

Nepal and FAO

Achievements and success stories

FAO Representation in Nepal
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Introduction

Nepal is a landlocked country covering an area of 147 181 square km and with a population estimated to have reached 27.5 million in 2010. With a per capita income of US\$480, Nepal is the 12th poorest country in the world. However, Nepal has made some progress in reducing poverty: in 1996 the poverty level, as defined by national standards, stood at 42 percent; in 2009, poverty was reduced to 25.4 percent.

However, disparity between rural and urban areas is still persistent with urban poverty standing at eight percent while rural poverty is 22 percent. In addition, the gap between rich and poor is high and increasing.

Nepal is committed to the achievement of Millennium Development Goals (MDGs) as reflected in its Three-Year Plan 2010/11-2012/13. Despite persistent deep structural disparities across ethnicities, social and economic backgrounds, geography and gender and other contextual difficulties, Nepal is on track to achieve most of its MDG targets, with a few exceptions which are more complex such as the one related to environmental sustainability.

Based on the 2008 Global Hunger Index, Nepal ranks 57th out of 88 developing countries and countries in transition. With a Global Hunger Index (GHI) of 20.6, the severity of hunger in Nepal is alarming. However, the prevalence of hunger varies substantially across sub-regions with the highest prevalence in the Far- and Mid-Western hill and mountain regions. However, there is not a single sub-region in Nepal that falls within the moderate or low hunger-categories. This underscores the seriousness of the food security situation in Nepal.

Nepal became a member of FAO in 1951 and an FAO Representative office was established in Kathmandu in 1977. Since then, nearly 200 projects covering various aspects of agricultural development have been completed.

Presently FAO is co-operating with various agencies and development partners in Nepal through a number of projects – all aiming to introduce and sustain innovative approaches to agriculture and rural development.

The country's achievements in the areas of aquaculture, fresh vegetable and vegetable seed production, community and leasehold forestry are highlighted in this publication.

Main achievements

Although the share of the agricultural sector has been decreasing slowly over the last decades, agriculture is still a major part of the Nepalese economy. It is the largest single contributor to the national economy accounting for about 31 percent of the country's GDP and provides livelihood options to about 66 percent of its population.

The sector is gradually transforming from subsistence towards commercialization. Similarly, there has been diversification of production technology of herbs like *chiraito*, *allo*, and *keshar*, in addition to high-value agricultural products. And yet, due to difficulties in transportation and prevailing non-competitive markets, especially in remote hilly areas, food security is still a major challenge.

1.1 Vegetables and vegetable seeds

Vegetables make up over one-third of the total GDP contribution from the agricultural sector. Per capita availability of fresh vegetables increased to 86.4 kg in 2008/09, which is a significant rise from 66.7 kg recorded in 2001/02.

The production of vegetables increased remarkably during the 1980s and first half of 1990s showing annual growth rates as high as 8.2 percent. Over the past decade, the growth stands at 5.8 percent which is quite impressive compared to the annual growth rate of cereal crops which is growing at a very marginal rate.

A large part of the domestic demand for vegetables is currently met by the annual local production of 2.7 million tonnes from about 225 154 ha utilized for vegetable production. However, there is still scope for enhancing performance in this area through improvements in vegetable seed quality.

The success in the vegetable sector can be traced back to the early 1970s when initial projects implemented by FAO found that vegetable varieties in use in Nepal had badly deteriorated and did not suit the wide range of climatic conditions in the country.

Likewise, seed cleaning and storage facilities were lacking and the credibility of locally produced seeds was not established with the farmers.

1.2 Agricultural marketing

Until the 1990s, agricultural development in Nepal had been focused primarily on the improvement of agricultural production and productivity with no or little attention to agricultural marketing. As a result, agricultural marketing services such as market information services for farmers and traders and infrastructural development of markets and support systems had been neglected. Farmers were producing with little or no information about market opportunities.

The establishment of a public market information service allowed for greater market transparency for producers, market operators and consumers – a solution for which FAO provided technical assistance. Construction of market infrastructure, formation of market user groups (with training in market operations and management), development of market information networks, introduction of improved packaging and transportation systems, and post-harvest technologies are some of the areas where the government sought technical assistance from FAO.

1.3 Integrated pest management

Past indiscriminate use of pesticides in farming caused frequent pest outbreaks, pest resurgence and pesticide resistance and affected the health of many farmers and rural dwellers directly or indirectly involved in the process. Consequently Integrated Pest Management (IPM) was identified as one of the ways to address these issues.

