

CONTRIBUTION OF MEDEP ON PROMOTION OF HORTICULTURAL MICRO-ENTERPRISES IN NEPAL

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SUMMARY

Micro-Enterprise Development Programme (MEDEP started in 1998 is a joint initiative flagship programme of Government of Nepal (GoN) and the United Nations Development Programme (UNDP) with the financial support of several donor agencies such as Australian Aid (the then AusAID), DFID, CIDA, NZAID, etc. The primary objective of MEDEP is in line with the Government periodic plan's overriding goal of poverty reduction. As of end of December 2013 MEDEP has been able to create more than 57,676 micro-entrepreneurs. Among them 68 percent are Women, 23 percent Dalits, 36 percent Indigenous Nationalities and the rest 41 percent other higher caste. It has been able to create more than 60,000 employment. Among them 55 percent are agro-based enterprises, 18 percent forest based, 13 percent artisan (handicraft) based, 6 percent service based, two percent tourism based and 6 percent others.

With the success of piloting the programme during the first phase (1998 -2003) in 10 districts across the country with the hypothesis that poverty alleviation and livelihoods improvement of poor and excluded are possible using micro-enterprise as the tools. With the success of the programme during the first phase MEDEP's was expanded to other districts and now it is working in 38 districts in diverse agro-ecological areas. Government has internalised this model into their system in the name of Micro-Enterprise Development for Poverty Alleviation (MEDPA) since last four years covering 45 districts and has planned to cover all 75 districts gradually.

Among many successful cases two horticulture based enterprises have been taken here as examples which have shown significant positive results in livelihoods improvement of marginalised and poor farmers converting these farmers into entrepreneurs. The first case is in Strawberry Based Enterprises promoted by MEDEP in Okharpauwa and Kakani VDCs of Nuwakot district. Strawberry is the exotic crop for Nepal and success of commercialisation has been achieved for the first time. The second case is for Green Peas production in high hills of four VDCs of Nuwakot district. The strawberry enterprise promoted by MEDEP started commercialisation in 2005 with 75 strawberry entrepreneurs and by end of 2012 the number increased to 265 households those are directly linked to MEDEP and some more self replicated entrepreneurs. They started the business with 220 Ropani (11 hectare – ha) in 2005 and now area under strawberry has increased to 490 Ropani (24.5 ha). The average landholdings on strawberry farming is 1.85 Ropanis (0.01 ha). There is the increasing trend of production and profit from sales with the increase of number of farmer-entrepreneurs and area under cultivation. In 2005 the green pea pod production was 685 mt that increased to 1,572.5 mt in 2012 earning profit of NRs. 14,615,000 in 2005 and NRs. 43,562,000 respectively. The average production per Ropani is about 5,933 kg and the average income is about NRs. 164,385 and average earning per family is about NRs. 304,112. In 2011/12 the entrepreneurs started exporting strawberries to India and in 2011 the export quantity was about 600 kg worth value of NRs. 117,000 and during the first four months of 2013 it was 72,000 kg value worth NRs. 14,040,000.

Likewise, Green pea pods production and marketing has been commercialised in four VDCs of Nuwakot since 2008 with 20 farmer-entrepreneurs who started Green Pea pods production in 10 Ropani of land and produced 4.8 mt selling it in NRs. 20,000 as off-season production. The number of farmer entrepreneurs, area of cultivation, production and sales value gradually increased from 2008 to 2012 and are still in increasing trend. The number of farmer-entrepreneurs has increased to 900 who are practicing Green Pea Pods production and the area under htis has has jumped to 5,000 Ropanis (250 ha) with production of about 987 mt generating income of NRs. 44,000,000. The average income of farmer is NRs. 48,888 and the average land holding is 5.5 Ropanis. The average yield of Green Pea Pod is 1,097 kg per Ropani. In both cases (Strawberry and Green Pea Pods) significant number of people are employed with in commercial farming. The employability ratios are 1:6.48 (one entrepreneur employs 6.48 person) in Strawberry and 1:6.0 in Green Pea Pod production respectively. This indicates that there is high potentiality of employment generation in rural areas if agriculture is commercialised following entrepreneurial skill development of farmers. In both cases the per capita income of the entrepreneurs have been significantly change. Before MEDEP intervention all of them were living below poverty line and now at least 7,118 people have moved out of poverty trap and their livelihoods have been significantly improved.

BACKGROUND

Micro-Enterprise Development Programme (MEDEP) with main objective of poverty alleviation through micro-enterprise development creating off-farm employment and income opportunities for the rural poor and excluded, initiated based on the goal of government's Ninth Five-Years Plan. The joint venture of Government of Nepal and the United Nations Development Programme (UNDP) was initiated in 1998 as a pilot programme in ten districts of Nepal which advocated promoting self-employment opportunities in the informal sector to reduce the level of poverty amongst those living below the poverty line and socially excluded by engaging them in the micro-enterprise sector. With the success of the piloting phase from 1998 to 2003 for five years the programme was expanded in an additional 15 districts for a period of four year from 2004 to 2007 and the programme has covered 38 districts in its third phase from April 2008 to July 2013. During the period of the first phase to third phase different donors such as Department of International Development (DFID) of the UK Government, Australian Agency for International Development (AusAID), New Zealand Agency for International Development (NZAID), Canadian International Development Agency (CIDA) and Central Queensland University Australia.

Towards the end of second phase (2006-07) Micro-Enterprise Policy was approved by Government of Nepal. National Planning Commission (NPC) prepared "Three Year Interim Plan (TYIP - 2007/08 – 2008/09)" and micro-enterprise development for poverty alleviation got high priority. As a result micro-enterprise sector was included in the TYIP with allocation of budget by Government of Nepal (GON) in the name of "Micro-Enterprise for Poverty Alleviation (MEDPA)". Year 2009/10 was the last year of TYIP and gain NPC developed another TYIP (2010/11 – 2012/13) giving high priority to micro-enterprise sector. GON has replicated MEDPA in 45 districts and they have plan to gradually cover all 75 districts in the next five years.

The goal of MEDEP is to improve the socio-economic conditions of the low-income families and socially excluded of Nepal and develops the capacity of Government of Nepal and other stakeholders to successfully replicate and implement MEDPA. Similarly, the objective of the programme is to diversify the livelihoods and increase the income low-income families through micro-enterprise development and employment generation.

Target Beneficiaries: The primary beneficiaries or target groups of MEDEP are low income families³ living below the poverty line which is basic criterion and based on this income poverty criterion the following are target groups in proportion.

1. Women – 60 percent
2. Unemployed Youths - 60 percent
3. People from socially excluded and hardcore poor communities
 - o Dalits – 30 percent
 - o Indigenous Nationalities (Adibashi-Janajaties) – 40 percent,
 - o Others (higher castes) – 30 percent
 - o Religious Minorities
4. Disaster Affected Families
5. Conflict Affected Families
6. People Living with HIV/AIDS (PLHA) and Injecting Drug Users (IDUs)
7. Poor People of Bhutani Refugee affected communities

District, Rural Market Centres (RMC) and VDCs selection criteria and MEDEP implementation process.
The first step of MEDEP implementation is to select the districts, Rural Market Centres (RMCs) and Village Development Committees (VDCs) within the selected districts.

District Selection: MEDEP applies the following criteria while selecting districts

1. Human Development Index (HDI) or Poverty Index developed by UNDP and GON: Low HDI means high priority of selection
2. Proportion of population of Poor and Socially Excluded: High proportion of population means high priority for selection
3. Road access: At least district Headquarters linked to main highways
4. Women Empowerment Index (WEI): Low WEI means high priority for selection
5. Government priority areas: e.g. Surkhet – Jumla road Corridor
6. Possible synergy with other projects and programme: e.g. presence of UNDP funded projects as well as other donor funded projects to work in partnerships

7. Impact of conflict: High conflict affected means high priority: e.g. Rukum, Rolpa, Salyan, etc.
8. Willingness of District Development Committees (DDCs) to implement MEDEP by sharing matching fund.
9. Avoiding duplication of work in the VDCs.
10. Locally available resources (raw materials) for micro-enterprise development having high market demands.

