50 lakhs.

Long-term Impacts: Now the entire area of previously infertile land is used for large cardamom cultivation. It begins its growth cycle in March-April and is and harvested in October-November. Six farmers produced 70 Kg of large cardamom and sold it in a local market. *Dil Kumari Thapa,* a local farmer sold 10 000 cardamom saplings for 70 000 NRs. to farmers of Bajhang district in Ashadh 2076. *Hira Buda Magar*, another member of the group said that: “the modern dryer installed by the project in the middle of the village, dries the cardamom in 8-12 hours providing one quintal of quality cardamom at a time.

As per the business plan of the group, 1 lakh worth of saplings will be planted by 100 additional farmers, another modern dryer will be installed, and the cardamom value chain will be promoted. The cultivation of cardamom has also prevented soil erosion and landslides in the sloping land where no food grains are produced. The farmers are dreaming of higher incomes to help provide for their families. Finally, Heera Budha says, "The utilization of marginal land will fulfil the golden dreams of our lives."

Lesson Learnt: Dreams can be fulfilled if you work hard and with honesty. The joint effort of development partners and the willingness of community people is crucial for success. Even marginal land can be a gold mine for the community, and it can provide a much-needed source of income for individuals.

Darchula, Marma: Age is not an Obstacle when it Comes to Commercial Vegetable Farming

Author: Ramesh Chandra Awasthi, GWRO, Marma RM, Darchula

Introduction: *Padam Singh Thagunna is a* 67-year-old permanent resident of Marma-1 *Jude* village, Darchula district with a family of eight. It was difficult to cover the expenditures of the family, which is why his son had gone to India for seasonal work. His background is political as he was an area member of DDC Darchula and he was known for his ability to motivate the community. He supported RVWRMP from 2015/16 (2072/073BS) through the Open Defecation Free (ODF) movement and Water Use Master Plan (WUMP) preparation in *Guljar VDC*. Then Home Garden groups and trainings were organised in his village and he got a chance to participate in local resource person training from *Punna Doti*. This training encouraged him to start commercial vegetable production. The project has provided him with technical support, a poly house and seeds.

Project Activities: Before the RVWRMP intervention in the village, Padam was interested in vegetable farming, but he lacked essential equipment and knowledge. When RVWRMP launched the Jude Ghutghute Drinking Water Scheme (DWS) scheme in the village, home garden training and technical and physical supports of one poly house, drip irrigation and a drum were provided to him. He modified the three ropani area, which he had previously used for traditional farming and now he has two poly houses for farming vegetables i.e. tomatoes, cauliflower, cucumber, beans and other seasonal and off-season products. He is now fully employed through vegetable farming and is an exemplary farmer of Marma RM, earning his entire income from this. He is also the chairperson of the *Marmali* Fruit Production and Processing Centre and he produces Amala pickle in village. His son returned home from India to support him in commercial vegetable farming, as it was more beneficial than seasonal work.

RVWRMP is continuously supporting Marma RM by organizing home garden trainings, leader farmer trainings, commercial (both seasonal and off-season) vegetable production, refresher trainings, workshops /seminars, hybrid seed support and full technical and marketing support to community people.

Long-term Impacts: Thanks to the RM/RVWRMP support for livelihood activities in Marma, Padam is able to pay for his family expenses. He and his son are supporting their family, and their status is higher than before due to commercial vegetable farming. He was able to save 100 000 rupees from tomato and cucumber production from two poly houses. Thanks to his daily/seasonal sales of vegetables he was able to provide good education (English medium

school) to his grandson and granddaughter in Mahendra Nagar, Kanchanpur district. He has become the role model of Marma RM on vegetable production and the other community people try to follow his lead. Now, there are more than five commercial farmers in his village. This community is very close to the RM headquarters and the roadhead, so it is easy to sell their products. The project has improved the financial situation and overall health and nutrition of the community. Padam says that "the project made vegetable farming possible for older people such as himself, and it will support him in his old age".