IPM is a pest control strategy that encourages applying measures that are least disruptive to the agro-systems and human health. The IPM approach also empowers farmers with decision-making skills by encouraging them to observe and monitor the crop ecology, discuss and make decisions on follow-up actions.

Since 1990, the government adapted IPM as a crop protection strategy and incorporated IPM as an integral

component of agriculture to promote the use of environment friendly technologies and management practices while enhancing agricultural productivities.

FAO supported IPM activities have resulted in about 15 to 25 percent yield increase in cereals and up to 100 percent for vegetables. The increase was achieved without any significant increase in the crop producing area.

Other achievements included strengthening of the IPM extension approach, enhancement of the technical knowledge of extension workers and farmers, leadership development of IPM trainers, linkages between governmental and non-governmental organizations, international linkages and increased employment opportunities.

Presently, main constraints encountered are excessive bureaucracy, lack of coordination and holistic vision, poor mobilization of IPM trainers (hence, limited adoption of the IPM technologies), and lack of financial resources. At the farm level, the root causes remain the same as many farmers still have poor understanding of IPM technologies and continue to look for immediately visible effects of wide-spectrum chemical pesticides.

1.4 Community and leasehold forestry

Forest has always been an indispensable part in the livelihoods of the rural people in Nepal. It is the source of fuelwood, timber, fodder and organic fertilizer and provides around 80 percent of energy in the country.

About 6 decades ago more than 65 percent of the land area of Nepal was covered by forests. This figure is now reduced to about 40 percent.

Although the nationalization of forest land in 1957 technically placed all forest land under the ownership of the government of Nepal, forest areas continued to be exploited as a common resource by local people who had access but no recognized rights to such lands.

To stop over-exploitation and misuse and to provide incentives to protect and nurture the forests, the government acknowledged that these may be achieved only through people participation and meaningful involvement in forest management.



Leasehold woman member carrying Grass, Gorkha

However, the policy was untested at that time, procedures unframed and, most challenging were prevailing attitudes with line agency staff more oriented in command and control rather focusing on developmental and socio-economic issues. Even though people had prior experiences forestry practices such as the community contributing in kind (in terms of maize, paddy, millet, etc.) and keep watchers for protection of common forests, decision making mechanisms were not participatory, and did not always benefit forest management or forest user groups.

With the introduction of community and leasehold forestry, currently more than a million hectares of land has been handed over to community forest users with an average community forest size of 80 ha benefitting around 1.5 million households. However, second generation problems associated with governance, transparency, benefit distribution, social inclusion and justice are just emerging in the sector.

1.5 Aquaculture

Nepal possesses a large number of rivers with a perennial supply of water from melting snow from the Himalayas, a considerable amount of smaller lakes, reservoirs, swamps, ponds and irrigated paddy fields suitable for fish farming.

Most of these water resources have historically been largely under-utilized. Although capture fishery in rivers, lakes, reservoirs, wetlands and floodplains has been practiced since long, aquaculture has a short history in Nepal. It can be traced back to the mid-1940s when 6 000 carp fingerlings from India were imported for the first time to the country. Thereafter, fingerlings of Rohu (*Labeo rohita*), Bhakur (*Catla catla*), and Naini (*Cirrhina mrigala*) were imported every year from India and stocked in the ponds.

Common carp (*Cyprinus carpio*) was introduced in 1956 from Madras, India (having full scales in the body) and in 1959 from Israel (having few scales in the body). However, over the years, aquaculture has developed as the fastest growing food production sector of Nepal.

Aquaculture in Nepal is basically small scale but still contributes about 2.47 percent to the agricultural GDP. Currently, around 750 000 people are engaged in aquaculture production and related activities. The sector provides income (or food from subsistence activities) for some 74 000 households (including part-time occupations). On an average, fisheries provide 10 percent of the animal protein consumed in the country. Moreover, in rural areas where the diet is generally poor and low on minerals, vitamins, etc., even a small portion of fish may be of great importance for nutrition. In addition, the cultural importance of aquaculture can be seen by that fact that Nepalese people have traditionally favoured eating fish as a symbol of good luck (Sagun).