Based on these criteria the 10 members Project Board represented by different Government Ministries, Private Sectors and donors makes selects the high scoring districts to implement programme and informs District Enterprise Development Committee (DEDC) formed under District Development Committee (DDC), a fourteen member committee that makes final decision of programme implementation in the district.

Natural Resources Potential, Market Demand and Target Group Analysis

The second step of MEDEP implementation is to conduct study on Natural Resource Potential, Market Demands and Target Group Analysis of the newly selected districts. This study will identify the existing natural resources in each VDC of the districts in terms of volume of raw materials production, possibilities of creating number of micro-entrepreneurs or enterprises based on the existing resources. It also looks for readymade demand of markets of the potential products and screens and selects only those products which have market demand. Besides this study also analyses the demographic situation of the VDCs to determine population density of Dalits, Indigenous Nationalities and Ethnic Minorities. MEDEP intervenes in the common area of interface of the three circles (Figure 1). This study/survey report is shared among the members of the District Enterprise Development Committees (DEDC) chaired by DDC Chairperson. Then DEDC approves the recommendation and findings of this study/survey for implementing MEDEP in the district.

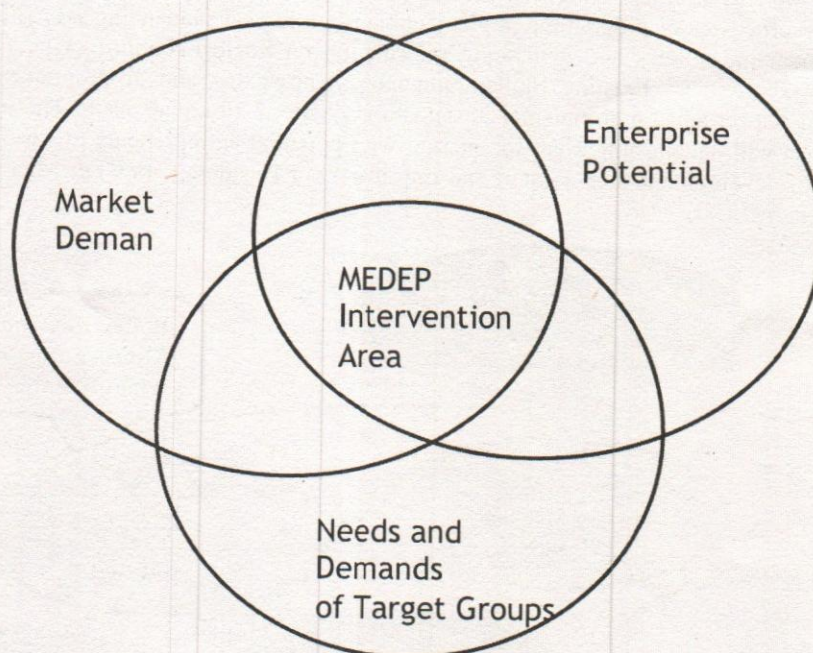


Figure 1: MEDEP intervention area

Selection of Rural Market Centres (RMC): The third step of MEDEP implementation is identification of Rural Market Centre (RMCs) existing in the district based on the above mentioned district survey considering these RMCs as the centre of local economic growth because the marketing of the products services of micro-entrepreneurs takes place first in the RMCs.

Selection of VDC or Municipality: The fourth step of MEDEP implementation is selection of working VDCs or Municipalities in the periphery of RMCs. In the periphery of existing RMCs identified in survey report potential VDCs or Municipalities are selected. The following criteria are applied while selecting working VDC or Municipalities in the periphery of RMCs.

1. VDCs having availability of local resources such as Non Timber Forest Products (NTFPs), Agriculture (Horticulture, Livestock, etc.), minerals deposits, indigenous skills and knowledge of the local community people, existing traditional but appropriate technologies used by the community.
2. VDCs or Municipalities having high density of population of target groups (Poor, Dalits, Indigenous Nationalities, Other Ethnic Minorities, Unemployed Youths, etc.
3. If locally available resources are scarce but the population density of target groups in the VDCs is high then VDCs are selected based on the potential service based or trade based enterprises and employment generation. e.g. in Terai districts mostly RMCs are selected based on the potentiality of service and trade based enterprises. However, in the hills districts VDCs or RMCs are selected based on the availability of locally available resources (raw materials)
4. Possibilities of developing linkages and synergy with other projects and programmes are also considered but during the first and second phase of MEDEP usually the DDCs wanted MEDEP to go to the VDCs where other projects and programmes are not operating.
5. VDCs having no other programmes implementing MEDEP type activities

Deputation of Enterprise Development Facilitator (EDF) in the RMCs: The fifth step of MEDEP implementation of MEDEP is deputation of Enterprise Development Facilitator (EDF). After RMC or VDC selection MEDEP deputs one EDF in each RMC that usually covers two to three VDCs and follows the following implementation process .

Standard Processes of Activity Implementation by Enterprise Development Facilitators (EDFs): EDFs are uniquely trained human resources initially developed by MEDEP and later by the private training institutes affiliated to Council for Technical Education and Vocational Training (CTEVT). The trained staffs are the grassroots level workers in micro-enterprise sector. These staffs are deputed in RMC and follow the following standard six step processes of programme implementation in a logical sequencing way (Figure 2). S/he will be involved in conducting studies and generating information on Socio-Economic Aspect for target selecting, Resources Analysis Aspect, Existing Skills, Indigenous Knowledge and Appropriate Technology Aspect, Market Demand Aspect and Environmental Sustainability Aspects simultaneously. The information generated in these all aspect will equally important for sharing with potential entrepreneurs in various training including entrepreneurship development such as Start and Improve Your Business (SIYB) or Micro-Enterprise Creation and Development (MECD).

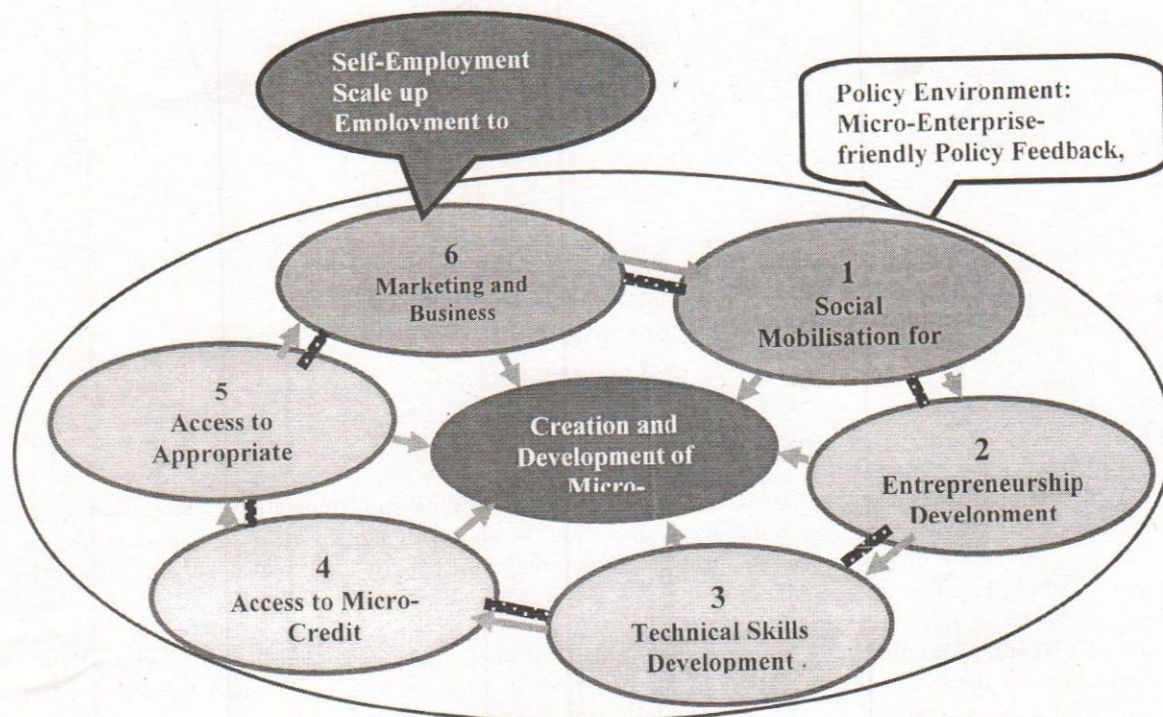


Figure 2: Six step logical sequencing of micro-enterprise development – a proven model in the context of Nepal

