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AGRICULTURE MARKETING: A SUSTAINABLE APPROACH FOR AGRICULTURE COOPERATIVES IN THE FAR WESTERN REGION OF NEPAL

Thesis
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Nepal is a developing country with the resources and prospects to flourish in the agricultural sector. Agriculture contributes the largest share of the GDP in Nepal. The effective production and marketing of agricultural products in the various regions of Nepal could bring significant changes to the economic development of the nation. To develop the agricultural sector, many foreign nations and their development agencies are assisting Nepal in various development programs. One of them is the Rural Village Water Resource Management Project (RVWRMP) in the Far Western Region. The project is jointly supported by the Ministry of Foreign Affairs, Finland and the Government of Nepal. The project primarily focuses on the Water, Sanitation and Hygiene (WASH) sectors, followed by Livelihood and Microfinance.

This study was carried out with the motive of promoting the rural livelihood of agriculture cooperatives and local farmers through the marketing of agricultural products. For this study, three cooperatives in three different Village Development Committees of the Far Western Region of Nepal were selected. The cooperatives were formed by RVWRMP in Phase I. The second phase of the project provides financial and technical support to these cooperatives. This research uses a qualitative method of data collection. The results and outcomes presented in the study are based on the information obtained from the collected data.

After analyzing the prospects and problems in these cooperatives, the author proposed an implementation plan and agricultural marketing model for cooperatives to ensure their self-sustainability in the future. Furthermore, the author assumed that this implementation plan could develop the value chain among local farmers, communities and cooperatives through the medium of agricultural product marketing.
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CO</td>
<td>Community Organization</td>
</tr>
<tr>
<td>COOP</td>
<td>Cooperatives</td>
</tr>
<tr>
<td>DDC</td>
<td>District Development Committee</td>
</tr>
<tr>
<td>DoLIDAR</td>
<td>Department of Local Infrastructure Development and Agricultural Roads</td>
</tr>
<tr>
<td>DWRDF</td>
<td>District Water Resources Development Fund</td>
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<tr>
<td>GDI</td>
<td>Gender Development Index</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GESI</td>
<td>Gender and Social Inclusion</td>
</tr>
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<td>GON</td>
<td>Government of Nepal</td>
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<tr>
<td>HDI</td>
<td>Human Development Index</td>
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<td>ICA</td>
<td>International Cooperative Alliance</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Aid</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>INGO</td>
<td>International Non-Government Organization</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organization</td>
</tr>
<tr>
<td>NPC</td>
<td>National Planning Commission</td>
</tr>
<tr>
<td>NPR (Rs)</td>
<td>Nepalese Rupees (Currency)</td>
</tr>
<tr>
<td>RVWRMP</td>
<td>Rural Village Water Resources Management Project</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>UN</td>
<td>United Nation</td>
</tr>
<tr>
<td>UNFCO</td>
<td>United Nation Field Coordination Office</td>
</tr>
<tr>
<td>VDC</td>
<td>Village Development Committee</td>
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</table>
1 INTRODUCTION

1.1 Background

Nepal is a developing country possessing great prospects in agriculture, a sector which shares a significant portion of the GDP in Nepal. The GDP composition of Nepal comprises three major sectors: agriculture 36.8%, industries 14.5% and services 48.7% (CIA Fact book 2013). The annual growth rate of the agricultural sector has gradually increased from 3.3% in early 2000 to 5% in 2012 (World Bank 2012). Depending on the geographical location, there are various product possibilities such as rice, pulses, wheat, corn, sugarcane, poultry and animal husbandry, chili, ginger and other medicinal plants. The later part of this study showcases two different geographical locations and the variation in crops and productivity.

The effective production and marketing of these agriculture products could bring significant change in economy from the individual household to the macro level. The lack of proper infrastructure and technology in the hilly and mountainous regions of Nepal is affecting the agriculture production in terms of input supply regarding e.g. agriculture tools, fertilizer etc. Even though the production is done, the goods fail to reach the market. Regardless of geography, the social and political factors and moreover the lack of knowledge or information flow between the producer and market unit are also affecting the marketing of products.

The government of Nepal single handily cannot solve this issue; it requires foreign partner nations and many other development organizations to collaborate in various sectors of development. One of the development projects is the Rural Village Water Resources Management Project - Phase II (RVWRMP - II), which is a bilateral project between the Government of Nepal and the Government of Finland, which has been working in Far Western Nepal since 2006. The major focuses of this project are: (1) Water, Sanitation and Hygiene, (2) Livelihood and Microfinance (Cooperatives), and (3) Gender and Social Inclusion and other relevant socio-economic problems.

This study is based on the work of RVWRMP II. The study focuses on the livelihood and micro-financial part of the project activities. Sustainability is a challenge and mile-
stone for many development projects in the world, and those in Nepal are no different. The idea of the development of microfinance or a cooperative is an attempt to make the outcomes of project sustainable. This study attempts to develop a value chain between agriculture products and marketing through cooperatives in three rural villages of the Far Western Region, which will benefit both agriculture cooperatives and the farmers or members of cooperatives to improve their quality of life, rural livelihoods, business opportunities, and provide sustainable sources of income.

1.2 Aim of the study

The overall aim of this study is to find a relevant and sustainable approach for agricultural marketing through cooperatives. In order to develop the new approach, it is essential to analyze the existing market and marketing scenarios of cooperatives in the respective region. This study describes the present operating status of cooperatives to explore the feasibility of carrying out marketing activities. Furthermore, with the help of a value chain analysis, this study explores the problems and possibilities of agricultural product marketing in rural areas. The study presents a marketing model for cooperatives to initiate agricultural product marketing activities through cooperatives.

1.3 Methodology

A qualitative method of data collection is used in this study. This method is used to understand and get insight information on rural communities regarding inhabitants’ everyday lives, activities, problems etc. In order to implement this method, there was no other solution then being in their community. The study was carried out in project areas under the supervision of project staff along with the required support from the staff. The author spent three months analyzing the situation of cooperatives and the overall agriculture market in three different villages. Before going to the village, both primary data and secondary data were collected from the RVWRMP II office and the staff to get some background information on the villages and the trends of the cooperatives.
Three sets of target interviewees made up the data collection, i.e. the cooperatives, local farmers and RVWRMP II staff. For each target group there were three different kinds of question model or topics of discussion mainly focusing on this question, here posed to a group: what can the cooperative do to help your agriculture product flourish and reach the market?

The data collection started immediately after reaching the village in the form of informal communication. The main sources of information were the managers of the cooperatives who were providing facts and problems of the villages. Along with the manager, the local people who are members of cooperatives also ease the data collection by expressing their views regarding the operation of cooperatives, RVWRMP II, and other organizations in the village.

During the stay, the author visited different farms of the farmers, especially who does the farming professionally, and got answers to questions such as:

- where do they sell the products,
- how do they transport the goods,
- who are the competitors,
- what is the profit margin,
- is the cooperative the assisting them with selling,
- and what is their expectation with cooperatives?

The author utilized each and every chance to get the insights from the community, for instance during the board meeting of cooperatives, during training and in informal situations.

The local government representatives were interviewed in order to know about the government plan on assisting the village in terms of livelihood activities and agricultural sector development. The field staffs who are working in the village on behalf of RVWRMP II were interviewed, too.

This project organizes many workshop and training sessions for the village people, and the author got an opportunity to participate in one of them. The participation in a workshop in which five cooperatives were presented gave the author valuable insight into the operations, problems, and action plan for the years to come. This workshop was facili-
tated by the experts from RVWRMP II and a representative from a small farmer development bank. Here, again the author grabbed the chance to explore the expert views on the cooperatives and their future actions.

1.4 Outline of the study

The first two chapters are dedicated to providing the background, objectives, methodologies, and brief information on the country profile. The Far Western Region of Nepal is focused on along with a country overview where the study was implemented. The third chapter introduces the need of development project and gives the insight into the RVWRMP II intervention and operation in that Region.

The theoretical foundation for this study is provided in Chapter 4. The concept of cooperatives, their history and importance of in development, their problems, and sustainability measures are all discussed in the literature review part. Value chain approach is also discussed to support the research.

Chapter 5 explores the major findings during the research. This chapter explains the current situation of cooperatives, present the major activities by cooperatives, and highlight the problems/prospects regarding the potential of agricultural marketing through cooperatives.

Chapter 6 presents an implementation plan for cooperatives in order to carry out the marketing activities of local agricultural products. Chapter 7 present the discussion based on the finding and finally, conclusions are made.
2 OVERVIEW OF NEPAL

Nepal is a small country lying between two giant nations, China and India. Nepal has three geographical divisions with five development regions. The geographic divisions are the Mountain, Hill and Terai (plain) Regions and the five development regions are Eastern, Central, Western, Mid-Western, and Far Western. The five development regions are further divided into 14 administrative zones and 75 districts. The districts are further divided into municipalities and village development committees (VDCs).

![Figure 1. Map of Nepal with the Far-Western Region shaded (Source: UNFCO 2011).](image)

Nepal is a landlocked country with an area of 147,181 sq km. Among the three geographical regions, the Mountain Region is the least developed region in terms of socio-economic development. The infrastructures are limited or fail to reach the people because of a difficult geographic outlay. The Hill Region is better than the Mountain Region in this respect, and Terai is considered to be the most developed one. It is often termed “the grain house of Nepal”. This region provides most of the food items in Ne-
Pal. Terai has better possibilities for agriculture because of its fertile soil, the availability of water and irrigation facilities, better infrastructure, and it also shares a long border with India. Even though Terai is vital for the country’s GDP, it still faces a lot of the same socio-economic problems found in the other parts of the country, such as poverty, a lack of infrastructure, illiteracy, water and sanitation problems, health issues, superstition, unemployment, migration, and political conflicts. (RVWRMP Project document 2011; UNFCO 2011).