Even though inland capture fisheries and aquaculture are the sole domestic source of fish products for Nepalese people, the development of aquaculture significantly raised the annual per capita fish consumption from 0.3 kg in 1982 to 1.8 kg (still far below the world average). This fast growth is also evidenced by the fact that production increased from 750 tonnes in 1981 to 48 230 metric tonnes in 2009.

Despite the fact that aquaculture was introduced in Nepal in the mid-1940s, the technology of polyculture was introduced only in 1967 by various fisheries development centres, aimed at higher production of fish per unit area by using different fish species with different feeding habits.

At present, seven carp species of which three are indigenous carps namely Rohu, Bhakur and Naini and four exotic carps (common carp, grass carp, silver and bighead carps) are under commercial production. Breeding and culture technologies of these species have been developed and widely established within the private sector. Pond polyculture of the above cited carp species is by far the most common aquaculture system and contributes 90 percent of the total present production. The largest part of production (94%) takes place in the southern part of the country, on the Terai plains, mainly in smaller village ponds.

Besides polyculture – and in spite of its potential – fish-cum-rice culture has not taken off. This last culture, practiced in the mid-hills and valleys, only contributed 135 tonnes in 2008/09. Culture of high-value cold water species, in particular rainbow trout, has been on-going for some years at 80 tonnes annual production in 2008/09, but not on a commercial scale.

Current estimates report that there are some 395 000 ha of rivers and about 5 000 ha of small and medium-sized lakes, 1 500 ha of reservoirs, 11 100 ha of marginal/swamps and 398 000 ha of irrigated paddy fields being used for fish production. However, at the moment the quality of fish seed, particularly carp seed for aquaculture, is commonly recognized as the number one constraint for sustainable aquaculture development in the country. The degraded quality of carp seed for aquaculture has resulted mainly from poor broodstock management and inbreeding depression among other factors.

2. Selected successful FAO programmes

2.1 Vegetable seeds

The project *Field training in vegetable seed production* (TCP/NEP/6701) was implemented between July 1977 to June 1978 with a budget of US\$138 000 to train technical officers and field level staff of the Department of Agriculture using locally produced seeds. Priority was placed on adaptive research.

The project helped to identify suitable varieties, both local and from countries in the region, and trained human resources on suitable seed production technology.



Planting along the contour, Jhirubas Palpa

This project was followed by four successive projects, all funded by the government of Switzerland, as follows:

Vegetable seed production (GCP/NEP/029/SWI), February 1981 to June 1984, \$1 271 00

Vegetable seed production, Phase II (GCP/NEP/040/SWI), July 1984 to June 1987, \$1 658 100

Fresh vegetable and vegetable seed production, Phase III (GCP/NEP/040/SWI), July 1987 to June 1991, \$2 439 000

Fresh vegetable and vegetable seed production, Phase IV (GCP/NEP/050/SWI), July 1991 to June 1995, \$383 000

These projects helped to establish physical facilities for seed storage and initiate training programmes. They were implemented in close coordination with the Vegetable Development Division (VDD) of the Department of Agriculture (DoA) of the Ministry of Agriculture and with the private sector.

Linkages were also maintained with the *Seed technology improvement programme* of the then Agriculture Input Corporation with coordination with Lumle Agricultural Centre, and Pakhribas Agricultural Centre.

Japanese volunteers under the Japan International Co-operation Agency (JICA) and with a nutrition programme supported by UNICEF were also mobilized through the promotion of kitchen gardens.

Over the course of this period, fresh vegetable production increased by 90 percent reaching approximately 1 200 000 tonnes by 1993-94 while productivity per hectare increased by 60 percent.



Beneficiary showing good production of vegetable @ FAOERCU

Commercial vegetable production had significantly increased with more farmers using improved varieties or promising local varieties. Vegetable imports from India had also been partly replaced by domestic produce. By the completion of these projects, 28 superior vegetable varieties were identified through adaptive research and the projects helped to increase seed production from 37.6 t in 1984 to 69.5 t in 1987.

2.2 Agricultural marketing

Since at the time the agricultural development in Nepal was primarily production-focused and farmers were least informed about market opportunities, at the request of the Government of Nepal, through the financial assistance of UNDP, FAO provided a Chief Technical Adviser cum Market Information Expert for the project NEP/85/015 *Improvement of food and agricultural market information system and transparency* in 1987.

Ending in July 1991, the project contributed towards strengthening the institutional capability for timely collection, compilation, analysis and dissemination of marketing information in readily usable and understandable form for producers, consumers, intermediaries and policy-makers alike.