Brief Progress of MEDEP: As of March 2013 MEDEP has created about 57,676 micro-entrepreneurs in different sectors with domination of Agro-Based enterprises (55%) followed by Forest Based (18%), Handicraft Based (13%), Service Based (6%), Tourism Based (2%) and Others (6%). Among them 68 percent are Women, 23 percent Dalits, 36 percent Indigenous Nationalities and 41 percent others and the total employment generation is about 60,000 persons. They have generated net profits of NRs. 6.4 billion rupees and their Per Capita Income (PCI) has been increased to NRs. 61,812 (652%) over the base PCI of NRs. 9,480. Two successful cases of horticultural based enterprises are presented in this paper as examples among 55 percent Agro-Based enterprises promoted by MEDEP.

Successful Case 1: Strawberry Enterprise Promotion in Kakani VDC of Nuwakot district

Introduction

Okharpauwa and Kakani VDCs in Nuwakot district, are situated 1800 metre above mean sea level (msl) 30 km northwest of Kathmandu, with the temperature 18 to 25 degrees. The majority of inhabitants of these VDCs are Tamang. These two VDCs are now a day well known by the exotic fruit called Strawberry. These VDCs were previously renowned for Off-Season Vegetable Production mainly Radish crop. Agriculture is the mainstay for livelihoods of the community people of these VDCs. People mainly rely on subsistence agriculture supplemented by animal husbandry. Maize, wheat and radish were their major crops. Due to the lack of sufficient cultivated land; farmers grow crops in marginalized land leading to low production and income. Only about 50 percent of land is irrigated while rest of the land depends on rainfed agriculture. Majority of the people are poor and they are prone to food insecurity, unemployment, lack of technical knowledge and skills on commercialization of agriculture., forcing them to migrate elsewhere looking for work or seek loans from the money lenders at high interest rates.. These conditions make them both poor and vulnerable. People were depressed, had low self esteem and lack the knowledge they need to improve farming practices and living conditions.

MEDEP intervention

MEDEP was implemented in Okharpauwa with a vision to reduce poverty among those poor, socially exclude, disadvantaged people living below the poverty line. MEDEP conducted the resource survey, potential market survey and Participatory Rural Appraisal (PRA) in these VDCs and found the area rich in biodiversity and natural resources and has the greatest possibilities in exploiting of high value products in agricultural. MEDEP realized the potentiality of the strange fruit the strawberry in this area and then started to focus on strawberry and vegetable enterprise by helping the farmers learn how to farm in a more economically, ecologically, commercial and sustainable way with the vision to achieve balanced, sustainable and replicable cropping systems and environment management that would improve soil fertility and enable higher and more secure production. This would lead to improved living standards for low-income households that belong to Okharpauwa VDC.

MEDEP Entrepreneurship Development Approach

MEDEP approach, as it believes on a business approach for income generating rather than a welfare approach. Simply providing skill training or micro credit will only create a cycle of dependency, in which no meaningful and sustainable enterprise development takes place. The conventional approach of enterprise development is mainly focused on skill raining only without considering other supports needed for entrepreneurship development. Therefore, provides a series of comprehensive package of enterprise development services as follows so far to 265 farmer-entrepreneurs:

1. Social mobilization: PRA household survey, group formation
2. Entrepreneurship development training
3. Business plan preparation
4. Technical skill training in cultivating and harvesting the strawberry
5. Management training
6. Integrated pest management training
7. Cooperative formation training
8. Cooperative management training
9. Account keeping training
10. Supported for the linkage of RSRF
11. Grading and packaging training

12. Labelling support
13. Common Facility Centre (CFC) collection centre support along with communities contribution
14. Strawberry processing training
15. Linking to value chain
16. Technology support to the strawberry processing
17. Computer support along with the web site designing and with the software for maintaining cooperative accounting

However, beside the MEDEP target group of more than 265 (Figure 4) other MEDEP non participant farmers in these VDCs also are getting benefited by the intervention of MEDEP owing to horizontal diffusion of these innovative trainings and practices to about 350 farmer-entrepreneurs. The farmers who have been practicing traditional cultivation practices get benefited from the introduction of the commercial cultivation of the strawberry and other off seasonal vegetable training.

Now most of the entrepreneurs are growing strawberry in an average of three to six Ropanies and making it as a sure source of regular income. The entrepreneurs continued to farm peas and other vegetables also, but they realized a 25 percent increase in their income due to strawberry operation. And they planted to expand their farm to four times its current size. The entrepreneurs have been empowered to create their own vision of their future.

About 152 farmer-entrepreneurs are the members of the Nawabihani Farmers Multipurpose Cooperative. Kancha Man Tamang, has taken the lead as chairperson of the Cooperative and the District Micro Entrepreneurs Group Association. There are 15 board members in the Cooperatives which comprise men, women, youth, and the elderly.

1. This cooperative helps members as well as other farmers to grow and market their produces charging just 25 Paisa per Kg that goes into their fund. With the collected money the group has been able to invest Rs 2,70,000 in building a vegetable and strawberry collection centre .
2. The Cooperative provides methods for entrepreneurs to join together in an association, through which the entrepreneurs can acquire a better outcome, typically financial, than by going alone. When two or more agents working together to produce for a result which is not possible to obtain by any of the agents independently. An important strength of a cooperative for the entrepreneurs is that they retain the governance of the association, thereby ensuring they have ultimate ownership and control.
3. MEDEP supported the cooperative to construct a collection centre for the strawberry and other vegetable where the cooperative member contributed a total of 2,70,000 from their saving and the labour forces.
4. The main strength of the cooperative is that it acts as an integrator, collecting the strawberry from members, and after grading, packaging and labelling, deliver it in large aggregated quantities to the market through the marketing channels of cooperative. But an individual entrepreneur does not always have the means of transportation necessary for delivering the produce to the market, or the small volume of his production may put in an unfavourable negotiating position with respect to intermediaries and wholesalers.
5. The cooperative aggregates purchases, storage, and distribution of farm inputs for their members. By taking advantage of volume discounts and utilizing other economies of scale, the cooperative bring down the cost of the inputs that the members purchase from the cooperative, compared with direct purchases from commercial suppliers. This cooperative provides inputs required for agricultural production including seeds, fertilizers and farm machinery.
6. Entrepreneurs are charged relatively high interest rates by commercial banks, or even not available for micro entrepreneurs to access. When providing loans, these banks are often mindful of high transaction cost on small loans, and mostly they are refused for credit altogether due to lack of collateral. To provide a source of credit, entrepreneurs make monthly saving and collect the fund together that can be borrowed by the members. Nawabihani cooperative became the first eligible cooperative in Nuwakot to obtain NRs. 10,00,000 credit facilities at better interest rate of 8 percent from Rural Self Reliance Fund (RSRF) of Nepal Rastra Bank . This approach allowed entrepreneurs to have a more direct access to critical farm inputs, such as fertilizer other chemicals. The loans for these inputs are repaid when the farmer sends produce to the cooperative. Besides, the strawberry entrepreneurs obtained NRs. 50,00,000 credit facilities from ADB/N this year at the interest rate 13%.