Lesson Learnt: The selection of motivated individuals to Home Garden groups always leads to success. The financial situation of families can be improved through commercial vegetable production. Age is never an obstacle and if you work hard with a strong commitment, you can be successful.

Darchula, Naugad: Commercial Vegetable Farming is Changing Lives

Author: Harimal Singh Thagunna, GWRO, Naugad RM, Darchula

Introduction: Chimade Dhami is a 55-year old permanent resident of Naugad-5 Basar village in the Darchula district. Before joining an RVWRMP Home Garden group, he used to work at a local market and other sites, however it was too difficult for him to cover his household expenses. He was interested in vegetable farming but lacked essential equipment and knowledge.

The people in the community used to grow conventional vegetables i.e. pumpkin, potato, onion, mustard etc. for home consumption, but only limited amounts on a seasonal basis, using rainwater. Their food habit was to consume them with sour milk and salt, but they had insufficient vegetables to cover their daily needs. The villagers never bought vegetables. Instead, if someone grew them, they were shared with neighbours and relatives.

Project Activities Implemented: In 2015/16 (2072/073 BS) RVWRMP launched a Drinking Water Supply scheme in Dhaulote Basar village. Chimade Dhami joined a Home Garden group and received home garden management training, support for one poly house, drip irrigation, a drum, seed and technical support. He then started commercial vegetable and spice farming.

Thanks to this help, that same year he was able to earn 40 000 rupees by selling tomatoes. Since then he has continued with commercial vegetable production. RVWRMP is supporting Naugad RM-5 Basar by organizing trainings on home gardens, Leader Farmers and commercial (Seasonal/Off-season) vegetable production, as well as refresher training and workshops/ seminars. RVWRMP has also provided hybrid seed support, including full technical and marketing support to the community people. Now Mr Dhami is able to produce vegetables for home consumption and to sell them to generate income.

Long-term Impacts: With RM/RVWRMP support for livelihood activities, the community members of Dhaulote Basar are leaving traditional farming practices and moving on to commercial vegetable and spice production. As the community is close to the RM headquarters and linked with a road, it is easy to sell their produce and generate more income.

Lesson Learnt: It is important to select individuals with a keen interest as Home Garden group members. They can then inspire other community members as well. Financial, technical & marketing support as well as motivational empowerment are essential for commercial and sustainable development.

Doti, Sayal: Transforming Conventional Millet Farms to High Profit Commercial Vegetable Production

Author: Ganesh Pd. Upadhaya, GWRO, Sayal RM, Doti

Introduction: *Lok Bahadur Khati* is a 47-year-old permanent resident of Sayal RM-5 Koteli Dharmi village. In the past, the land of *Debarmandu* was cultivated only with millet but now the whole area is covered white poly houses for vegetable farming. In the beginning, people used to tease farmers that were practicing commercial vegetable production, saying that they are mad and spoiling their land with plastic houses. "I was surrounded with poverty, illiteracy and unemployment, so I went to India at the age of 17 to earn a living" said Lok Bahadur. In 2070 BS *Lok* returned from India and got involved in an agriculture group. He started vegetable farming, but it was difficult to start commercial vegetable production, as he had no irrigation and no easy access to drinking water. It usually took half an hour to get water from the drinking water supply (DWS) or rainwater storage for vegetable farming, which is why only millet was grown during the rainy season and the land was then left uncultivated until the next season. Lok was planning on returning to India to earn more income.

Project Activities: Mr. *Lok* heard about RVWRMP launching in *Sayal* RM Doti district and he returned back from India in 2013 (2070 BS). As the DWS scheme in *Koteli Dharmi* in Sayal RM began, he got the opportunity to work as a Village Maintenance Worker (VMW) and then he got involved with *Bhubneshori* Home Garden (HG) groups. He received HG training and started commercial vegetable farming in a poly house supported by the project. Now his HG group has 27 members and all of them have started vegetable farming, managing farmyard manure, vermiculture, producing vegetables and spices and using bio-pesticides. In the *Koteli Dharmi* village eight farmers have 10 poly houses which are used for commercial tomato production. Before they used to grow green leaves, coriander and onions but the harvest was frequently uncertain due to a lack of irrigation. After the completion of the DWS, they have been using wastewater for vegetable farming and earning money from the sale of vegetables.