The following two projects were also implemented in the second half of the 1990s to promote proper marketing mechanisms:

Support to a new Kalimati market (NEP/91/035), June 1995 to September 2000, \$962 300

Small marketing infrastructure (NEP/89/004), March 1995 to June 2000, \$3 572 000

These projects supported the management of a newly established vegetable wholesale market in Kathmandu and establishing and strengthening 19 farmer managed vegetable collection centres that fed to the Kathmandu market and markets in the urban centres of the Central and Western regions.

After a gap of some years, direct FAO technical assistance was provided to the government through a Technical Cooperation Programme project TCP/NEP/3104, *Capacity building in agricultural marketing and market management*.

This TCP project began operations in 2008 and was completed 2009. It aimed to increase the income of farmers and others in rural areas as a result of greater efficiency in agricultural marketing systems. For that end, it implemented activities in order to improve the capacity of market managers, market management committees, market centre staff, government officials, agricultural extension workers and staff of non governmental organizations (NGO) to offer support in agricultural marketing and related topics to farmers and traders through provision of market information. A number of training guides or manuals covering market planning market management, agricultural marketing, post-harvest handling, and farm management were also produced.

2.3 IPM

An outbreak of Brown Rice Hopper was detected in rice at Chitwan district in early 1996. To address this issue with least disruption to the environment and human health, the 'farmer field school'-concept of training farmers was introduced into Nepal by FAO as a pilot programme for IPM in rice in May 1997. A season long Farmer Field School (FFS) approach was conducted through TCP/NEP/6712 *Implementation of Integrated Pest Management in rice*. This was followed by Nepal's participation in the FAO

Regional Programme on Community IPM in Asia between 1998 and 2002 funded by the Government of Norway. During this period hundreds of government field officers, extension agents and farmers were trained as 'trainers in IPM' in rice and vegetables. More than 15 000 farmers were trained through 633 FFSs.



Field Practice

Due to the success of IPM in rice, demands for FFS in other high value crops rose. Consequently *Support to the National Integrated Pest Management Programme* was launched in 2003 with financial support by the Government of Norway for which FAO provided technical assistance through UTF/NEP/055/NEP *Support to the National IPM in Nepal*. By the time it completed in 2008, substantial institutional capacity had been developed in the nation. As an immediate follow-up to the project, Norway provided financial support to the government for a 2008-2013 project. FAO is providing technical assistance through UTF/NEP/059/NEP *Support to National IPM Programme in Nepal: consolidation, up-scaling and institutionalization, Phase II*. The major objective of the project is to strengthen the organizational and managerial capacity of IPM farmer groups/associations.

2.4 Community and leasehold forestry

The commencement of community forestry started simultaneously in 1977 with financial support from the World Bank and technical support by FAO. FAO employed expatriate experts since at that time community forestry

had not taken shape in the country except in few patches in Sindhupalchowk and Kavre, where it had been started on initiatives by local district forest offices without much policy support.

FAO advocated participatory group approaches to community forestry with studies, piloting and developing procedures. A management plan was prepared for each of the sites, and these management plans prescribed mandatorily and contained main points for improvement of forest patches.

With a total budget of over \$9.7 million, the following eight community forestry projects were implemented with FAO assistance in Nepal from 1977 to 1992:

Mountain forest management for community development, TCP/NEP/6704, \$22 000

Multiple use mountain forestry development, TCP/NEP/6801, \$87 400

Terai community forestry development, TCP/NEP/0051, \$233 000

Technical assistance to Terai forestry project, UTF/NEP/038/NEP, \$1 664 500

Development of income and employment through community forestry, GCP/NEP/042/SWE, \$502 300

Multiple use mountain forestry development, NEP/78/002, \$57 000

Community forestry development (Main phase), NEP/80/030, \$2 783 800

Community forestry development, NEP/85/017, \$4 230 000

Even though community forestry had reached impressive results by 1997, leasehold forestry was still a new phenomenon. The Forest Act (1993) and Forest Rules (1995) provided for leasing of areas of degraded forest land to communities for an extendable period of 40 years with exclusive right to the produce of the land.

In January 1991, the government and the International Fund for Agricultural Development (IFAD) signed a loan agreement for the *Hills leasehold forestry and forage development project* (HLFFDP) for which FAO was requested to provide technical assistance through

financial support from the Government of the Netherlands.