Cases of some successful Strawberry Entrepreneurs

The income from the strawberry farming has been a blessing for the entrepreneurs says Chinimaya Lama who had a desire to study but couldn't do so because of poverty. "It wasn't just us; the entire village was suffering

terribly and desperately and needed a way out," she recalls. Chinimaya is successful strawberry entrepreneur and supports the education of three of her brothers. Entrepreneurship development among rural women helps to enhance their personal capabilities and increase decision-making status in the family and society as a whole. Chinimaya also holds an official post in the cooperative and is planning to expand her business to include mushrooms and floriculture, she thanked to MEDEP and says, strawberry villagers now have tin roofs instead of straw ones, proper toilets, TV, money to educate their children and access to modern health services. My family alone saves upto Rs 35,000 a year from this enterprise," says Chinimaya who hopes that someday all the villagers will be.

Dhana Maya Titung widowed of Rajendra Titung is another successful strawberry entrepreneur. After the death of her husband she totally took care of the enterprise of strawberry, and vegetable. She earns 80,000 from strawberry, 3,00,000 from rose enterprise and 1,00,000 from other vegetable annually. Ms Titung says MEDEP has opened our eyes in income generating activities. She says, "My children have benefited, as we now have better food, and it is easier to send my children to school."

She wants to diversify her crops, and has begun to do this by starting floriculture. She again added "MEDEP taught me how to improve my enterprise," and that cooperative "gave me the opportunity to become the secretary and gave me the opportunity of credit. We would never be able to produce and have what we have now, if it weren't help by MEDEP, it is not only my own prosperity that means so much to me. People get inspiration from me. They say, if Dhanamaiya can do it, why not me?' I'm more than a representative of life, hope and dreams."

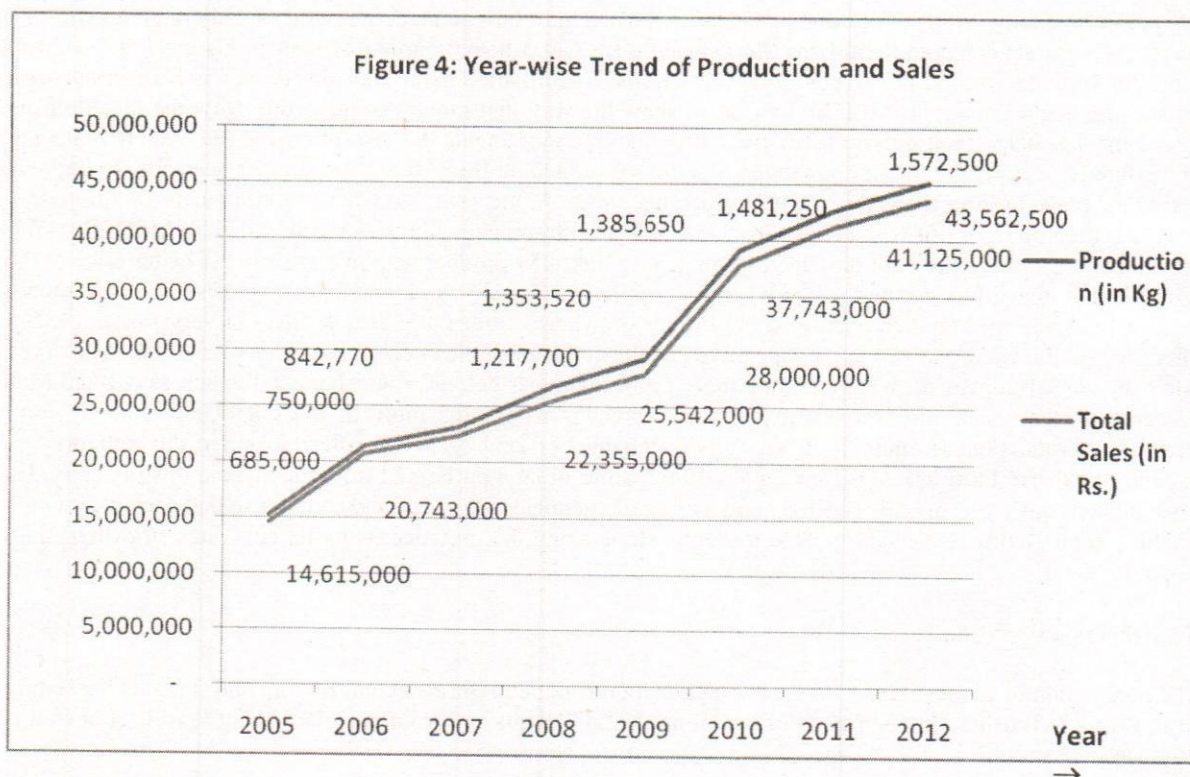
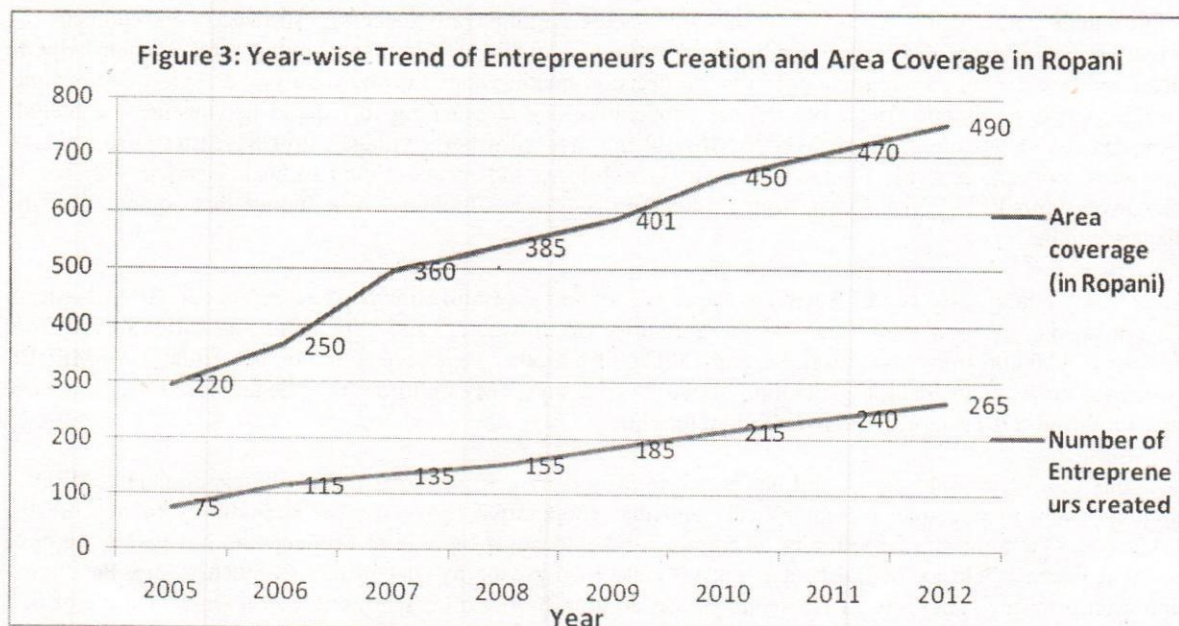
Kanchhaman a father of three children said, earlier he had hard time to meet the family's daily requirements and stationeries for school going children. Mr Tamang once had a heavy burden of loan in his head and went to India for Job and worked in the coal mine but returned with harassment. He said, money is here in our own village, we could not see it. MEDEP help us to show the way that money comes from. Now the income from strawberry has helped not only to meet his family's daily requirements but also improved the overall wellbeing of the family. According to him, due to the new source of income from strawberry, he has been able to improve his house replacing the thatch roof with corrugated sheet. As he said, strawberry entrepreneurs in his group started getting better profit when they participated in the entrepreneurship training provided by MEDEP. After the number of training they not only learned on how to link their product with market, and get better price of the products but they also formed a strawberry entrepreneurs' group and operated enterprise through group. Previously, some middle men used to come to buy strawberry from individual farmers in very low price. But after the training we organized into cooperative and the collector in the cooperative collect it and take to market. After the new arrangement, we are getting more profit than ever before" Kanchhaman Tamang says Indra Man Tamang, another most successful strawberry entrepreneur who earns more than Rs 8,00,000 annually from strawberry production. He purchases one to two Ropanies of land each year after he started this enterprise to expand strawberry farming. Mr. Tamang has 30 Ropanies of land purchased from the income of strawberry. He says, it needs one kg of organic fertilizer and half kg of chemical fertilizer for each plant so that each plant could produce good quality and quantity of strawberry. He is using this practice. Now he cultivates strawberry in 8 Ropani of land.