2.1 Socio-Economic conditions in Nepal

As of 2014, Nepal is home to 31 million people with an annual population growth rate of 1.82%. Nepal is a multicultural and multilingual country consisting of 125 ethnic groups and 123 languages spoken by those groups; the official language remains Nepali. Urban dwellers constitute 17% of the total population with a 3.62% annual rate of growth. Kathmandu is the most populated city with 1.1 million people. The outflow of people to other countries is trending in Nepal, with a migration rate of 3.71 migrants per 1,000 people. Along with migration, a certain percentage of people leave the country for employment, education, or other reasons. Foreign employment is good for the country economy because of good remittances, but in the long run it will affect the country with a labor force deficiency. The literacy rate is 65.9% (male-75.1% and female-57.4%, urban areas-82.2% and rural-62.5%). (CBS 2011; CIA 2014.)

The major source of country’s GDP is agriculture. The GDP (official exchange rate) amounted to $19 billion in 2012 (World Bank 2014). The growth rate of GDP was 4.9% in 2012 and it declined to 3.6% in 2013. According to the Nepal living standard survey, a quarter of country’s population (25.2%) lives below the poverty line (urban poverty accounts for 15.5% and rural 27.4%). The GDP per capita income is $1500 (CIA 2014). The unemployment rate was 46% in 2008. The agriculture sector employs 75% of the labor force. The inequality measure in income distribution (Gini coefficient) is equivalent to 0.328. (CBS 2011.)

The major export commodities are clothing, carpet, textiles, pashmina, jute items, and medicinal herbs, while Nepal’s imports include petroleum products, machinery and equipment, gold, electrical goods, and medicine. India is the biggest partner of Nepal in
both imports and exports, and the other main trade partners are China, South Korea, Bangladesh, and Italy. Nepal is suffering from a trade deficit. In 2013, the total amount of goods exported was $1.6 billion, whereas the amount of imported goods was $6.3 billion. The trade deficit is balanced through remittances, external debts, and grants. Nepal has an external debt of $3.8 billion as of 2012 (see Appendix 4). (World Bank, 2012)

2.2 The current situation in Far Western Nepal

Among the five development regions in Nepal, the Far Western part is considered the least developed with complex socio-economic structures. This region (Figure 1) comprises nine districts, namely Kailali, Dadeldhura, Doti, Achham, Bajura, Bajhang, Darchula, Baitadi, and Kanchanpur. Out of these districts, Kailali and Kanchanpur are located mostly in the Terai belt with some hilly areas, and the remaining districts are either hilly or mountainous regions. Most of the villages in these districts are remote and have very limited access to basic services because of the difficult topography. The western and southern parts of this region are bordered by India and the northern part by Tibet and China. The people living in hills and Terai region tend to have higher mobility to India when it comes to various aspects such as shopping, employment, education, healthcare etc. The main market areas for all these districts are Mahendranagar (Kanchanpur), Dhangadi (Kailali), and Dadeldhura. The major sources of income are remittance, agriculture, livestock, forest products, and high value herbal collections. All the small and cottage industries, professional seasonal and off seasonal vegetable and crop farming etc. are limited to mostly the Terai region. (UNFCO 2011.)

Worldwide, Nepal ranks 145th in the Human Development Index (HDI) in 2014, with a value of 0.540 (HDR 2014). The HDI in Far Western Region varies from less than 0.4 to 0.449. These indexes differ according to the districts and the geographical location as well; for instance, the variation in HDI from 0.364 in the Bajura district to 0.442 in the Dadeldhura district, which are mountainous and hilly districts, respectively (See Appendix 5). (UNDP/GON 2014.)

The prevalent problems and challenges in this region are discrimination among the genders and caste, unemployment and seasonal migration to India, a high ratio of
HIV/AIDS among the migrants, a lack of health services and sanitation practices leading to higher infant and maternal mortality rate, a lack or limited source of water, illiteracy especially among girls, child labor and malnutrition, limited access to credit and financial services, a lack of information and technology, considerably low agricultural production along with lack of infrastructure and market facilities, food deficit and depend on external sources, high risk of natural disaster such as landslide, flood, forest fires, transport facilities are limited to mule, horse and people (porter) due to lack of road networks. (UNFCO 2011) (RVWRMP Project document 2011.)

It is from the efforts of the Government of Nepal in association with many development organizations and their fruitful projects in this region that the situation is getting better compared to the past decade. Credit goes to various rural development projects which include activities such as water and sanitation, social issues, women empowerment, community development and micro-finance or formation and operation of cooperatives, and most important sustainability approach to their activities. There are many international donor countries and agencies, especially multiple programs from the United Nation ongoing in this area.
3 RURAL VILLAGE WATER RESOURCE MANAGEMENT PROJECT II

3.1 International agencies /organization in Nepal

The United Nations started a campaign named “Millennium Development Goals” (MDGs) in 2002, which is to be achieved by 2015. Many nations took part in this campaign, including Nepal. The goals to be achieved are: (1) Eradicate extreme hunger and poverty, (2) Achieve universal primary education, (3) Promote gender equality and empower women, (4) Reduce child mortality, (5) Improve maternal health, (6) Combat HIV/AIDS, malaria, and other diseases, (7) Ensure environmental sustainability, and (8) Develop a global partnership for development. INGOs, development organizations/partners, NGOs, donor agencies, foreign aid, and other stakeholders along with the Nepalese Government are contributing significantly to achieving the above mentioned eight goals by 2015. These MDGs are considered to be the most effective campaign bringing together governmental and development partners in order to improve the quality of life and reduce poverty. The development and resource planning organism in Nepal is the National Planning Committee (NPC), which is adapting MDGs as a framework, and the entire national development programs are linked with the goals. (Government of Nepal/National planning commission and the United Nations 2013.)

Besides the UN, bilateral and multilateral development programs are also being implemented in Nepal targeting rural areas. Finland, Canada, the United Kingdom, Denmark, the United States, Sweden, Germany, the Netherlands, Japan, and many other countries are continuously helping the government of Nepal with its development. The World Bank, the Asian Development Bank, and the International Monetary Fund are also providing technical support and funds to Nepal either as loans, grants or subsidies. All these agencies or countries have their own development guidelines and strategies, but ultimately all of them are linked to MDGs.
3.2 RVWRMP Intervention

The Rural Village Water Resources Management Project (RVWRMP) Phase II is a bilateral project between the Government of Finland and the Government of Nepal. It is currently running in nine districts of the Far western region and one from the Mid-western region. Phase II of this project started in August 2010 as a continuation of Phase I, which started in 2006. The promising results from Phase I were the fundamental basis for the continuation of this project to Phase II. The core concept of this project is to support the local governmental organizations in decentralized planning, implementing, monitoring, and evaluating water supplies, sanitation, irrigation, micro-hydro, improved cooking systems, livelihood, rural saving, and credit and other cross cutting issues to build up the institutional capacity of those organizations. (RVWRMP Project document 2011.)

a. Goals

The overall (long term) objective of RVWRMP II is "institutionalized capacity at local and regional levels to sustain and continuously improve enhanced quality of life, better environmental conditions and increased opportunities in rural livelihoods in project area." (RVWRMP II project document, 2011, p. ix)

The main purpose of Phase II is to achieve improved well-being and reduced poverty in the project VDCs. The impact factor of the outcome of the project is very high, meaning that the results are the key indicators for achieving Nepal’s MDGs. The following are the largely impact oriented results targeted by the end of the project:

Result 1: institutionalized community capacity to construct and maintain a community managed water supply and adopt appropriate technologies and behavior related to sanitation infrastructure;

Result 2: improved and sustainable nutrition, food security, and sustainable income at the community level through natural resources based livelihood development; and
Result 3: institutionalized capacity at the district level to continue integrated water sources planning and to support communities in implementing and maintaining Water Supply, Sanitation and Hygiene (WASH) and livelihood activities.

b. Project approach

The project emphasized a community-based approach to all sectors such as water supply or resource management, livelihood activities, or microfinance activities. RVWRMP II applies the bottom up and participatory approach through active participation of communities from comprehensive, multi-sector planning to the implementation phase and throughout the rest of project cycle. The main reason behind the community participation is to build up the capacity of the community and to promote the community ownership. The project strongly follows the Gender and Social inclusion (GESI) strategy during their operation. The livelihood development activities and enhancement of rural saving and credit encourage people and show how to generate income in communities. Moreover, the concept of multiple uses of water resources (MUSA) on the basis of Water Use Master Plan (WUMP) gives the project and community better guidelines for executing the plan. Coordination with various stakeholders and other actors in the project area has been beneficial in developing the network and easing the development process.

c. Structure of project

The main governing bodies for this project are the Ministry of Local Development, the Ministry of Finance (Nepal) and the Ministry of foreign Affairs (Finland) represented by the Embassy of Finland in Nepal. The executing agency is the Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR) under the Ministry of Local Development along with the district development committee in the respective project districts. The district development committee (DDC) is responsible for planning and executing the activities of the project in each district with the support from DoLIDAR-
DAR and RVWRMP II. The project work is done in collaboration with local institutions such as NGOs, User Committee, and Community organizations (COs) etc. They are working for the welfare of villages. It is one of the key activities of the DDC and RVWRMP II to focus on capacity building, providing technical, financial, managerial support, and the sustainability of these institutions.