Long-term Impacts: 10 poly houses were built for commercial vegetable production and now other farmers have started to replicate the process. Sometimes insects spoil the products, but the project is aware of this problem and is supporting new methods, such as using insect netting and plastic mulching in farms. The farmers are able to earn 75-80 000 rupees per year. In addition, they have received support to construct dish washing platforms and drying racks, training on the importance of clean toilets, environmental sanitation, farmyard management, and improved cooking stove (ICS) installation. The farmers have a plan to declare the village a total sanitised ward of Sayal RM, Doti. The project covers 200 000 rupees, with the RM covering 100 000 rupees and the farmers paying 5 000 rupees member. 11 members have invested 55 000 rupees in the project.

Lesson Learnt: A conventional millet farm with a very small possibility of income generation can be changed into a high profit commercial vegetable production operation.

Mr. Gobardhan *Jo*shi, the chief of the agriculture section of Sayal RM said: “The poly house cluster has taught them the skills to grow vegetables for commercial production, which can serve as an example for other villages/clusters of the RM. This joint effort has been fruitful and so I wish for a continuation of the joint collaboration between the RM and project.” Farmers need to realise the importance of commercial farming for food security, nutrition, income generation and sustainable development.

Kailali, Chure: From Subsistence Farming to Modern Agriculture

Author: Purnanand Awasthi, GWRO, Chure RM, Kailali

Introduction: *Govind Bahadur Dhami* is a permanent resident of Chure RM-5 Khanidada cluster of Kailali district. He was born in a poor farmer's family and has had to look after seven family members. His family has depended on traditional subsistence farming in the past.

Project Activities: RVWRMP started WASH and livelihood activities in Baishakh at Chure RM in 2018 (2075 BS). The project formed home garden management groups in a DWS covered catchment area. *Govind* was involved as an HG member. He received leadership and farmer training organized by the project. After the training he decided to move away from traditional farming methods and concentrate on modern agriculture technology. Govind began to grow seasonal and off seasonal vegetables in his garden.

Now he is growing cucumbers, pumpkins, bitter gourd, cauliflower, cabbage, tomatoes, onions, garlic, coriander and other vegetables in a poly house and vegetable patches. He has earned 350,000 NPR by selling the aforementioned vegetables and fruits. Govind has benefitted from his active and hardworking attitude and his participation in various trainings, workshops and agriculture-related activities.

Long-term Impacts: With the income he generated from vegetable production, he was able to buy a **mini tiller** and other equipment to use with modern production methods. He has also established a computer training center at *Khanidada Chure,* Kailali. His training from DDC/RVWRMP empowered him and now he was been selected as a local resource person (LRP) for Chure RM/RVWRMP. "I am enthusiastic about my new opportunity as an LRP and I have now registered an agricultural company to increase production", he explained. He thanked all of his supporters and committed to support fellow farmers to begin using new techniques.

Lesson Learnt: Subsistence farming is not enough to cover day to day expenses for most families. A strong willingness to try to improve one's situation coupled with financial, technical and social support can lead to major lifestyle changes for individuals and society.

Kailali, Mohanyal: From Severe Food Scarcity to a Happy Village

Author: Birendra Joshi, GWRO, Mohanyal RM, Kailali

Introduction: *Deepak Punmagar is a* permanent resident of Mohanyal RM -1 Payaraxa, Kailali. He lives in a *Magar* cluster of 65 households, that can be reached by crossing the *Chure* hills on the Karnali riverside, 150 km from the Kailali district headquarters in Dhangadhi. The *Magar* community has faced severe food scarcity. Due to conventional/traditional farming and small farm sizes, they were forced to work as labourers in order to maintain their families. The community had no access to safe drinking water in the cluster and no vegetables were eaten with meals.