Strawberry cultivation

The preparation of runner starts in Ashad and plantation is done in Shrawan and Bhadra and starts its harvesting from Kartik to Baishak. In one ropani of land it needs 2500 plants and from one plant about ½ to 1 kg of fruit is produced.

Table 1: Strawberry cultivation area, production and sales value of four years

Year	2007	2008	2011	2012
Area cover	332	335	385	401
Plant number	1,527,850	2,435,400	962,500	1,145,000
Production in mt	842.770	1217.700	481.250	572.500
Income in NRs.	14,615,000	20,743,000	41,125,000	43,562,500



The strawberries which ripen from early winter onwards are graded according to their size in four different grades; A, B, C and D with graded A the largest being sold for up to Rs 250-300 per kg, B graded is at the rate of Rs 150 and C graded at the rate of Rs.100. D graded at the rate of Rs 25.

The production is directly sold to Kathmandu as well as the Departmental stores of Kathmandu, Three star and five star hotels like Hotel Soltee Crown Plaza, Hyatt Regency, Hotel Yak and Yeti, Hotel del Annapurna, etc. and local market of Lagankhel, Jamal, Newroad and Pokhara and it started to export to Calcutta and Patna. There is the demand of 1 mt strawberry per day in the Indian market. But as only 1200 kg of strawberry could harvest per day in this area, only 6 quintal per day of which could export to India and only 6 quintal could fulfil the local demand of Nepal. The total exported quantity this year is 54 quintals till date.

Entrepreneurs were promoted for processing of low grading strawberry (D graded strawberry) which they sale in the price of 25 to 30 Rs per kg. value addition to these D grading strawberry can be done by producing Jam, Jelly, Marmalade.

The entrepreneurs do not take initiation to harvest this grade of strawberry as the labour cost to pick it up takes expenses much more than its actual cost. So they neglect it to harvest. But with the initiation of Programme, the members in the cooperative are encouraged to process this D graded strawberry to make Jam, Jelly, Squash and Marmalade. In 2012 programme supported the cooperative a complete set of technology machine for Jam, Jelly processing. The cooperative collected 10 mt of the D graded strawberry which they treated as wastage and stored 5,000 litter of pulp for the processing throughout the year and could succeed to produce the jam and squash. The value addition to these D graded strawberry has inspired and encouraged the entrepreneurs again more. The interesting thing is that the strawberry of the cost Rs. 25 per kg after processing into jam and could sell in the market at the rate of Rs. 125 per bottle of 500 gram, Which again opened the eyes of entrepreneurs and are now quite inspired to make the jam . They found its market in Dhulikhel hotel Association, Kathmandu and in other local market.

MEDEP supported field-level propagation of strawberry runner. Considering the growing demand of strawberry in the national as well as international market, and the best practice of strawberry farming in Okharpauwa Programme take the initiation to expand the strawberry farming in the similar geographical and climatic areas of Rasuwa, Myagdi, Parbat and Dolkha also. So a total of one lakh strawberry plants were collected form the Nawabihani Cooperative and distributed to cooperative of Myagdy, Parbrt and Rasuwa for the replication of this strawberry farming ie for the expansion of the strawberry production in other districts also to fulfil the growing demand of national and international market.

Strawberry has been the main production as cash crop in this area. Including strawberry other cash crops are also grown. Green Peas, Radish, tomato, apricot, Rose, Ground apple.....etc are cash crops. Among of them strawberry has taken place most profitable crop and it is famous and was expanded. This strange fruit strawberry have changed their life.

The impacts observed in these VDCs:

1. In 2005 most of the families purchased only basic necessities such as cooking pots and Now in 2012 increased income resulted in increased in family purchasing power of materials for house repairs, radio cassette, television, motorcycle animals etc.
2. Greater understanding of the need of education: school enrolment rose form 20 to 250 students. Grade 4 to 8 introduced 50 students went to secondary school.
3. Improvement health status: the incidence of diseases dropped dramatically with the introduction of potable water. Greater income resulted in more people willing to see a doctor more frequently. Moderate malnutrition cases dropped.
4. Improved road condition: There was increased demand of transportation. More farms produced were being sent to market and entrepreneurs were more able to pay transportation cost. The demand for better road increased and finally resulted in government laying road.
5. Increased awareness on environmental protection: entrepreneurs faced weeds, erosion and nutrient deficiency of soil and depleted water quantity and quality. With the introduction of more diverse crop and livestock varieties and counter farming and awareness from IPM training the threat to environment has been averted. Entrepreneurs have been aware that it makes economic sense to look after soil water and farmland. MEDEP still have to improve to make with the development of comprehensive environmental plan for all.
6. Increased participation of women: before MEDEP intervention women were not given the chance to make decision in community. Women now actively participate in the MEG, MEGA and Cooperative comprising more than 80% attendance at meeting. However little has been done to lighten the burden women carry as well as increased responsibility in the community. They still required conducting domestic chores, care of their children, work on farm and budget the family income.
7. In these VDC entrepreneurs have been hugely successful in rising themselves out of poverty with the help of Programme they have been given and lift up out of poverty and with a new sense of pride are looking forwards to their future.

MEDEP supported a set of computer to the cooperative with the vision that the cooperative could have been able to put the necessary information of their agricultural products in the web site including the production, sales, credit, market demand, their production capacity, resources available in these VDCs etc. Which enable

both buyers and sellers and producers to have timely information on the products and other resources. Again they can maintain their saving credit records in the cooperative software. Now they have started to do so.

Thus Micro enterprises not only enhance national productivity, generate employment but also help to develop economic independence, personal and social capabilities among rural poor. Following are some of the personal and social capabilities, which were developed as result of taking up enterprise among poor.