d. Budget

Being a bilateral project, the funds are allocated between the Government of Finland and the Government of Nepal. The estimated budget at the beginning of Phase II was 23.2 million EUR. The contribution from the Government of Finland as a grant was 13.5 million EUR, which is equivalent to 58% of the total budget, and that of the Government of Nepal 3.16 million EUR (14%). The other sources of funding were from DDC/VDC - 1.5 M EUR (7%) and user/beneficiaries – 5 M EUR (21%). The fund is divided as the Technical Allowance (TA) Fund and the District Water Resources Development Fund (DWRDF). (RVWRMP Project document, 2011)

3.3 The concept of livelihood and cooperative in RVWRMP II

Despite the main focus area being the Water Sanitation and Hygiene (WASH) sector of RVWRMP II, the livelihood and cooperative sector are also vital to achieving the anticipated Result 2. This study is focused on these two sectors and excludes other activities of the project.

a. Livelihood concept

In the first phase of the project, livelihood activities were piloted in the eight VDCs in three districts. Each working VDC of the project is facilitated with livelihood activities, which include simple home gardens to advanced levels of income generating activities. Almost all the districts in the project area are declared as food deficient by the government and they have to depend upon external sources. Considering this fact, livelihood intervention through the project has up to the date of publication been fruitful and has
helped to promote agriculture, food security, and nutrition. RVWRMP II’s main focus regarding livelihood activities are basic food and vegetable production, healthy eating habits, awareness of nutrition and nutritional crops and promoting cash crops and off season vegetables using poly-houses for income generating activities. The concept of value addition on produced crops or selecting the crops which have high value is implemented as the second level of livelihood intervention once the basic food habit is established. Few VDCs in the project area are already at an advanced level of livelihood intervention. Table 1 lists the various activities and their beneficiaries under home garden and advanced level intervention by the project.

Table 1. No. of Household (HH) benefitting from livelihood, as of 2012/13

<table>
<thead>
<tr>
<th>Category</th>
<th>Activities</th>
<th>Total (HH)</th>
</tr>
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<tbody>
<tr>
<td>Home Garden</td>
<td>Seasonal Vegetable Production</td>
<td>24,226</td>
</tr>
<tr>
<td></td>
<td>Spices Production</td>
<td>21,848</td>
</tr>
<tr>
<td></td>
<td>NTFP Cultivation</td>
<td>3,581</td>
</tr>
<tr>
<td></td>
<td>Fodder Cultivation</td>
<td>14,575</td>
</tr>
<tr>
<td></td>
<td>Medicinal Plants Cultivation</td>
<td>2,649</td>
</tr>
<tr>
<td></td>
<td>Fish Farming</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Fruit Production</td>
<td>9,071</td>
</tr>
<tr>
<td></td>
<td>Ground Nut Production</td>
<td>287</td>
</tr>
<tr>
<td></td>
<td>Bee Keeping</td>
<td>3,551</td>
</tr>
<tr>
<td>Advance Level/ Micro Enter-</td>
<td>Off Seasonal vegetable production</td>
<td>2,727</td>
</tr>
<tr>
<td>prises</td>
<td>Commercial Spices Farming</td>
<td>2,732</td>
</tr>
<tr>
<td></td>
<td>Allo Processing</td>
<td>113</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>85,367</strong></td>
</tr>
</tbody>
</table>

Source: Annual Progress Report FY03 (2012/2013), RVWRMP II

RVWRMP II has been continuously working to solve the problems of traditional agriculture practices by replacing them with new techniques and methods. The project provides technical support to farmers and supplies the necessary seeds and fertilizers in its working VDCs. The local agro-vet, which provides the necessary items for farmers, are also being promoted and strengthened by the project with numerous training and capacity building programs. The project also organizes many trainings, workshop, and seminars to empower local farmers. Female participation, gender based participation, im-
pacts on climate change etc. are the highly important issues while carrying out livelihood activities.

As per the annual progress report 2012/13 of RVWRMP II, there has been a significant development in the livelihood sector. As a result of home garden practices, the malnourished children under the age of 5 has been reduced by 40%, and it is expected that almost 70% of the project beneficiaries will be involved in home gardening by the end of this phase. Similarly, an ample positive increment in new employment opportunities at the community level has occurred, and the rate of migration has decreased by 20%. Improvements in the availability of micro-finance to community-owned institutions and their members have been noted. There exists a substantial participation of minorities or deprived groups in those institutions and at least 50% of leaders are women. The unused/waste water from tap, micro-hydro are being used for irrigation as per the multiple use of water (MUSA) concept. The multiple use approach also results in the formation of three micro enterprises in three different districts. These are utilizing micro-hydro power and the water sources. The enterprise includes spice grinding, wooden and bamboo furniture/crafts, potato chips manufacturing, which resulted in the creation of jobs for over one-hundred households. (RVWRMP II Annual progress report, 2013.)

b. Cooperatives concept

Community is the integral part of the project as they are the key elements of the project operation and most importantly communities are the ones who benefit from the project’s outcome. Community organization (CO) is small group of people in a community formed with a motive to carry out saving and credit activities within its members and assist in community development process. Some COs are officially registered and some act in informal ways. RVWRMP II assists these COs at every step possible to strengthen them to manage the water resources, livelihood activities and development of community. In order to make these small organization sustainable, RVWRMP I attempts to establish a cooperative by comprising the COs. This pilot initiation ended up forming four multipurpose cooperatives at the VDC level in Phase I.

In the second phase, the project categorized the potential VDCs to develop the agricultural multipurpose cooperatives and formed nine in different districts. Along with new
cooperatives, the project is still focusing on strengthening and enhancing the capacity of existing cooperatives. The development of multipurpose cooperatives was an act of shaping the sustainable future for the community organization in an institutional manner. The long-term vision for cooperative development is to improve living standards of rural communities through collective institutional development. The cooperative therefore shall be a tool for recognition of COs, sustainability of developed infrastructure, and a focal point for availability of goods and services in a village.

Although RVWRMP gave birth to the cooperative, the main target is to make that cooperative community owned, reliable, and sustainable. The project secured technical support from the Nepal Agricultural Cooperative Central Federations, Ltd. (NACCFL)\(^1\); it also assisted in developing the linkage with Sana Kishan Bank for wholesale credit and other stakeholders including governmental and non-governmental organizations.

\(^1\) NACCFL is an autonomous community owned institution mandated for the provision of appropriate non-financial services to the member cooperative for their institutional development and for the socio-economic development of the small farmers and deprived group members in the rural community.
4 LITERATURE REVIEW ON COOPERATIVES, AGRICULTURE MARKETING, AND VALUE CHAIN

4.1 Cooperative definition

A cooperative is an institution formed by a group of people in a society with a common motive to deal with their existing socio-economic problems. The universally accepted definition of a cooperative is given by the International Cooperative Alliance (ICA) in 2005, which states a cooperative as “An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise.”

The International Labour Organization (ILO) defines the "cooperative" concept as follows: "Cooperatives are associations of persons with limited resources united to improve their economic conditions through forming autonomous and democratic management" (Latifov & Safarov 2013, p.8).

Depending upon the need and interest, there are many kinds of cooperatives functioning all around the world. These different types include consumer, producer, worker, and service cooperatives (Ortmann & King 2007). All the ingredients needed in a full functioning cooperative are present in agricultural or farmer cooperatives. The farmer cooperative associations include institutions where the members, producers, and consumers are farmers and they are at the same time both owners and users of the services (Knapp 1962).

Agriculture cooperatives can be categorized into three different forms: input supply, marketing, and production. The input supply cooperatives provide raw materials such as seeds, fertilizer, and livestock. Marketing cooperatives carry out distribution and finding places to sell the products, and the production cooperative does the final processing and makes the product high value for consumers. (Birchall 1997.)

Agriculture cooperatives provide stability in farming. They build the capacity and strength of farmers in value addition of products, the proper placement of produced
goods in an appropriate market with a reasonable price, providing economic benefits to farmers/cooperative members (Allahdadi 2011).

There are eight worldwide applicable cooperative principles developed by the International Cooperative Alliance and they act as operating guidelines for cooperatives. The principles are voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, co-operation among cooperatives, and co-operation among cooperatives.

4.2 History of cooperatives

Cooperation among people started long ago with the start of human civilization, and the idea of a cooperative might be in practice for ages. In spite of this, it was the year 1844 when the cooperative movement was identified with the formulation of consumer cooperative by Rochdale of Equitable Pioneers, Ltd. Another milestone for the development of a modern cooperative society was the development of the first savings and credit cooperative by Fridrich Wilhelm Raiffeisen in Germany in 1864 (Ortmann & King 2007), followed by the establishment of the International Cooperative Alliance (ICA) in 1895. Robert Owen is considered as the father of English Socialism and the founder of the modern cooperative movement.