HLFFDP was implemented jointly by the Department of Forestry (DoF), the Department of Livestock Services (DLS), the Agricultural Development Bank of Nepal (ADB/N) and the Nepal Agricultural Research Council (NARC).

The project was implemented in two phases: a three-year exploratory phase and a five-year development phase. The development objective of the project was to improve the living conditions and incomes of families below the poverty line in the project areas by leasing blocks of degraded lands and barren forest lands to small groups of poor farmers.

During the project period from 1992 to 1999, about 7 000 ha of degraded forests lands had been handed over to 1 660 leasehold forestry groups consisting of more than 11 000 socio-economically disadvantaged families.

List of FAO assisted leasehold forestry projects in Nepal during 1977-1992:

Technical assistance to the hill leasehold forestry and forage development programme, GCP/NEP/049/NET, November 1991 to October 1997, \$2 494 700

Technical assistance to the hill leasehold forestry and forage development project (Phase II), GCP/NEP/052/NET, November 1997 to July 2001, \$2 888 000

Institutional and technical capacity building in support of leasehold forestry, TCP/NEP/3102, July 2007 to June 2009, \$300 000

Technical assistance support for leasehold forestry and livestock programme, GCP/NEP/062/FIN, July 2009 to June 2014, \$3 546 500

2.5 Aquaculture

Under a boat building programme, FAO assigned a master boat-builder to Nepal for one year from November 1976 to October 1977 to set up and operate a boatbuilding training programme for three lakes in Pokhara to replace the existing dugout canoes with boats more suitable for fishing. A total of 21 boats was build.

In 1978, another FAO supported project aided the collection of data related to limnology, fish biology and fish catches to assist in the management of the fisheries and help increase fish production from the Pokhara Valley in Nepal. A field laboratory was also established and counterpart staff and assistants were trained during the project period.

An FAO-supported study called *Establishing fish receiving/distribution centres in Nepal* conducted in 1979 described the assembling and placing in operation of cool chambers and other equipment as a first step in establishing a “cold chain” between main fish production and consumer centres as the increasing demand for fish by the people of Nepal and by increasing numbers of tourists was not met, partly because of inadequate marketing facilities.

Another report, *Cage culture of fish in Nepal*, prepared by FAO in 1980 aided in introducing the practice of culture of fish in cages to private fishing communities by describing technical and economic aspects. A variety of cages were tried and their relative advantages and disadvantages and costs provided.

FAO continues to support the aquaculture sector of Nepal as evidenced by the implementation of the current TCP project *Improving national carp seed production system in Nepal* to address the problems associated with degraded quality of carp seed, poor broodstock management and inbreeding depression.

2.6 Policy support

Over the last decades, FAO has extended policy support to the government – for periodic national plans and area specific support.

The 2004 project *A Review of the agricultural policies and legal regime in Nepal* (TCP/NEP/0165) is an example of such work, as well as FAO’s contributions to policy instruments (Agriculture related Acts) and *Implications of the WTO Membership on the Nepalese Agriculture, 2004*.

More recently FAO has embarked on the formulation of a *National Medium-Term Priority Framework* (NMTPF) otherwise known as Country Programming Framework, to support objectives related to food security and

agriculture development. In so doing, FAO is undertaking sector studies to bridge the gap of knowledge in some areas as identified during a stakeholders workshop – organized jointly by the National Planning Commission, MOAC and FAO in August 2009.

The NMTPF/CPF will guide Nepal-FAO cooperation for the next three to five years and will also contribute to the next cycle of the United Nations Development Assistance Framework (UNDAF). Perhaps unique to Nepal, the government requested FAO assistance to prepare a National Agriculture Sector Development Priority for the medium term as an input to Nepal’s Three-year Plan (2010/11-2012/13) as well as to the NMTPF.

This framework has identified eight interrelated priority areas. Some of them are cross-cutting while food and nutrition security is the overarching priority. Other relevant areas are the promotion of policies, laws, rules and regulations that encourage increased investment in agriculture and enhance institutional capacity to improve service deliveries. support to market orientation of agriculture and its competitiveness, sustainable conservation and utilization of natural resources, and biodiversity including improvement in climate change adaptation and disaster preparedness, expansion and improvement of infrastructural facilities, integration of gender issues, and mitigating the effects of migration of the rural youth and agricultural laborers.