1. Economic empowerment
2. Improved standard of living
3. Self confidence.
4. Increased social interaction
5. Increased participation level in meeting.
6. Leadership development and improvement in leadership qualities
7. Involvement in solving problems related to women and community
8. Decision making capacity in family and community

Economic empowerment of women and people living below poverty line by micro entrepreneurship led to the empowerment of these people in many things such as socio-economic opportunity, social equality, personal right, family development, market development, community development and at last the nation development

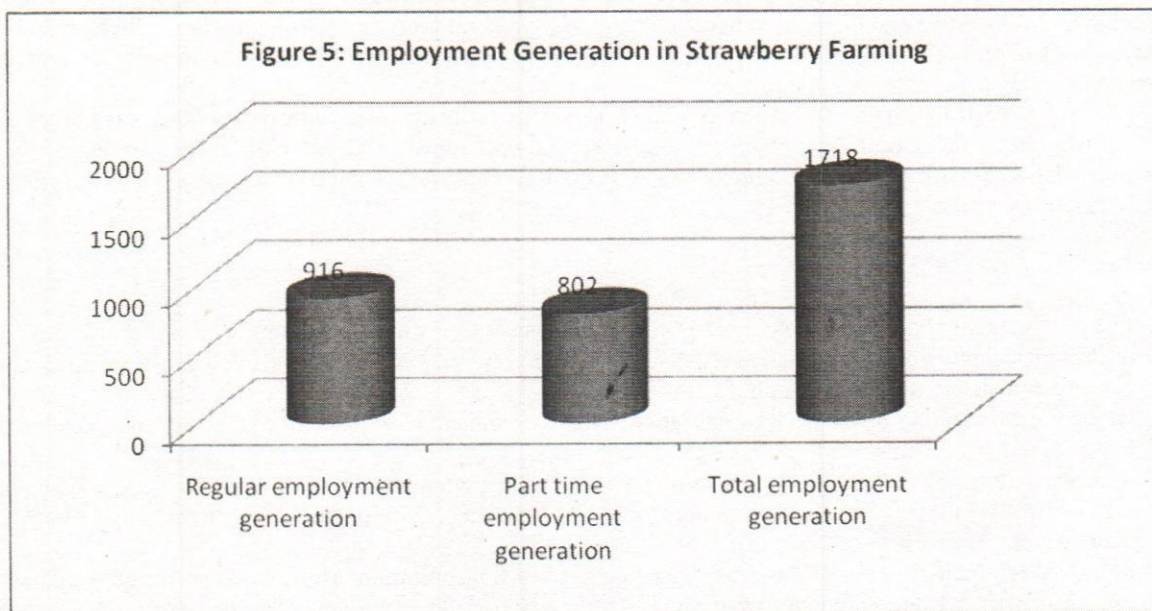


Figure 6: Export Quantity and Export Value of Strawberry

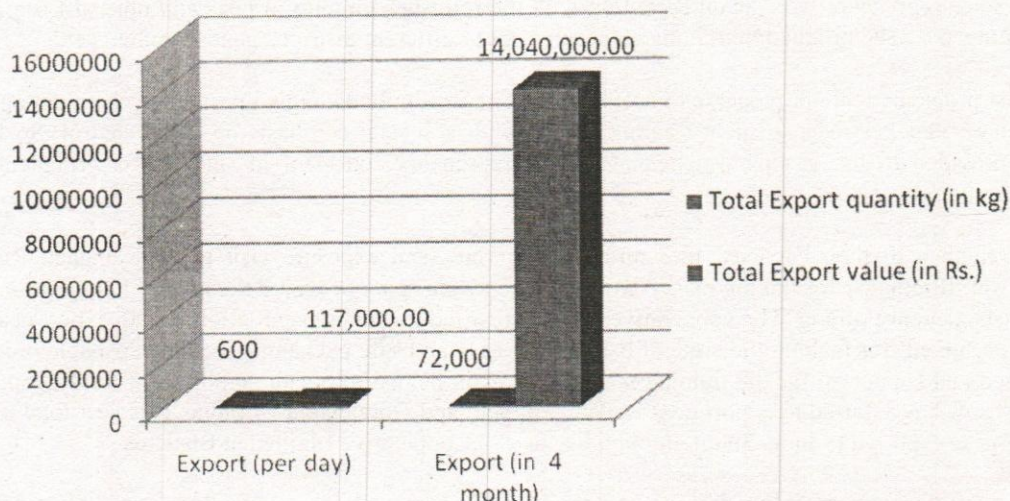
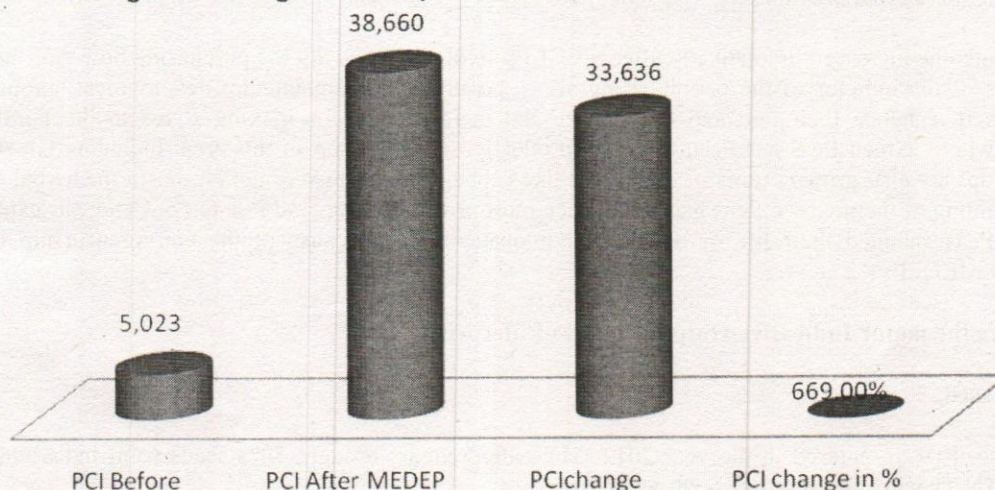


Figure 7: Change in Par Capita Income (PCI) in Rs. of Entrepreneurs



Successful Case 2: Green Peas Enterprise Promotion in some VDCs of Nuwakot district

In 2008 MEDEP started to implement its activities in these VDCs with a vision to reduce poverty amongst those poor and socially excluded living below the poverty line by helping the farmers learn how to farm more economically and ecologically sustainable way. Kaule and Bhalche as a micro-enterprise village has been a unique example of how rural enterprises can be promoted to address the economic needs of the rural population and how local labour could be tapped to build local markets and economies, channeling knowledge and resources into areas which can contribute directly in to poverty reduction and employment generation.

Programme's correct analysis and assessment of resource potentials in Kaule, Bhalche, Salme and Phikure and the evaluation of entrepreneurial skills of the people in these areas is the key factor which has helped the village to convert into micro enterprise villages. In addition, the comprehensive package of enterprise development services such as business counselling, market linkages and networks, introduction of appropriate rural technologies to the poor and instituting innovative business ideas by the programme are the basis for the thriving micro-enterprise in these VDCs. MEDEP provided various trainings such as the entrepreneurship development training, skill training on off seasonal vegetable training, gender development training, accounting training, cooperative training and market linkage training and business counselling and business plan preparation, etc.

However beside the MEDEP target group more than 400 other MEDEP non participant farmers in these VDCs also get benefited by the intervention of MEDEP owing to horizontal diffusion of these innovative trainings

and practices. The farmers who have been practicing traditional cultivation practices get benefited from the introduction of the commercial cultivation of the peas and other off seasonal vegetable training. Later on 2010 and 2011 these entrepreneurs were again scaled up with the refresher training in peas and other off seasonal vegetable training, pea seed production training, exposure visit to different districts, gender training, etc.

To address pest problems without recourse to costly and environmentally damaging pesticides, the main option applied was Integrated Pest Management training (IPM) with a special emphasis on weed control. So IPM training was provided to the groups which made the entrepreneurs confident in safe and environmentally sustainable farming practice.

In 2012 to strengthen of their capacity, the entrepreneurs were send exposure visit to Narayanghat, Roxal, Rupadia, Butwal, Biratnagar for linking market to India. They were again provided the market linkage training, cooperative management training. The cooperatives were supported for the transportation cost to export peas to India and the promoted for making the crate of bamboo for easy and safe packaging of the perishable product peas and trained and supported for the training material. It again helped to create employment for 4 people in Bhalche. They now have started to export peas to Patna, Raxoul and Gorakhpur of India. This year total of 90 Metric tone of peas exported to India 30 mt through Shrijanshil Cooperative Limited at Bhalche.