In the Nepalese context, the modern cooperative movement was initiated in 1953 as an effort to support the flood victims and a resettlement program in the western part of Nepal. Before the modern cooperative movement, there used to be informal practices of cooperation (Financial) in a community in different ways and they are often termed as Guthi, Parma, Dhikuri, Dharmabhakari etc. The enactment of the Cooperative Societies Act in 1959 gave legal identification to 13 credit cooperatives established by the then government in 1956. Over time many laws and acts were amended and finally after the restoration of democracy in 1990 the democratic government enacted the Cooperative Act in 1992 and Co-operative Regulations in 1993. After this, common people could establish their own cooperatives, depending on their interest and need. The cooperative Act 1992 of Nepal has accepted the worldwide principles of cooperative and provides the legal base for the establishment of cooperatives, cooperatives society/union/federation. (Department of Cooperative 2011.)
4.3 Agriculture cooperative as a tool for rural development

When it comes to the role of agriculture cooperatives in rural development, various constraints like growth, technical feasibility, poverty impact, and policy by the government or other interested organizations (Hazell et al. 2010) are considered important. Cooperatives create significant potential for poverty reduction, employment opportunities, capacity building and empowerment through cost reduction, income generation, equal distribution of benefits, and sustaining business activities (Barton, 1989; Philip, 2003; Van Niekerk, 1988). Reducing the poverty in a rural area is a path towards its development. Agricultural products with great productivity, values and sustainability are the keys to reducing the poverty in such areas (Verhofstadt & Maertens 2014, 2).

Many analysts are concerned about the cooperative as a productive institutional tool to maximize farm products, farmer participation in income generating activities and market coverage, which result in assisting the development of a village or community resulting in diminishing poverty (Fisher and Qaim 2012 a&b; Bernard and Taffesse 2012; Bernard and Spielman 2009; Markelova et al. 2009; Shiferaw et al. 2009). A cooperative as a vehicle for economic development can break the vicious cycle of poverty and lead a community towards development. Investment is certainly a powerful medium of increasing income and productivity to reduce poverty. This is possible with the effective institutionalization of cooperatives with a good policy framework, which can enhance the rural poor towards investment through cooperatives. (Onchangwa et al. 2013; Bharadwaj 2012.)

Agricultural cooperatives also help to promote education, health, and sanitation to sustain the rural livelihood through various campaign and awareness programs. The author also emphasize that through cooperatives, people will understand the business development process, improve their discussion practices in democratic ways, get the platform to discuss the social problems inherent in the community, and focus on possible solutions. Also, the employment opportunities and other social benefits would to some extent control the migration problem and motivate the sustainable development of a community. (Chambo 2009.)

Often cooperatives are considered as small or limited organizations whose main motives are to serve the community. Cooperatives not only focus on a limited area or micro
economy but also have greater impacts on GDP and a country’s macro economy. Hansmann (1999, 387) clarifies this narrow concept explaining the cooperatives are a “big business of distinctly modern type”. Giving an example from the US, the author further explains that cooperatives represent a substantial share of the economy in more developed market economies than in less developed ones. (Hansmann 1999.)

In many developing countries, cooperatives are given a high profile in economic planning and considered as a major tool of development (Birchall 2003). Their respective government’s support to strengthen them is increasing significantly. For instance, the interim constitution of Nepal (2007) declared the policy of economic development through three major sectors, i.e. governmental, private, and cooperatives (Interim constitution Nepal 2007)². This shows how cooperatives are the key player for economic development. It is considered as a high priority sector in planning the economic development from the small community level (rural) to national level.

### 4.4 Agricultural cooperatives and rural agriculture marketing

In rural areas, people are generally engaged in agriculture their main source to fulfill their basic needs. The marketing term or simply selling the agriculture product arises in the farmer’s head after they have consumed the product themselves. Then the farmers start to look for the market in order to sell what is surplus. Here the cooperative plays a vital role to discuss what can be done with the surplus products. The cooperative is such a place where the farmers, members or not, discuss their problems. The concept of marketing cooperative emerges as a solution for utilizing the surplus product (Galor 1990).

The author further explains marketing a cooperative as a process where agricultural products pass from producer to a consumer.

A cooperative as a marketing channel for agriculture products is beneficial for farmers, rural agriculture entrepreneurs, and cooperatives themselves because of the bulky nature

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² The interim constitution 2007, Nepal has been amended eight times and the final amendment to date was completed on May 28, 2010. The statement about cooperative remains unchanged.
of agriculture products and their difficult transport, processing, and balancing costs (Lind 2011). Similarly, marketing through cooperatives enables the producers to take risks with production, gain more bargaining power, even to start a processing plant, and finally help to balance the supply and demand (USDA/RD 1998). Some other benefits of marketing through cooperatives are risk and margin reduction, market power avoidance, influencing the consumer price, and prospect of developing the network among the farmers and market actors (Sexton and Iskow 1989).

The cooperative can take various steps to promote and strengthen the agriculture marketing. In order to exist and survive in this dynamic and competitive market environment, a cooperative should concern and follow various critical roles to pursue marketing activities. Figure 2 illustrates the major area of concern for the cooperative in order to successfully execute the marketing activities (Gouët & Paassen 2012). Furthermore, the other indicators to identify the prospect of cooperatives in marketing are: sufficient equity and business volume, accountability, a case study on other cooperatives’ marketing experiences, management training, market analysis ability, a marketing plan, and agreements (Bruynis et al. 2001).

![Figure 2. Significant aspects of agricultural marketing through cooperatives.](image)

### 4.5 Why agricultural cooperatives fail?

Depending on political, socioeconomic, and geographical locations, there are many problems which cause failures in cooperatives. Despite the previously mentioned external factors, there are other internal factors such as members, cooperative management
and cooperatives’ financial position are responsible for cooperative failure. The following section explains the problems and causes of failure in cooperatives.

4.5.1 Causes, weaknesses, and outcomes

“Of course, there is no such thing as a perfect co-operative – as there is no such thing as a perfect economy. The ingredients of failure exist in all co-operatives, and what matters is how co-operatives recognize this on an ongoing basis.” (Griffiths 2004, 2)

In general, Machete (1990) highlights the causes of failures in cooperatives, such as: a lack of understanding the purpose of cooperatives, their rights, poor management, disputes among the members or cooperative representatives, and a lack of education and training. Griffiths (2004) distinguished the failure of cooperatives in two different aspects: economic and cooperative failure. According to the author, (1) economic failure is when the cooperative cannot survive in the operating environment, cannot compete and generate profit, whereas (2) cooperative failure does not bother the stability of the economy, it can rather still do viable business and generate profit, but there is a breach of cooperative values and principle (Griffiths 2004).

4.5.2 Problems existing in traditional cooperatives

The following section explains some of the inherent problems in traditional cooperatives, which are still in practices in many parts of the world. Considering the cooperatives in a new institutional framework (Cook 1995; Nilsson 2001), agency problems and ill-defined property rights are serious obstacles to the growth and progress of cooperatives (Fahlbeck 2007). Cook (1995) categorized the problems as free rider, horizon, portfolio, and influence cost problems. Furthermore, Nilsson (2001) sub categorized them as investment related and decision related problems.

a. Free-rider problem

“When property rights are untradeable, insecure, or unassigned, the free rider problem emerges” (Cook 1995, 1156). Cooperatives being the collective organizations are liable for sharing the limited assets they own among its members irrespective of their duration
of membership, investments, and contributions made, which in turn creates a conflict known as the problem of common ownership (Cook 1995; Nilsson 2001). The reason behind the occurrence of the ownership problem is the right to residual claims on conventional cooperatives is connected with patronage instead of investments made by members (Ortmann & King 2007). A common ownership problem is considered as insider or the internal free rider problem. In modern cooperatives, these kinds of problems are minimized through closed membership and increasing the up-front investment policy. In case of agriculture cooperatives, they have problems implying these sorts of policies as many people are directly or indirectly involved in cooperatives just making it difficult to have closed membership.

b. Horizon problem

This problem is an outcome of inadequate planning the time period (horizon) by cooperative members (Nilsson 2001) and the fact that a “members’ residual claim on the net income generated by an asset is shorter than the productive life of that asset” (Cook, 1995, 1156). Moreover, it is not possible to transfer the ownership rights once the member leaves the cooperatives due to the absence of the secondary market (Cook 1995; Nilsson 2001). This leads to the decision makers finding themselves under pressure to emphasize the current cash flow and increase the equity redemptions at the expenses of retained earnings (Cook 1995; Crooks 2004). As consequences of this problem, members are less likely to invest in assets because of less return on investment and rather focus on short-term benefits, which ultimately hinder the innovative research and development as well as marketing activities.

If the cooperative members start putting pressure on management to increase the current payments rather than the investment, increase the dividend ratio and liquidate the assets partially or as a whole; then the cooperative is suffering from a horizon problem.

c. Portfolio problem

The portfolio problem can be viewed as “another equity acquisition problem” (Cook 1995 1157) from cooperative firm’s perspective. The investment related decision or portfolio is made according to the decision of patronage in traditional cooperatives. Diversification of the member’s own portfolio to reflect individual risk preference is not possible resulting in suboptimal investment by members (Chibanda et al. 2009).
The risk to the investor can be reduced through a well-managed portfolio (Nilsson 2001), but in traditional cooperatives it is difficult to reduce the risk factor because of the inherently heterogeneous members: all of them cannot make decisions on risk bearing, capital, investment, and other economic indicators. Considering the above explanation, this problem is one of the most difficult to handle (Iliopoulos and Cook 1999).

d. Control problem

A control problem arises when “the agency cost associated with trying to prevent the divergence of interests between the membership and their representative board of directors (principal) and management (agent) in a cooperative” (Cook 1995, 1157). The lack of proper information systems and monitoring tools creates the problem in control. For example, the lack of shares or equity market for proper trading leads to the lack of information on cooperatives’ value and performance of management (Ortmann & King 2007).