Presently FAO is providing technical assistance in formulating an *Agriculture Development Strategy* (ADS) with a 20-year vision and a 10-year planning horizon. ADS is expected to guide Nepal’s agriculture development for the coming decades. Similarly, FAO is supporting the government to formulate a *National Food and Nutrition Security Plan of Action* which will be an integral part of ADS, and will contain a menu of project/programme activities for achieving food and nutrition security in the country.

2.7 Emergency operations

The overall goal of FAO’s emergency and rehabilitation programme in Nepal is to improve food and nutrition security through the resumption of traditional agriculture and livestock production, while enhancing knowledge and awareness of good nutritional practices.

These emergency operations support the government and cooperate with donors and other development partners to combine immediate response with efforts to build longer-term durable outcomes through strengthening local and national capacities for preparedness. They are also supporting a wide spectrum of disaster risk management approaches.

A main emergency operations programme is implemented by FAO with funding provided from the EU Food Facility programme (EUFF) in Nepal. This programme aims to enhance food security of farmers by delivering a broad range of inputs and technical assistance to improve crop and livestock productivity and reduce livelihood vulnerability. It targets most vulnerable farming families by ensuring their access to improved fertilisers and seed, and distributing livestock. Also, in times of natural disasters like floods and landslides, the programme provides quick response for recovery of agriculture-based livelihoods.

The following are the current emergency operations in the country:

Support to mitigate the negative effects of high food prices on local rural population in 10 districts of Nepal, GCP/NEP/065/EU, May 2009 to June 2011, US\$10 960 034. The project's overall objective is to enhance the food security of 180 333 farming households and mitigate the effects of soaring food prices through the provision of improved quality seeds of staple crops (cereals), vegetables and pulses. In addition, it seeks to reinforce the capacity of the MoAC, especially its extension services, and of the government of Nepal to improve food security and nutrition monitoring capabilities.

FAO through the Emergency Centre for Transboundary Animal Diseases Operations (ECTAD) has been assisting the government in strengthening capacities to control and contain transboundary animal diseases, such as Highly Pathogenic Avian Influenza (HPAI), in order to minimize the impact of the disease and improve livelihoods of the farming community.

For this, ECTAD works to develop cross-border strategies and approaches for improvement of overall surveillance in different subsectors of the disease. It even ensures that standardised procedures are undertaken for the inspection of poultry and poultry product at border so that the transmission of disease can be controlled.

Immediate technical assistance to strengthen emergency preparedness for Highly Pathogenic Avian Influenza (HPAI) in Nepal, OSRO/RAS/605/US, July 2006 to September 2011, US\$215 000. The overall objective is to address the urgent short-term actions that are to be undertaken by the countries in the region to strengthen its capacity in order to rapidly detect the introduction of HPAI into the country and minimize its spread in the case of its occurrence. Achieving this goal will significantly reduce the threat of pandemic influenza and help safeguard the livelihoods of the rural and peri-urban population.

Technical assistance for implementation of the Avian Influenza preparedness programme, UTF/NEP/061/NEP/B, June 2008 to July 2011, US\$2 392 743. The main aim of this project is provide technical support to the Department of Livestock Services for the preparedness of Avian Influenza through procurement of general materials and supplies and management of rapid response fund.

Improvement of regional capacities for the prevention, control and eradication of highly pathogenic and emerging diseases (HPED) including HPAI in ASEAN and SAARC countries, OSRO/RAS/901/EC, December 2009 to December 2013, US\$11 524 190. The general objective of the programme is to contribute to the strengthening and empowerment of SAARC in its ability to prevent, control and eradicate HPED, including HPAI, through improved veterinary and public health services and intersectoral collaboration on a regional basis.

Success stories

1. Mr Naina Bahadur Lo expects 40 to 60 percent boost in production

“Earlier we harvested 60 to 70 baskets maize and this year we expected more than 100 baskets,” Naina Bahadur Lo told us when we visited him at his place at Salle of Bastipur – 6, Sindhuli.

Mr Bahadur produced and sold three baskets of cucumber from the summer vegetable composite packets received from FAO. He was very happy with the increased maize production and an additional income from the cucumber.

This year FAO distributed under a European Union Food Facility funded project da huge quantity of improved seeds of maize, rice, vegetable and fertilizer to over six thousand households in Sindhuli.



Naina Bahadur and his fellow farmers were successful increasing production of maize and producing different types of vegetables. He not only sells the vegetables in the markets but sometimes also shares with his neighbours and relatives.