Later as a support for strengthening the cooperative MEDEP provided the cooperative a complete set of Computer and its accessories along with the software and website with the vision that the cooperative could put all the information of peas and vegetable, their status , production, costs, resources etc in the website so that they could further expand their business even to national as well in international market again they could have more information about international market. The web site is (www.greenpeasnepal.com)

Thus family income increased dramatically after MEDEPs involvement as did the purchasing power of families. Which is one of the indicator of the people rising above poverty: Entrepreneurship development among rural women helps to enhance their personal capabilities and increase decision-making status in the family and society as a whole. Green Peas has been the main production as cash crop in this area. Including Green Peas other cash crops are also grown., tomato, vegetables like cabbage, Cauliflower, and Nirmashi the herbal etc are cultivated. Among of them Green Peas has taken place most profitable crop and it is famous and was expanded. This Green Peas changed their life of people in Satdobate. Its all because of the entrepreneurship culture developed by MEDEP.

Following are the major Indicative Outputs of Peas Enterprise:

Seeds purchased:

30 Tons of seeds were entered in the year 2012. The entrepreneurs brought 50% seeds from India and some from the SEAN Thankot. Varieties of seeds and cost are

1. Ankur (NRs. 100/kg) which was RS 160 last year
2. Arkel (NRs. 100/kg) which was RS 160 last year
3. Sikkim Local Nepali variety (NRs. 100/kg) which was NRs. 200 last year
4. Sarahi NRs 100 which was used for seed production

Basically entrepreneurs felt more comfortable with the Arkel variety of seeds as its production starts within 90 days and meets the high market price of Dashain and Tihar and Off season time of India And in case of Ankur and Sikkim Local variety, production is comparatively high, but its production starts only after 4 month of period that is after 120 days and this could not meet the high price market of Dashain Tihar and off season of India. Again the harvesting to be done repeatedly and frequently in certain interval of time. So the farmers do not feel comfort in these varieties.

Entrepreneurs brought the seeds form India at the rate of IC 60 relatively low price than last year which was 90 IC (144 NRs.) and sold it to the farmers at the rate of 100 NRs. The total quantity of pea seeds used this year is 30 mt (20 mt imported from India and other locally bought from SEAN, Thankot) (and 20 mt used for the first season in Shrawan to Kartik and 10 mt for Mangsir to Magh for second lot and for seed production)

Production and marketing

Total number of peas growing farmers in these four VDCs have increased to 900. Each individual entrepreneur produced minimum of 2000 to 4000 kgs of peas in about 3 to 10 Ropani of land. It was found that: The first lot production: (Ashad – Bhadra) (Figure 8, 9, 10,11 and 12)

Figure 8: Year Wise Trend of Peas Production (in KG)

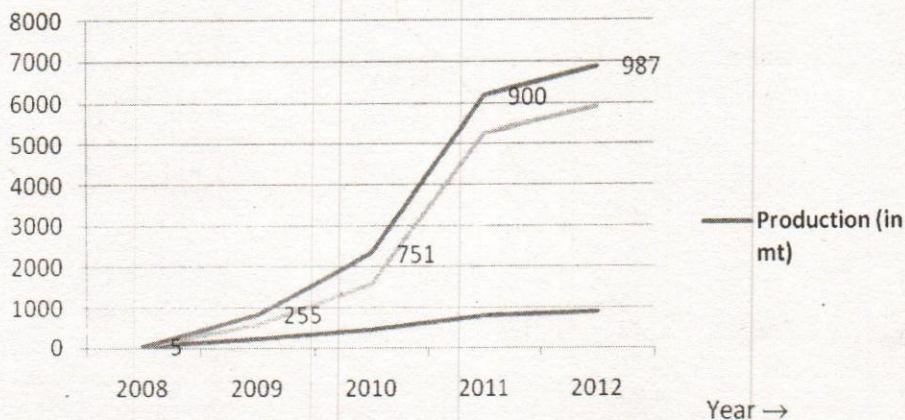


Figure 9: Year Wise Trend of Peas Production (in KG)

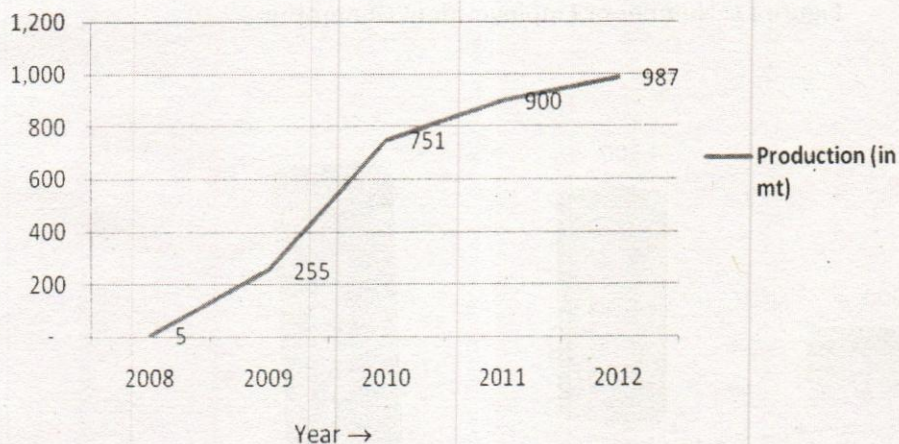


Figure 10: Year-wise Trend of Peas Sales (in RS.)