Project Activities: The RVWRMP project started in the cluster in 2013 (2070BS). A Drinking Water Supply (DWS) scheme was completed and home garden activities were started in the community. The project taught the community people to eat and grow vegetables for daily use for both their own nutrition and income generation. *Deepak Punmagar* was a dedicated and hard worker, so he was selected to be the Nursery Manager and trained in multi-purpose nursery raising activities.

Long-term Impacts: Now Deepak has a good knowledge in nursery management and vegetable production. He established the *Ulangepan Multiple-Purpose Nursery* with 2500 seasonal seedlings of lemon, pomegranate and fodder. He has sold vegetable seeds for 15 000 rupees and nursery seedlings for 10 000 rupees from his nursery. He was selected as the local resource person (LRP) from the RM/RVWRMP and currently he is planning to upgrade the nursery. He has already constructed a new irrigation pond.

As the Local Resource Person (LRP) for Mohanyal RM, Deepak has supported home garden group members on seasonal and off seasonal commercial vegetable production, monitoring and following the home garden groups. Deepak says that the project has really changed his life and he is fully devoted to the project. The villagers are very happy with the access to safe drinking water and livelihood programs and are trying to replicate Deepak's work. They have started to grow vegetables and changed their food habits by eating vegetables. The overall health, nutrition, hygiene and sanitation have improved.

Lesson Learnt: Farmers need to understand the possibilities of commercial farming for food security, nutrition value, income generation and sustainable development for individuals, the community and the country. With a strong ambition and technical, financial and social support, individuals can change their ways of life and contribute to better societies in the future.

MULTIPLE USE SYSTEMS

Baitadi, Pancheswor: How Multiple Use Water Systems (MuS) Schemes can Transform Village Life

Author: Padam Bahadur Chand GWRO, Pancheshor RM, Baitadi

Introduction: The village of Bagretthi in Ward 3 of Pancheswor rural municipality, Baitadi, is like any of the villages in the region. Most of the inhabitants practise conventional or subsistence agriculture, while younger villagers go to India to find work. Maize, wheat and rice are the main food crops, but there are no flour mills for grinding the grains. Instead, traditional hand operated stone grinders (*jatras)* are used. Without these jatras villagers would have to walk a long distance to another village to use a costly diesel mill. Men are generally absent, meaning that women have to take care of grinding the grains and feeding their families, spending on average 2 hours a day on making flour. Additionally, there is an issue with water supply as stated by the chairperson of the ward: Min Bahadur Chand. Although there is a stream nearby, it can't be utilised properly due to unmanaged canals and pipes.

Major Activities: RVWRMP Pancheswor completed two schemes for the Patal Bhagirathi Multiple Use Water Systems (MUS) project in 2017/2018 (2074/2075 BS). The schemes provided clean drinking water through eight public taps, irrigation from High Density Polyethylene (HDPE) piped water collected from the pond, where one Improved Water Mill (IWM) was established. This provides the community with clean drinking water for both health and hygiene, and irrigation for vegetable production and thus easing the workload especially on the women and children.

After completing the MUS schemes, in Pancheswor RVWRMP formed the *Hatairaj* Home Garden Management group of 26 farmers in the village of *Bagretthi* in 2074 BS and organized home garden training for them. As a result, all the members of the group started cultivating vegetables for their own use and for sale. The farmers sold a large quantity of vegetables at the local market at *Mad* and *Kulaun* bazar. In the meantime, the chairperson Mr. *Narayan Chand* Chairperson and the secretary Mr. *Man Bdr. of this* home garden group, installed a poly-house with the support of ward no.3 of Pancheswor RM. The poly-house is used to cultivate tomatoes, cucumber, cauliflower, cabbage and other vegetables that are sold for approximately 40,000 rupees annually.

Long-term Impacts: The area was declared a vegetable pocket in 2018/2019 (2075/2076 BS) by the Pancheswor RM with the support of the Project. The chairperson of Ward 3 stated that

the “Bagretthi Vegetable Pocket will supply vegetables for the entire RM as well as neighbouring municipalities on a seasonal and off-season basis”. Currently, the pocket has 11 poly-houses installed, earning at least 25-50,000 rupees annually per household. During the recent fiscal year, the farmers asked for five in order to “reduce the seasonal migration to India by depending on commercial vegetable production that will improve nutrition and reduce poverty,” said *Min Bdr. Chand* the ward chairperson.