The members of cooperatives are not necessarily educated or skilled. Due to the diversity in members the problem of understanding them about their contribution to a cooperative and what they are gaining from it is often confusing for them. This lack of self-esteem creates the dilemma in the members towards their own interest, which in turn de-motivates the members to participate in organizational activities which result in an ineffective market structure and lack of owner-control over the firm.

Further explained by Nilsson (2001, 330), “indication of market forces in the relationship between the members and the organization- members receive insufficient compensation for their involvement, which means that the owner-control does not work.” The consequence is that the control mechanism of the firm will be weak and the members’ intended desire cannot be achieved.

e. Influence cost problem

The diverse objective and thought of members and the variety of activities of by cooperative create this problem. “If a cooperative’s charter permits it to engage in wide range of activities, then diverse objectives among its members can lead to damaging influence activities” (Cook 985, 1157).
This problem arises when a decision is made which influences the distribution of benefits and those members or parties who are affected, try to or have some channel to influence the decision maker and make the decision in their favor (Iliopoulos and Cook 1999). As a result of differing opinions on investments, returns, benefits etc. among the members, the management cannot decide to evaluate or prioritize the opinions set by members. Thus, the managers are not being able to satisfy the member’s need and have to follow market signals regarding decision-making (Nilsson 2001).

4.6 Factors affecting the success of agriculture cooperative

There are many authors who have contributed to pointing out the success factors in cooperatives. As mentioned in the paper by Ochieno (2013) in his dissertation thesis, the authors Barrat (1989), Anderson and Henehan (2013) and Kherallah and Kirsten (2002) have highlighted the contributing factors for cooperative success, such as: access to capital start-up costs; business skills training for the members, marketing and market analysis training and experiences, book keeping and cost analysis, literacy and managerial skills, and attitudes towards work. The success of a cooperative also depends on the financial performance such as net margin, commodity prices, return on equity, and growth in sales (Cook & Burress 2009). Adequate availability of equity before startup, maintaining the business volume, proper book keeping and an efficient flow of financial data or records are considered as the success factors for cooperatives (Bruynis et al., 2001). Sexton and Iskow (1988) categorized the three interdependent factors for success of cooperatives to be organizational, financial, and operational.

The key variables to measure the performance of cooperatives are longevity, profitability, business growth, and member satisfaction (Bruynis et al. 2001). This measurement can act as significant factors to establish the cooperative in a better position toward sustainability.

Similarly, good governance, member attitudes, management skills and qualifications, market environment, and external or foreign assistance also play a vital role in enhancing the cooperative performance. Good cooperative performance is the outcome of a good institution and governance (Chibanda et al. 2009). Figure 3 clarifies the dependen-
cy of performance on governance and institution. Also the figure shows that good performance is the key to sustainability.

Figure 3. Interrelationship between institution, governance, and the performance.

Good performance can be defined as improved quality on the product and services, productivity, efficiency, competitiveness, increased capital and membership, financial accountability and returns. The governance includes mostly internal factors inherent within the firm such as a member’s effort, motivation, commitment, loyalty, and the relationship between a cooperative and members. Along with these factors, governance is also characterized by accountability, the democratic selection of the decision maker, capacity building and the necessary training to enhance the skills and experience of both members and management. The institutions comprise government policies, legal framework, voting rights, markets (product & service and financial) and marketing system, various government or foreign aid. (Chibanda et al. 2009; Nkhoma 2011; Ochieno 2013.)
4.7 Value chain in cooperatives

“The value chain describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use” (Kaplinsky 2000, 8).

ILO (2007, 5) defines value chain as, "the fact that value is added to preliminary products through combination with other resources (for example tools, manpower, knowledge and skills, other raw materials or preliminary products). As the product passes through the stages of the value chain, its value increases."

The simple explanation for the value chain is the process or sequence of activities occurs from an early stage of production, i.e. input supply, processing goods and finally using the appropriate modes, the finished goods reached to consumers.

4.7.1 Value chains as tools for market competitiveness

Value chain analysis helps cooperatives make future plans and guides them to develop the marketing and competitive strategy. Value chain analysis is important for a cooperative to figure out the potential of financial and non-financial activities and to identify and address the constraints at various levels of business (Mayoux 2003).

Usually, the rural farmer’s associations or small enterprises that produce the agriculture product are not capable enough to supply products to large suppliers, and hence they cannot compete in the value chain and possibility to enter the new value market is difficult (Saarelainen & Sievers 2011). In the rural case, integration among the farmers or farmer network with an agriculture cooperative in the form of input supply, processing and marketing would lead the rural agriculture product get the appropriate price and valuable customers. Cooperatives can act as the linkage between the producer and end consumers.
Figure 4. Value chain model in agricultural marketing through a cooperative.

Figure 4 is a simple example of how markets operate in a value chain scenario and it also shows the flow of various variables along different phases, i.e. from raw input to the end consumer. So the cooperative can play a vital role from the very beginning of the value chain process until the end.

4.7.2 Involvement of foreign and national development organizations

The recent development in the value chain framework provided the analytical tools for value chain analysis, including three key elements: rent, governance, and efficiency (Kaplinsky 2000). Although the tools exist, there is a challenge for development cooperation and stakeholders about the complex analytical approaches in the value chain such as vertical or horizontal linkage, competitiveness, economic efficiency, and sustainability. In order to implement the analytical tools effectively and to provide the necessary guidance and policy, different donor agencies are contributing to various levels, including United Nation (UN) agencies. (Stamm et al. 2011.)

Along with the UN, there are other organizations which are actively involved in value chain analysis, developing the regulations, framework, and approach at the different
level in different countries. Different donor agencies are implementing their own approach developed by themselves and following are the popular three models (Stamm et al. 2011).

Table 2. Value Chain Models and their Implementation.

<table>
<thead>
<tr>
<th>Models</th>
<th>Key Features</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive planning approach</td>
<td>detailed analytical value chain mapping and market analysis prior to intervention</td>
<td>USAID: Participatory value chain analysis (PVCA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GTZ : Value links methodology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FAO: Commodity supply chain analysis for pro-poor rural growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ILO: value chain upgrading model.</td>
</tr>
<tr>
<td>Participatory workshop centered tools for value chain analysis</td>
<td>Mobilization of stakeholder’s knowledge rather than extensive previous academic research</td>
<td>ITC : SHAPE technique</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mesopartner (German consulting firm): Participatory Appraisal of competitive advantage (PACA) technique.</td>
</tr>
</tbody>
</table>
5 COMPARATIVE STUDY OF SHIRSHA, BISHALPUR AND KUWAKOT COOPERATIVES

In the first phase, RVWRMP has developed four cooperatives as pilot initiation in order to improve the saving, facilitate the local people with the credit/loan to fulfill their need and to encourage them for income oriented activities. Out of the four cooperatives, three of them are Sirsha Small Farmer Agricultural Cooperative Ltd. in Sirsha VDC, Bishalpur Multipurpose Cooperative Ltd. in Bishalpur VDC, and Kuwakot Small Farmer Agricultural Cooperative Ltd. in Kuwakot VDC of Dadeldhura and Baitadi Districts respectively. During the pilot phase, all these cooperatives received Rs. 500,000 as endowment and operating fund from RVWRMP I. The fund was resourcefully utilized by the above mentioned cooperatives for the duration of three years. At the end of the 'three'-year tenure', they were liable to transfer their used fund as an installment to other newly formed cooperatives. But these cooperatives failed to fulfill their duties. One of the objectives of RVWRMP I and II is to involve cooperative in carrying out various tasks of the project such as livelihood activities, maintain the operation and maintenance fund of the completed water schemes, sanitation activities and other socio-economic problems. The purpose behind this is to make the outcome of the project sustainable as well as sustainable development of community.

5.1 Present status of the cooperatives

These three cooperatives (coop) are operating efficiently in saving and credit activities. Among them Sirsha cooperative has good financial transactions. The Sirsha cooperative received financial and technical assistance from Small Farmer Development Bank of Rs. one million to enable them for their effective operation and meet any shortage of capital. When asked about the usability of loan amount taken by the farmers from the cooperative, the answers revealed the use of loan for the purpose different than that stated during loan application.

One of the objectives of the cooperative is to lend money to promote the livelihood of people. Instead many of the money borrowers are not using the money for this objec-
Because of those activities, cooperatives are suffering from a lack of flow of money and waiting time/queue for the loan borrower is quite long. However, they have a healthy repayment rate of loan ranging from 100% in Sirsha, 98% in Bishalpur and 93% in Kuwakot cooperatives.

5.1.1 Financial position and compositions of cooperatives

There were 1,672 shareholders in Sirsha cooperatives, 530 in Bishalpur and 822 in Kuwakot by the year 2012. Table 3 shows the financial position of cooperatives as of 2012.

Table 3. Saving and Credits activities of cooperatives as of 2012.