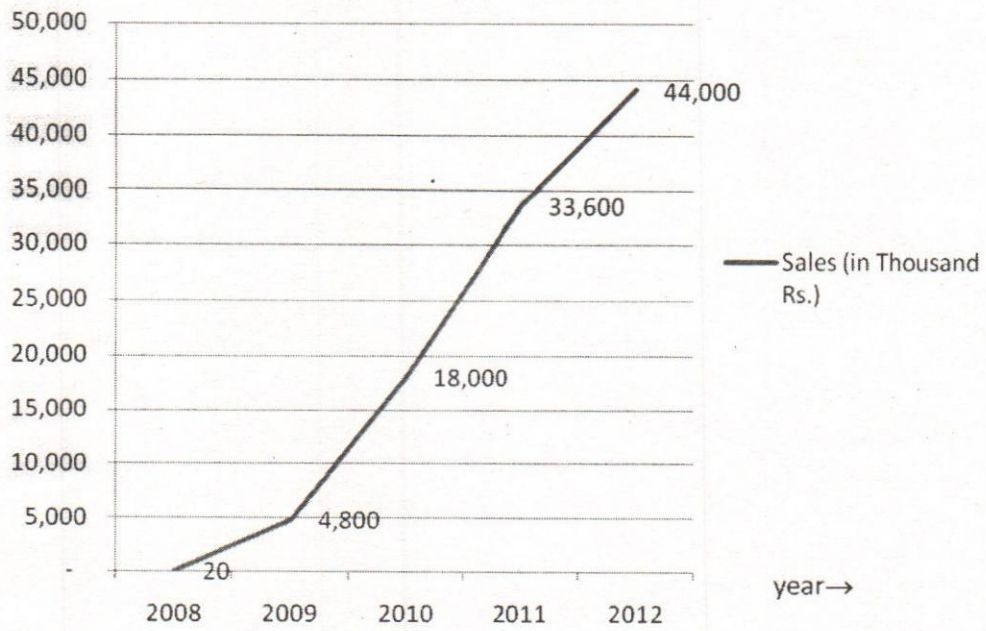


Figure 11: Number of Employment Generation

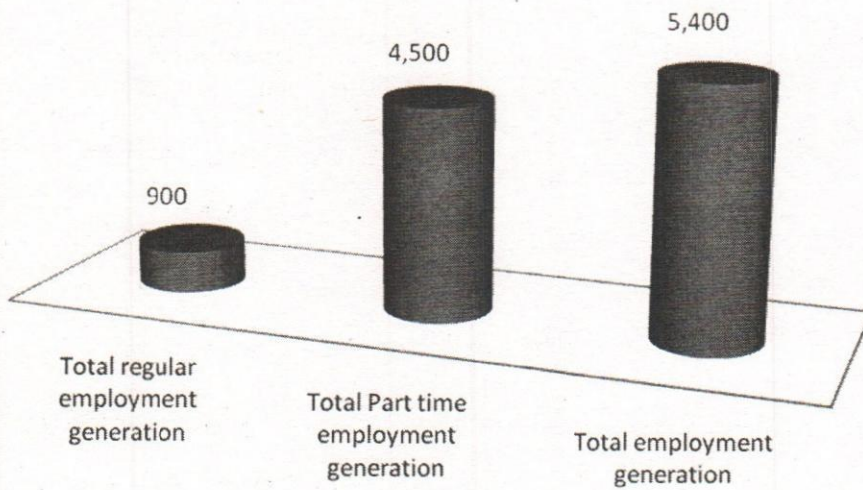
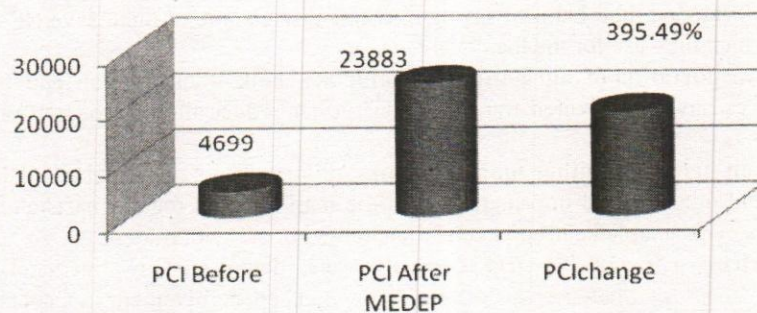


Figure 12: Change in Per Capita Income (PCI) in Rs. of Entrepreneurs



Cooperative at Kaule and Bhalche

More importantly, the programme organized these entrepreneurs into cooperatives and redefined their role from being merely recipients and beneficiaries to actors who influence and provide key inputs to the development activities.

Shree Singla Multi Cooperative Limited at Kaule, Subha Bihani Cooperative Limited at Kaule and Shrijanshil Cooperative Limited at Bhalche were the three cooperatives established with the involvement of Micro entrepreneurs and other farmers at Kaule and Bhalche Nuwakot. They collectively sale their product through cooperative to the Trisuli and Kalimati, Kathmandu and then to India basically Patna, Gorakhpur and Rakshul. The cooperative charges 3% of the total cost for supporting the marketing process.

By joining a cooperative, entrepreneurs and other community could have better positioning power in marketing. For example, if a market needs a certain volume of a product, entrepreneurs need to organize themselves to collect this volume. Normally, the market is not willing to collect the product from each individual due to related costs. Traders prefer to deal with one collector or a collection centre to reduce the cost. Realizing the importance of group work, other farmers also joined the cooperative. Now the Shree Singla Multi Cooperative Limited at Kaule has 460 shareholders.

Realizing their need and on the basis of the demand of the hard core poor the programme has supported a common facility centre at Bhalche for the collective sale of peas and vegetable through cooperative and it was handed over to cooperative. This common facility center benefitted the entrepreneurs and other farmers in safely collection and regular market and time saving which made the entrepreneurs very comfort for marketing and the felt no tension in the price negotiation of the product and again made them bankable.

Majority of the entrepreneurs have earned more than 1, 00,000 NRs. by commercial cultivation of peas and off seasonal vegetable farming form 2 to 8 ropanies of land and therefore by this result they realized peas cultivation could have been one of the leading income generating activities for earning livelihood amount of money and decreasing their level of poverty. The entrepreneurs are highly motivated and have revealed interest to give continuity to the commercial peas farming and expanding and growing their production. Not only the entrepreneurs but the neighbouring farmers are also highly motivated by seeing the output of the pea farming and off seasonal vegetable farming and involved in the commercial farming.

Entrepreneurs have obtained a number of advantages and opportunities organizing into the cooperatives

1. **Increased bargaining power of entrepreneurs** – Often an individual entrepreneur had to face a well-organized group of clever intermediaries. Entrepreneurs after organized into cooperatives are less prone to exploitation.
2. **Direct marketing** – cooperatives could skip intermediaries and entered into direct relations with final buyers. By this they could eliminate exploiters and ensure fair prices.

3. **Provision of credit** – Shree Singla Multi Cooperative Limited at Kaule was able to received the 19,00,000 of loan from RRF and could provide credit to the members, with the interest rate of 12%. And prevented them from having to sell their produce immediately after harvesting and to enable them to purchase seeds. This ensured better returns to the entrepreneurs.
4. **Saving** - Entrepreneurs developed their habit of saving in cooperative (some of them save NRs 200/month and some NRS 50 /day)which they use for the loan evolvment.
5. **Easier and cheaper transportation of agricultural products** – bulk transportation and the fact that sometimes the cooperatives have their haired transportation further reduce the cost of transporting their products to the market.
6. **Up-to-date information on prices and other market factors** – Entrepreneurs could obtain data on market prices, demand, supply and other related information from the markets on a regular basis and could plan their activities accordingly. This enabled entrepreneurs to better negotiate with traders.
7. **Influencing market prices** –previously, market prices were determined by mediators and, and entrepreneurs were likely to accept whatever was offered to them. Their involvement in Cooperatives have changed the game. Now they could bargain and achieve better prices for their product.
8. **Boosting self-confidence** – Cooperative could inspired a spirit of self-confidence and collective action among the entrepreneurs and other farmers, without which their agricultural development wouldn't be possible.

The Outcomes of Programme:

1. Increased social harmony and less conflict among people are demonstrated by most of the groups mixing with different ethnicities (Dalit, Janajati, and Other Casts) and working together to promote their livelihoods.
2. An institutional market network has been established comprised of cooperatives rather than individual entrepreneurs and traders.
3. The most disadvantaged people in the village – Women, Hardcore Poor and Dalits and Janjati Communities – have been socially and economically empowered.
4. And all the disease problem faced last year were solved after the series of training like IPM training and other vegetable refresher training etc.
5. Vegetable that farmers used to produce only for home consumption have now been replaced by commercial off seasonal vegetable production.
6. Entrepreneurs are organized into different cooperatives and could have more market and other information and collective marketing through common facility centre.
7. Cooperative was able to received the 19,00000 of loan from Rural Self Reliance Fund (RSRF) of Nepal Rastra Bank (NRB) and could provide loan to the members at the interest rate of 12%.
8. Entrepreneurs developed their habit of saving (some of them save NRs 200/month and some NRS 50 /day)
9. Entrepreneurs have been able to export 90 Mt of peas production to India through cooperative which promoted to expand their product to meet the expanding demand of national as well as export market. And again they found the comparatively better price than last year.

CONCLUSION

Thus Programme's intervention in these areas enhanced capacity to solve complex development problems and to provide options to hard core poor, rural women, and other vulnerable groups. This enterprise has proven that if more such agro based high value production could be identified and enterprises are established in cluster basis then the socio-economic condition of the hardcore poor can be substantially improved within short period of time. In such areas the emphasis to be given to the maximizing returns to land, increasing the amount of land available for cultivation each year particularly through converting abundantly available labour into increased output. It is also important, to the extent that markets allow, encouraging a shift out of maize and other low-value crops towards high-value crops such as off seasonal vegetables, cardamom, peas, etc.

Thus Low maize and other crops prices can be addressed by the promotion of off-farm and high value production activities with strong linkages to agriculture. Entrepreneurs' and farmers problems of inadequate access to input supply, market and other information, credit and marketing services can be minimized by promoting group activities such as bulk buying, joint marketing, as well as through promotion of cooperative, and linkage to the rural micro-finance institutions capable of meeting their' seasonal credit needs . Problems of access to good quality seeds can be addressed by promoting seeds production.