Lesson Learnt: The project outcomes showed that a multi-use system can be very useful for a community due to the optimisation of water (drinking water, irrigation, IWM and livelihoods). A joint effort by the rural municipalities and RVWRMP, together with the community, can improve villagers’ living standards which can then be replicated in other communities and rural municipalities

TOTAL SANITATION

Baitadi, Shivnath: The Inspiration of a Female Community Health Volunteer to Move Towards Total Sanitation

Author: Harsh Raj Bhatta GWRO, Shivnath RM, Baitadi

Introduction: Ms. *Ratana* Saud is a 27-year-old, permanent resident of *Baru* tole (neighbourhood), in ward 4 of Shivanath Rural Municipality (RM), Baitadi district. She lives with her extended family, including her 15-month-old son. She has 10 ropani of fertile and 6 of barren land. Her family has been involved in traditional farming and animal husbandry, having 1 cow, 2 oxen, 2 buffaloes and 3 goats. Her home production was hardly able to feed the family for 5-6 months, and to earn enough to eat during the remaining months, she has to work as a daily wage labourer in the village. Her sister-in-law has a small job at village which supports most of her family expenses.

Their household sanitation and hygiene status were weak; however, the RM/village has been declared open defecation free (ODF). The family used to live in a large room upstairs, while the livestock were kept under the house. The menstruating women had to sleep in the cowshed, with only small blankets and straw. Toilets, public taps, milk, curd and other nutritious foods were not allowed to menstruating women in the entire lower belt (*Tallo Swarad)* of Baitadi district. There was a traditional belief that if the menstruating women drink cow or buffalo milk, the animal might get sick and die, as the god would be angry. Consequently, they were not allowed to drink milk and they had go to the stream or riverside for bathing and defecation.

Earlier *Ratana's* house had no separate kitchen, cowshed or toilet, and no indicators of good hygiene and sanitation management. She had to follow all the conservative taboos of society. The family used to collect cow dung in front of the house, for use as fertilizer for the wheat field.

Major Activities: RVWRMP launched the Baru Drinking Water Scheme (DWS) in ward 4 of Shivanath RM, during 2075/076. *Ratana* participated in the project awareness-raising, mass meetings, Menstrual Hygiene Management (MHM) workshops and campaigns from 2075. *Ratana* was appointed as a Female Community Health Volunteer (FCHV) of Shivanath-4 and committed to change herself and the community. She has started to work towards 'total sanitation', including constructing a separate kitchen, cowshed, dishwashing stand, utensil drying rack and solid waste pit. She has constructed a compost pit and is working on commercial vegetable production in 1.5 ropani of her land. She hopes that the community people may copy her. Home garden management groups were formed for livelihood activities; and as a result, community people have started to grow vegetables for home consumption and for sale. These photos from Ratana's household show her transformed well-organised, clean household.

Long-term Impacts: *Ratana* is now an inspiration in her ward/village. *Baru* village now has 42 households (HH), of which eight have been developed to achieve the criteria of three-star model households. Now all women are using toilets during their menstrual period. They have started to consume milk and curd during their menstruation, and to use to bath daily, and they realised that no cow or person has become ill when they adopted this new tradition. The whole community has been gradually changing their behaviour.

The community is sensitized to the benefits of total sanitation and behaviour change. Every household is neat and clean. The RM and Project have been supporting achievement of total sanitation. *Ratana* has set herself a target to make all the community three-star model households. Ratana reflects that social taboos might change if the traditional healers and religious leaders *(Dhami Jhankries)* lead the Total sanitation activities in the community. She believes that the *Baru* neighbourhood has made such strong progress towards total sanitation due to the leadership by a local traditional healer, Mr. *Hariram Parki,* as a chairperson of the *Baru* drinking water scheme. Baru neighbourhood has led the way in their ward. They have formed a ward level Water, Sanitation and Hygiene Coordinating Committee (WWASH-CC) and have a plan to declare the ward to be a 'total sanitised and dignified menstrual management ward' within two years' time. The local level stakeholders are jointly working on sanitation and livelihood activities as a demonstration ward within Shivnath RM.