<table>
<thead>
<tr>
<th>S.N</th>
<th>Particulars</th>
<th>Sirsha (Rs)</th>
<th>Bishalpur (Rs)</th>
<th>Kuwakot (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Share Capital</td>
<td>1,197,477</td>
<td>419,900</td>
<td>559,000</td>
</tr>
<tr>
<td>2</td>
<td>Reserve Fund</td>
<td>116,832</td>
<td>377,983</td>
<td>244,000</td>
</tr>
<tr>
<td>3</td>
<td>Total Savings</td>
<td>4,325,721</td>
<td>1,020,965</td>
<td>1,400,000</td>
</tr>
<tr>
<td>4</td>
<td>Loan Provided</td>
<td>6,247,000</td>
<td>2,770,526</td>
<td>2,471,600</td>
</tr>
<tr>
<td>5</td>
<td>Profit</td>
<td>187,337</td>
<td>28,512</td>
<td>61,195</td>
</tr>
</tbody>
</table>

(1 euro equivalent to 100 NPR)

5.1.2 Livelihood activities by cooperatives

Currently, Sirsha cooperative is supporting the demand base livelihood program supported by RVWRMP II both financially and technically. Within the Sirsha cooperative, the cooperative have formed a network of farmers who are responsible for handling this demand-based program. The procurement process of seeds and other input supply is facilitated by RVWRMP staff. After monitoring the land preparation for the plantation, the farmer’s network then distributes the seed to the interested farmers. In order to make the demand based program fruitful, frequent monitoring in villages is carried out with a coop representative, a farmer’s network members, and RVWRMP II local staff. There is one Agro-vet in Sirsha VDC who provides necessary fertilizers and other agricultural tools to the farmers.
In Bishalpur VDC, there is no direct linkage to livelihood activities through cooperatives. The support organization, i.e. the NGO working under RVWRMP II, is involved in handling all the distribution of seeds and technical assistance to the farmers. There is one technician for animal services from the local government office, but no agro-vet is available. The cooperative employees when interviewed failed to provide the information regarding the current situation of the livelihood activities in the VDC.

The Kuwakot VDC has a similar situation to Bishalpur VDC. They had one agro-vet who was not very useful. The reason behind that according to one of the employee of cooperative was there are many INGOs and other organizations which are providing seed and technical assistance to the farmers, so no one really felt the real need for agro-vet.

Table 4. Breakdown of loan amount for livelihood activities.

<table>
<thead>
<tr>
<th>Investments Category</th>
<th>Present Status of Investment in the VDCs (In Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sirsha</td>
</tr>
<tr>
<td>Animal Husbandry</td>
<td>3,670,100</td>
</tr>
<tr>
<td>Agriculture</td>
<td>90,000</td>
</tr>
<tr>
<td>Business</td>
<td>2,235,300</td>
</tr>
<tr>
<td>Foreign Employment</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>251,600</td>
</tr>
</tbody>
</table>

(1 Euro equivalent to 100 NPR)

5.1.3 Marketing activities

Except Kuwakot, there is a collection center building in other two cooperatives but unfortunately none of them are functional. Thus, the marketing activities are lacking in all the cooperatives. Sirsha Coop is using the building for storing and distributing seeds from the demand based program. The collection center building of the Bishalpur Coop was constructed by GIZ, but no activity regarding the collection of agricultural products has been done. All of these cooperatives are lacking the marketing plan or strategies in their next three year business plan, i.e. 2012 to 2015.
## 5.2 SWOT Analysis of cooperatives

| Strengths | • Use of double entry system of accounting in all the Coops.  
• Effective implementation of rules and regulations.  
• Regular operation based on the policy in terms of management.  
• Existence of proper rules and regulations for working approach.  
• Regular service to the shareholders |
| Weaknesses | • Lacking to manage the doubtful debt.  
• Inadequate attendance of BOD members in meeting  
• Lack of increase in Saving and re collection  
• Due to lack of capital, all shareholders are not able to get the loan on time |
| Opportunities | • Less number of competitors.  
• Presence of many support organizations like VDC, DDC, NGOs, INGOs etc.  
• Easy access because of Cooperative Act and Local governance act.  
• Development Infrastructure: Agriculture, Road, Drinking water, Irrigation, Education, Health and Communication.  
• Geographical situation: Forest, River and streams, medicinal herbs.  
• Political parties and their members are supporting the cooperative activities. |
| Threats | • Lack in Coop expertise and training  
• Coordination with Support organizations might not be effective because of geographical location.  
• Not effective implementation of all law and policy.  
• Limited possibility of development infrastructure.  
• Unstable political situation creates problem. |
5.3 Prospect of advanced level livelihood activities

Livelihood activities are the key component for the agricultural production and main input supply for the marketing by cooperatives. The following figure illustrated that in order to implement the advance level of intervention by RVWRMP II in the respective villages and the cooperatives, following elements should coincide; the local potential, interest demand by people and market demand.

![Figure 5. Intersection of local potential, interest and market demand.](image)

**Existing/Local potential**

With proper technical and financial support, all these VDCs are capable of producing a variety of products on large or small scale. RVWRMP II was able to help farmers in Sirsha (favorable topography) with the concept of multiple water use (MUSA) with the easy access of irrigation facilities. In the present scenario, all the local products produced in the village are consumed in local markets. In the future, the products can be distributed to a bigger market. The project along with other support organizations frequently provides the raw materials for their livelihood development. Some district level local government organizations are showing their active interest in promoting the agriculture sector. The regular training from various agencies in villages regarding the use of modern farming techniques has empowered the farmers.
**Intended/Interest**

The village consists of different groups of people whose intention varies depending on various factors. Some local farmers just want to increase the production to have enough food to eat, and other professional farmers want to do the farming as an entrepreneurship. During the interviews, many farmers expressed the need for more training and technical support. They were also interested in improving the market access and information system. The farmers were eager to learn about the proper pricing of their agricultural products. Due to the lack of education, farmers have poor assessments of the cost of production resulting in losses or very low profit margins.

**Market demand**

The subsistence and fixed price for the product might put the agriculture product in a better position. There are some possibilities of consuming the products on a large scale in local markets or nearby assembly markets. There were some attempts to transport the products to the bigger markets, but as mentioned earlier the lack of knowledge and marketing techniques were the biggest drawbacks.

**5.4 Product analysis**

These cooperatives have different geographical locations and vegetation and thus have diverse products. In Sirsha VDC, there are over 50 professional farmers producing various products on their individual effort. Yearly a significant number of agricultural products such as cucumber, onion, black grams, peas, goat farming, poultry farming, bee-keeping products, and some other fruits and spices are produced depending on the season. In Bishalpur VDC, chili production is the most popular, and some commonly produced products are onion, garlic, potatoes, tomatoes, black peas, honey, nuts, soybeans, goat, and poultry farming. The Kuwakot VDC consists of 22 professional farmers. The main products are the cucumber, tomatoes, onion, garlic, and cauliflower. The income level of professional farmers varies from Rs. 10,000 to over 50,000 a year from agriculture products.

In Bishalpur VDC, there is no classification of professional farmers but they have a community-farming concept. This concept is a joint venture of the local VDC,
RVWRMP II, and GIZ. They have formed three strong community organizations (COs), which are producing a significant amount of products annually. The main motives of forming the COs are to unify people (irrespective of their proficiency in farming) and to carry out income generating activities and agricultural activities. The activities are procuring the raw material, division of labor, and selling the output products. The product is shared equally between the members. Individual members are responsible for selling their share of a product. The following section explains two active COs in Bishalpur VDC.

a. Shiva Shakti Agricultural CO

This CO has leased land equivalent to 0.5 hectares. They produce different vegetables and cash crops depending on the season. This CO comprises 32 members; among them 15 are male and 17 are female. This CO has 3 sub-committees to perform the livelihood activities efficiently and they are a procurement committee, a monitoring committee, and a land management committee.

The main crops produced by this CO are chili and potato. This CO produced 11 quintal of chilies and 6 quintal of potatoes in a 0.5 hectare area in 2012. As the production is so huge for such a small VDC, they have excess products to sell to other nearby markets. The other main markets for selling their products are Sharmali, Melauli, Salena, Kulau, and Mahakali (see Appendix 2).

Table 6. Income level of members of Shiva Shakti Agricultural CO.

<table>
<thead>
<tr>
<th>Income Level</th>
<th>No. Members</th>
<th>Range (IN NPR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>15% (5)</td>
<td>&lt; 20,000</td>
</tr>
<tr>
<td>Medium Income</td>
<td>65% (20)</td>
<td>20,000 - 50,000</td>
</tr>
<tr>
<td>High Income</td>
<td>20% (7)</td>
<td>&gt;50,000</td>
</tr>
</tbody>
</table>

b. Loas Tallo Gaun Agricultural CO

This CO comprises 22 members, among them 12 females and 10 males. The main product was potato and chili in the year 2012, when they produced 4 quintal in 0.25 hectares land and 5 quintal in 0.5 hecter land respectively. The CO was able to sell 3.75 quintal of potato at the rate of Rs. 28 per kg in the nearby market and Rs. 25 per kg in the local
market or through home. In the early 2013, the CO earned Rs. 26,000 from onion, garlic, potatoes, and peas.

Table 7. Income level of members of Loas Tallo Gaun Agricultural CO.