Lesson Learnt: A dedicated FCHV like Ratana can play a vital role to transform their community – "if their aim is strong no hurdles can't stop them from their mission". Traditional taboos (particularly regarding menstruation) might be changed if the campaign is led by traditional healers.

Bajhang, Chabis Pathibhera: From a Lack of Drinking Water Towards Total Sanitation: The Story of Janpriya Secondary School

Author: Bheshraj Upadhya, GWRO, Chabistpathibhera RM, Bajhang

Introduction: Janpriya Secondary School, located in ward no. 1 Bagad Gaon of Chhabis Pathibhera RM (Bajhang), was suffering from a lack of clean drinking water and poor sanitation. Students (more than 500) and staff had to travel to the Seti River for drinking water as there was no access in the school yard and it was too expensive to buy from a nearby hotel. The rainy season is especially harsh due to increased turbidity in the river and a high danger for flooding. Several girls skipped school during their menstrual periods due to not wanting to wash or change sanitary pads on the exposed riverbanks.

The School Management Committee requested several times for help in improving the drinking water supply. The school arranged for drinking water from the river through HDPE pipes, but they were often not functioning. Existing toilets were not in use due to insufficient water being available and an inadequate number of toilets for the number of students. One user-friendly toilet exists, which includes a hand washing station constructed by RVWRMP, but it can't be used due to a lack of water. With considerable effort, the School Management Committee managed to identify a water source in Thalara-9 by crossing the Seti River but no agency supported them to access this to improve their drinking water supply.

Major Activities: RVWRMP began to support improving the drinking water supply to the school in 2073. Currently, the school is aiming to step up towards total sanitation. Students and staff are very happy and thankful for the improvements. "We never thought that we could overcome this problem." said Padam Bahadur Khadka, the Principal of the school. "Now the school has changed its situation. Thanks to RVWRMP we were able to overcome the problem of poor drinking water supply, and sanitation facilities that were not in use. A gender friendly toilet is now in use for sanitation and pad changing during menstruation."

Long-term Impacts: After the completion of the drinking water supply, all students and staff have access to sufficient clean drinking water in the school yard and the toilets are in use. Jivan Bhandari, a teacher at the school, said that it has been easy to move the school towards total sanitation. *Suresh Hamal* the PE teacher of the school made the following commitment: "The whole school environment will be neat and clean, and the school will achieve all of the total

sanitation indicators. Water problems have been solved so the school will move ahead with total sanitation plans." Travelling to the Seti River for drinking water and open defecation on the riverbanks is a thing of the past. The project has supported the school tremendously and we are breathing happily now.”.

Finally, RVWRMP has provided sufficient water for all toilets and there is a open flow (24 hours) water service. All the school toilets are in use, and hygiene and sanitation education activities are taking the school towards total sanitation. The school families are thankful to the project for supporting clean drinking water, hygiene and sanitation facilities.

Lesson Learnt:

“Where is the need; there is the solution”. “Interest is the mother of invention”.

The above proverbs prove that if the need is declared with honesty, there is always a solution. The hard work of the teachers, staff, the school management team and members of the community led to success in the form of an improved drinking water supply gender friendly toilet facilities for the school. The availability of water, hygiene and sanitation facilities make the school and pupils proud.

Bajhang, Thalara: Health Volunteer Kamala Changed Herself & Society

Author: Chhatra Raj Joshi, GWRO, Thalara RM, Bajhang

Introduction: Kamala Giri, a permanent resident of Serala village in Thalara RM-6, Bajhang, has been working as a Female Community Health Volunteer (FCHV) for more than 10 years. Her family consists of her husband, daughter and son. During her career as an FCHV, she has had to face several challenges such as prejudices due to conservative societal norms.