<table>
<thead>
<tr>
<th>Income Level</th>
<th>No. Members</th>
<th>Range (IN NPR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>10</td>
<td>&lt; 20,000</td>
</tr>
<tr>
<td>Medium Income</td>
<td>4</td>
<td>20,000 - 50,000</td>
</tr>
<tr>
<td>High Income</td>
<td>8</td>
<td>&gt;50,000</td>
</tr>
</tbody>
</table>

5.5 Value chain aspects

All three cooperatives are located in the rural part of the Far Western Region. For most people in the VDCs, agriculture is the major source of income. Sirsha VDC is more feasible with infrastructure and has road connections to some major markets. During the monsoon season, the flooding of the nearby river in Sirsha VDC blocks the use of roadways. This is the major problem for farmers in Sirsha, as they are not able to carry their products to the nearest market (Jogbuda) during that season. In Bishalpur and Kuwakot, access to the road connection is limited because of their difficult geographical location. The main modes of transporting the agricultural products to the nearest market are mules and humans.

Almost all the people in these villages are farmers and act as a human resource for the necessary farming process. They are doing the farming for their households and a very small amount of a product goes to the market for selling purposes. There are almost 100 farmers in all these three VDCs who are actively involved in professional farming and earn a considerably good amount of money annually.
Figure 6. Value chain visualization.

There are many INGOs, government offices, cooperatives, and NGOs working in different fields in these VDCs who are supporting agriculture, micro finance, water, and sanitation, livelihood activities, construction of irrigation plants etc. These organizations provide various kinds of services to people living in this area. Some of the organizations working are: RVWRMP, IDS, CRT/N, OXFAM, GIZ, PAF, and other local NGOs.

The support organization and local resource providers are available in this area that supports farmers in different issues. The service includes consultation, technical support, and financial support. For instance, the District Agriculture Development Office (DADO) supports farmers with advanced seeds, chemical, pesticides, technical support etc. Similarly RVWRMP is providing different training and consultation regarding cooperative development, livelihood activities, and farming techniques. All these services are the supporting activities of value chain, which promote the rural livelihood and assist in the income generating activities.

The primary activities in the value chain analysis include all the processes involved from production to consumption. In Sirsha, most of the farmers are getting all the necessary seeds and equipment from cooperatives through RVWRMP II on a demand basis and through a local agro-vet. In Bishalpur and Kuwakot local supporting organization (NGOs) of RVWRMP II are providing the required raw materials. At present, the sales and marketing functions are not running smoothly. If cooperatives can contribute to running the marketing, then this will add value to the local agricultural products.
5.6 Inherent problems in agriculture cooperatives marketing

The author tried to dig out the concerning reasons for the lack of cooperative marketing in all the villages. These cooperatives suffered from similar problems, as the modes of operation are the same in all. A lack of coordination among the farmers and cooperative is the inherent problem in these cooperatives. For instance, in Shirsha VDC the cooperative wants to take the initiative of marketing, but the farmers are not ready to collaborate with them. In Bishalpur, the case is the exact opposite: the farmers have excess products to sell and want to collaborate with cooperatives, but the cooperative takes on a silent role.

Also cooperatives’ and farmers’ lack of information on market demand, product and pricing are the additional factors affecting the marketing activities. There are many cases in villages where the lack of basic education is hampering the selling activities. For example, there is a different price for the same product selling in the local markets and the assembly market. The farmer completely ignores the cost of labor while transporting the goods to other assembly markets and still sells it cheaper than in the local markets.

The lack of funds in the cooperatives is also a problem for the marketing activities. In spite of the excellent rate of repayment in all the cooperatives, the due time for repayment tends to be longer. The reason behind the delay in payment is the dis-utilization of borrowed money.

The clash of opinions, disputes within the members and with the Board of Directors takes quite a long time to resolve. The decision making is not persistent and the poor attendance during board meetings affects further and future plans.
6 IMPLEMENTATION PLAN FOR AGRICULTURE MARKETING THROUGH COOPERATIVES

6.1 Marketing plan

Marketing activities by a cooperative depends on the objectives of the organization. The cooperative is supporting the community for different income oriented and livelihood activities like agriculture and horticulture. There is the possibility to market those products in different potential markets. In order to market the product or output effectively, appropriate marketing strategies are needed. The creation of marketing strategies in cooperative includes the following steps.

a. Marketing objectives

One of the objectives of a cooperative is to promote market based agricultural and assist the farmers in providing raw materials and finding the suitable market for their products.

1. To increase the sales and return on investment of the agricultural products.
2. To ensure the income and livelihood of the local farmers.
3. To motivate people towards professional farming rather than traditional.
4. To make sure the farmers get the right place and price for their products.
5. To identify the needs and develop new ideas and techniques for production.

b. Target markets

Target markets are those possible markets where the farmers can sell their products. It is very essential for cooperatives to determine the market for their products. The cooperative can select some people for analyzing the potential markets and carry out thorough market research.

c. Marketing mix

The marketing mix comprises four key variables referred to as 4P. These variables help to design a relevant marketing plan. There will be expenses during the process, and the costs associated with marketing should be considered as a long term investment.
Product mix

The determination of the relevant products is important for any kind of business. In order to ensure profitability, cooperatives should analyze the market of agricultural products to figure out the demand of potential goods and price them accordingly. The product selection should be based on geographical condition, demand, and market availability.

Price

There are many pricing strategies. The farmers can determine the price based on competitors' prices, the cost of production and the market demand. Moreover, the price should be fixed for the agriculture products at least in the same market, and it is possible when marketing is done by the cooperatives.

Promotion

In case of rural agriculture marketing, word of mouth is the main source of promotion. Branding is important as it gives new identity to the product. It may be the name of the cooperatives in packaging will spread the message faster. Different organizations working in the field of rural development can assist the cooperative to promote the local products at the different level and media.

Place

This is a very important variable of a marketing mix. If the organization or marketer does not know the place to sell their products then there is no point of doing that particular business. The market or place will help the farmers or producer to determine the quantity and type of product to be produced. Moreover, the place should be defined in such a way where the consumer has easy access to the products.
6.2 Distribution channel

The ultimate objective of a producer is to make sure that the products reach the customer in a proper manner and on time. The distribution channel is hence an effective key for the successful operation of business activities. The arrangement of distribution through a cooperative allows the local agricultural products to reach new markets by utilizing the economics of scale in logistics, for instance transportation and storage. A model for the distribution channel of the agriculture products from the local village to various markets through cooperatives is presented in Figure 7.

Figure 7. Distribution channel in rural agriculture market.

The same concept can be applied in Sirsha VDC in collaboration with the cooperative. The local primary market refers to the local market area in Sirsha i.e. Katal and an as-
sembly market or nearby market could be Jogbuda. The big market areas located nearby are Budar and Mahendranagar (see Appendix 2).

In the case of Bishalpur, the main markets consist of Parcheta, Melauli, Sharmali, and Salena (see Appendix 2). Similarly for Kuwakot, Haat is the most common market for trading, and if possible they can bring the products to Bithad, where they can reach the highway to Dadeldhura (see Appendix 2).

6.3 Marketing steps for cooperative

Marketing is a huge process and it differs from nature of business activities. Marketing is not just limited to the selling of the product in the market. The marketing process involves different kinds of activities starting from acquiring the product to final delivery to the market. The cooperatives are the hub for saving and credit activities, the source of various information regarding markets and the resources for the community. The cooperative must understand the concept of marketing along with its various aspects prior to marketing initiation. Figure 8 shows a flowchart displaying the step-by-step marketing process for the cooperatives after the cooperative receives the agricultural products from the farmers.
Figure 8. Marketing through cooperative
7 DISCUSSION

7.1 Role of cooperative in agricultural product marketing

Agriculture marketing especially in rural area has a lot of challenges. A value chain is an adjoined part of agricultural marketing where the cooperative can handle the process of input supply, assist in processing the goods, and finally provide the goods for the final consumers. The lack of knowledge on the pricing system, market system, and marketing are the main problems in those three VDCs and to solve these problems the respective cooperatives have a vital role to play. The following points will highlight the importance of marketing through cooperatives:

Marketing

- Provides efficient marketing services;

- Increases the income of the farmer through better return for their products;

- Stabilizes the prices of farm products; and

- Keeps the margin of commission for cooperatives during startup.

Apart from the previously mentioned objectives, the cooperatives are also established with an objective of providing service to the community. The service is not just limited to savings and credit. It covers many other aspects of society, such as promoting livelihoods, creating awareness toward many social issues, water sanitation, and resource management, participating in different social and cultural events.

The cooperatives have a major role to play in the marketing of the local agricultural products. At the moment, these three cooperatives are struggling to make any particular impact on marketing effort (see Chapter 5.1.3). As an example of failure, the Sirsha cooperative has once collected the product called black gram in their collection center but it failed as they could not determine the right price. The Kuwakot cooperative is planning to establish the collection center in the upcoming year. The Bishalpur cooperative already has their collection center but they still have to take the initiative on marketing. As per the author’s observation during the data collection process, all these co-
operatives have a market management committee consisting of at least three members, but they are not carrying out any significant task related to marketing.

For the operation of marketing activities in a VDC, there should be relevant products available to the market. The cooperative can contribute in providing the raw material for the farmers and after harvest collecting and selling products with a margin. This will be beneficial for both the cooperative and the farmers.

There are many examples in Nepal where cooperatives are taking care of the marketing activities of the local products and in some cases, processing the products for adding the value. For instance, some cooperatives in Nepal are running the dairy, retail store, the vegetable collection center, animal collection center, and other different micro enterprises such spice processing, carpet weaving, cloth weaving and so on.