Before the RVWRMP intervention in this village, women were not allowed to use toilets, public taps or drink/use milk/curd and nutritious food etc. during their menstrual period. Instead they had to relieve themselves and bathe outside, and sleep in cowsheds with the livestock. Kamala wanted to change these societal norms by getting rid of superstitions and widespread conservative attitudes. She wanted to make her village a demonstration village of good practices within Thalara RM of Bajhang.

Major Activities: RVWRMP launched its program in the village and started trainings, seminars and workshops on Menstrual

Hygiene Management (MHM), Dignified Menstruation Management (DMM), and total sanitation. Kamala participated in all of the events and saw this as a golden opportunity to share her views with the whole community. She began to see the issues more clearly and committed to help her community move away from dangerous taboos, conservatism and other disruptive ideologies. This wasn't an easy task. First, she convinced her friends to use the toilets, bathing spots and public taps, as well as consume milk and curd during their period. Many community members responded by saying that she was spoiling the community and God would punish them for trying this new way of life. However, she persevered.

Kamala is not only an FCHV but also a guardian of Serala Village. She started to sweep the village once a week to support fellow female villagers to maintain cleanliness. In the drive for total sanitation they have started to construct utensil dryers, dishwashing stands, solid waste pits and practice farmyard manure management, and are using wastewater and raising mass awareness on personal and environmental sanitation. In each mass and household meeting regular discussions are held on menstrual hygiene, nutrition, and home garden management. All households of the community completed the total sanitation indicators and their behaviour changed with regard to menstruating women. Home garden activities have also been started in the village. Now, the village has been declared a Total Sanitised village and all the villagers are following *Kamala* on total sanitation and other activities.

Long-term Impacts: Today, Serala Village is an example for Thalara RM (Bajhang district) of a total sanitised village. There are no more *Chhaupadi* huts and all of the women can use regular toilets during their menstrual period. No one believes in the old-fashioned past conservative ideas anymore, and there is a clear physical and mental change in the Serala village society. Kamala Giri, a regular FCHV should be credited for this change and she has become a role model of the village and community. It can be said that Kamala changed herself and her society.

Lesson Learnt: If a good, motivated person gets a chance to work for her society and is supported to work through hardship, nothing is impossible. Traditional taboos can be changed with honest leadership and if the community believes in it, success is possible. If someone changes her/himself with conviction, the community will follow.

Bajhang, Thalara: Education on Menstrual Hygiene Management (MHM) and Installation of a Sanitary Pad Dispensing Machine at the Thalara Secondary School

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Introduction: The Thalara Secondary School (MV) Kholi was the first established school of Thalara RM in Bajhang; ward no.8. The students come from wards no. 5, 6, 7 & 8 of Thalara RM. The majority of the school

students are girls. The girls have had difficulties studying during their menstrual period due to the school lacking sufficient sanitation facilities. They often skip school completely during their period as they can't change their sanitary pads or maintain cleanliness in the school.

Major Activities: RVWRMP launched sanitation activities in the school, including: the formation of child clubs, the construction of user-friendly toilets and the installation of a sanitary pad vending machine and an incinerator in the toilet. School girls from the 5th to the 12th class formed groups of five girls with ATM-cards for the vending machines shared between the members. A regular monthly meeting was organized to discuss Menstrual Hygiene Management (MHM), with topics such as pad use, disposal and management as well as other sanitation activities. The focal and health teacher gave lectures on hygiene and sanitation management.

Long-term Impacts: "The attendance rate has increased at the school" said the principal of Thalara Secondary School. All of the girls are able to study throughout the school semester. Every month, the student groups deposit NRs.10 for pad management. At home, the girls are communicating and replicating what they have learned at the school with their families. In addition, hygiene management and personal hygiene at the community level has improved. Now the student groups are organizing monthly meetings with mother's groups for public awareness programs at the community level.

Lesson learnt: The improvements in hygiene and sanitation combined with targeted education has improved girls' school attendance, reduced shyness and improved the overall hygiene and environmental conditions. This scheme shall be replicated in other schools, public places and institutions among others.