7.2 Inter-relationship between cooperative, livelihood and marketing

Cooperatives, Livelihood, and Marketing are interdependent to each other. Figure 9 shows that the cooperatives are the main sources of input supply. In the present context, the farmers and other shareholders are borrowing money from the cooperatives to carryout income generating activities including production of agricultural products. The figure illustrates the importance of collection centers for both cooperatives and livelihood activities as the output from livelihood activities goes to a collection center and then to the market. The cooperative should be able to manage the collection center and start collecting the produced product in the VDC. In order to make the livelihood activities sustainable, the cooperative should act as an input supply who can supply all the raw materials such seeds, fertilizers etc. Moreover, it will be more effective if the cooperative could provide one technician and agro-vet for supporting the cultivation activities. If a cooperative is inactive in marketing activities and does not understand the importance of value chain, it will affect the cooperative in long run. As it means the possibility of returning the loan is low because of a lack of the market, it would result in the waste of the agriculture product and furthermore resulting in the waste of investment by cooperatives to the farmers.
Figure 9. Inter-relationship between cooperative, livelihood, and marketing.
Cooperatives are not just limited to saving and credit; they bear a lot of other socio-economic responsibilities. RVWRMP I established three cooperatives with the purpose of carrying out multiple activities to get sustainable results of the project. Livelihood is one of the key sectors of RVWRMP II and to make it sustainable, a cooperative has to play a major role. As a result of the livelihood initiative of the project, there are products available in the villages to sell. There has been a selling process but it has been totally unorganized. Thus, the cooperatives could act as a marketing tool for agricultural products in the villages, which will ensure the sustainable future for both cooperatives and the farmers.

All these three cooperatives have key elements for marketing. Cooperatives run the collection center, they have market management committee, the products exist for selling, and modes of different kinds of transport. The collection center is vital for marketing in VDC by cooperatives as it acts as a mass production unit. All the village products come to the collection center and then the cooperative distributes the products to various markets. The lack of knowledge, coordination, and support between the farmers and cooperatives is hindering the marketing activities.

In the market of agricultural products, there exists competition. One is India, who is a big player in supplying cheap agricultural products to Nepal. The local village products may or may not compete with the big players, but the core idea is to develop the marketing practices in these villages. So, initiation has to be taken by cooperatives.

Cooperatives must consider the matter of agriculture marketing seriously. Cooperatives are investing money for agriculture, and if the produced product fails to reach the market, a cooperative suffers from serious debt.

As these villages are deprived, many development agencies are assisting the community in various sectors. For the time being, RVWRMP II is supporting the village and cooperatives. The cooperative and the village could always take both technical and financial advantages from this organization and other associated agencies regarding the operation of marketing activities.
REFERENCES


International Labour Organization (ILO)., 2007. An operational guide to Local Value Chain Development. Combining Local Economic Development (LED) with Value Chain Development (VCD to strengthen competitiveness and integration of SMEs into markets. Colombo, Srilanka


## MDG status in Nepal

### TABLE 1. Nepal’s progress towards the MDGs: Status in 2013 at a glance

<table>
<thead>
<tr>
<th>Goal</th>
<th>Likelihood of achievement</th>
<th>Status of supportive environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Achieved</td>
<td>Likely</td>
</tr>
<tr>
<td>1 Eradicate extreme poverty and hunger</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>1 (a) Reduce extreme poverty by half</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (b) Full and productive employment for all</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>1 (c) Reduce extreme hunger</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2 Achieve universal primary education</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>3 Gender equality and empowerment of women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Reduce child mortality</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5 Improve maternal health</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5 (a) Reduce maternal mortality by three quarters</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5 (b) Achieve universal access to reproductive health</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>6 Combat HIV/AIDS, malaria, and TB</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>6 (a) Have halted and begun to reverse the spread of HIV/AIDS</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>6 (b) Achieve universal access to treatment for HIV/AIDS</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>6 (c) Have halted and begun to reverse the incidence of malaria and other diseases</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>
MAP showing the distribution network in Sirsha, Bishalpur and Kuwakot
Appendix 3

Questionnaires for discussion and semi-structured interviews.

A. Farmers/Entrepreneurs
   1. How much land are you using for cultivation? And what proportion is used for living and for commercial purpose?
   2. What sort of crops you are cultivating now?
   3. How much is the production and what percentage you are using for either consuming or selling?
   4. What is the nearest place for you to sell your product?
   5. From where you get all the technical assistance, seeds, manure/fertilizers necessary for farming?
   6. What is the contribution of RVWRMP project for promoting your business or livelihood?
   7. Are you getting all the necessary technical assistance from this project?
   8. Do you think is there anything you would like to have or is there anything, which would help improve your business and your livelihood?

B. Cooperatives
   1. What are your roles and objectives for promoting the livelihood?
   2. What are the possible reasons of borrowing the loan in the community?
   3. What are the provisions to borrow the loan for business purpose?
   4. What are your role other than saving and providing loans?
   5. Are you helping farmers for their product to sell in market?
   6. Is your business plan considering the problems and needs of the farmers?
   7. Are you involved in market management?
   8. Any suggestions for improving the market conditions?

C. Marketing Committees
   1. What are your marketing strategies?
   2. Do you have up-to-date market information?
   3. Which is the biggest market place nearby?
   4. What sort of coordination do you have with the farmers and retailers?
   5. What are the currents problems of marketing?
   6. Do you find any differences between the past and now in terms of marketing?
   7. Are you able to determine the demand and supply?
   8. Is supply sufficient according to demand?
   9. Do you think is there anything you would like to have or is there anything, which would help improve the market situation?
Appendix 4

Macro economy of Nepal at glance

### Prices and Government Finance

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Domestic prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implicit GDP deflator</td>
<td>18.5</td>
<td>3.9</td>
<td>11.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Government finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current revenue</td>
<td>8.8</td>
<td>10.0</td>
<td>17.6</td>
<td>18.6</td>
</tr>
<tr>
<td>Current budget balance</td>
<td>-0.6</td>
<td>-3.6</td>
<td>-2.9</td>
<td>-0.6</td>
</tr>
</tbody>
</table>

### Trade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total exports (US$ millions)</td>
<td>306</td>
<td>611</td>
<td>961</td>
<td>1,008</td>
</tr>
<tr>
<td>Food</td>
<td>...</td>
<td>66</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Pulp &amp; paper</td>
<td>...</td>
<td>97</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Total imports (US$ millions)</td>
<td>712</td>
<td>1,397</td>
<td>5,430</td>
<td>5,813</td>
</tr>
<tr>
<td>Food</td>
<td>95</td>
<td>82</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Fuel and energy</td>
<td>85</td>
<td>161</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Capital goods</td>
<td>138</td>
<td>178</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

### Balance of Payments

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of goods and services</td>
<td>543</td>
<td>1,060</td>
<td>1,666</td>
<td>...</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>875</td>
<td>1,703</td>
<td>6,215</td>
<td>...</td>
</tr>
<tr>
<td>Net income</td>
<td>13</td>
<td>48</td>
<td>104</td>
<td>...</td>
</tr>
<tr>
<td>Net current transfers</td>
<td>96</td>
<td>736</td>
<td>-4,282</td>
<td>...</td>
</tr>
<tr>
<td>Current account balance</td>
<td>-223</td>
<td>3,642</td>
<td>-181</td>
<td>900</td>
</tr>
<tr>
<td>Financing items (net)</td>
<td>310</td>
<td>-3,685</td>
<td>221</td>
<td>...</td>
</tr>
<tr>
<td>Changes in net reserves</td>
<td>-46</td>
<td>43</td>
<td>-40</td>
<td>...</td>
</tr>
</tbody>
</table>

### External Debt and Resource Flows

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total debt outstanding and disbursed</td>
<td>1,769</td>
<td>3,001</td>
<td>3,828</td>
<td>3,818</td>
</tr>
<tr>
<td>IBRD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>IDA</td>
<td>760</td>
<td>1,210</td>
<td>1,426</td>
<td>1,459</td>
</tr>
<tr>
<td>Total debt service</td>
<td>64</td>
<td>104</td>
<td>197</td>
<td>223</td>
</tr>
<tr>
<td>IBRD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>IDA</td>
<td>9</td>
<td>28</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Composition of net resource flows</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Official grants</td>
<td>159</td>
<td>205</td>
<td>744</td>
<td>682</td>
</tr>
<tr>
<td>Private creditors</td>
<td>102</td>
<td>-1</td>
<td>21</td>
<td>-15</td>
</tr>
<tr>
<td>Portfolio equity (net inflows)</td>
<td>-7</td>
<td>0</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>World Bank program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitments</td>
<td>179</td>
<td>23</td>
<td>247</td>
<td>82</td>
</tr>
<tr>
<td>Disbursements</td>
<td>70</td>
<td>34</td>
<td>49</td>
<td>77</td>
</tr>
<tr>
<td>Principal repayments</td>
<td>3</td>
<td>20</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Net flows</td>
<td>67</td>
<td>14</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>Interest payments</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Net transfers</td>
<td>61</td>
<td>0</td>
<td>-8</td>
<td>20</td>
</tr>
</tbody>
</table>

### Export and Import Levels (US$ million)

![Graph showing export and import levels]

### Current Account Balance to GDP (%)

![Graph showing current account balance to GDP]

### Composition of 2012 debt (US$ million)

![Pie chart showing composition of 2012 debt]

- A - IBRD
- B - IDA
- C - Other multilaterals
- D - Borrowers
- E - Other official
- F - Private
- G - Short-term
Appendix 5

District wise Human development index in Nepal -2011