Mr Bahadur cultivated okra for the first time and exclaimed that it made wonderful combination with nettle soup. He is contented that other vegetables like

chilly, bitter gourds and brinjal are also flowering now. He has already transplanted rice which is distinctly better. He is pleased learning improved cultivation practices through informal demonstrations organized by FAO through the field-based technicians of its implementing partner. These technicians are encouraging and supporting farmers in selection and storage of seeds. Naina Bahadur Lo has 7 ropani of Khet land and 9 ropain of Bari land. This hardly supports feeding his family of 9 members throughout the year; however, this year maize is better; therefore, it will be easy for him feeding family.

Already in his 60s, Naina Bahadur is quite happy with these development efforts in the village. He bought a buffalo with support from PAF (Poverty Alleviation Fund). He furthermore received rice and pulse from WFP for his involvement in reconstructing the trail to Satdobato. He is quite pleased receiving a complete package of seeds and fertilizers from FAO.

He told us, “I do not need to by more foods, buying only salt and oil is enough now”. We see lots of rays of hopes in the life of Nain Bahadur.

2. Starting vegetable collection centre at Mudali VDC of Parsa district

National Cooperative Federation (NCF) is an umbrella organization of district cooperative unions of all over Nepal. Various capacity building trainings and exposure activities had been implemented through the partnership of National Cooperative Federation Ltd (NCF) under FAO-Nepal Jobs for Peace Programme (JfP) for 16 cooperatives of Parsa district and 14 cooperatives of Rautahat district.

Cooperatives have been recognized as a strong community based organizations for social, economical, and cultural development of the poor and disadvantaged group. JfP supported local youth led cooperatives to work as model cooperative.

New Jivan Jyoti Saving and Credit Cooperative Ltd (NJJSCCL) in Mudli VDC of Parsa District is one of the selected cooperatives to function as a model vegetable

collection centre that provides service to its members in producing fresh vegetables and marketing their produce to near-by markets. NJJSCCL is providing saving and credit activities in the VDC serving about 250 members (140 men and 110 women) of the VDC since 2001. The cooperative is operated and managed by an innovative and energetic group of youths of the VDC. The loan is provided to its members for various agriculture activities such as vegetable production, buffalo farming, goat keeping, small groceries.

The co-operative has been actively participating in institutional capacity building, trainings and exposure activities implemented by NCF such as cooperative facilitator training, leadership development training, business plan preparation training, cooperative education to the members, account management training, agro-enterprise development training, gender sensitive participatory local development planning etc. The cooperative has enrolled about 60 disadvantaged youths in the saving and credit activities after contact was established with the Jobs for Peace Programme/FAO Nepal.



Farmers weighing their fresh vegetable at a vegetable collection centre in Parsa District

During consultations between the organization's members and staffs from the Jobs for Peace Programme/FAO Nepal, it was discussed that more than 90 percent of the members are farmers. They are engaged in vegetable production as their income generation and livelihood activities. District Agriculture Development Office, Parsa

has recognized the VDC as vegetable production pocket area. There is bulk production of seasonal vegetable crops such as cabbage, cauliflower, radish, bottle guard, sponge guard, okra, tomato, potato, chilly, and leafy vegetables that are sold in a local market near the village.

The cooperative also established a vegetable collection centre to link the products to the traders of Birgunj, a larger market about 25 km from the village. The cooperative could then easily start marketing the fresh vegetable to Birgunj. With this initiative farmers are getting some relief from the worst situation of throwing their fresh vegetable products to cattle and are encouraged to increase the area of production of fresh vegetable crops for selling and self consumption. This initiative has been a firm step towards vegetable commercialization of the VDC.

3. Leasehold forestry

(Text extracted from the script of the FAO documentary *Towards food security – Stories from Asia and the Pacific*)

In Nepal, previous government policies on forests left villagers with no stake in protecting this vital natural resource. Among the results were deforestation, barren land and poverty.

In 1992, the government of Nepal changed course with assistance from the FAO and the International Fund for Agricultural Development.

Communities were given the right to manage the forests and reap the benefits under an expanded programme of leasehold forestry. Deforested land was leased to villagers so they could grow grasses, orchards and trees.

Urumya: "The Forest Office provided us with fallow land for work and seeds. We did not cut the grass for a year. It was amazing the next year. The grass was so plentiful we did not know what to do with it."

Villagers harvested the grasses to make a variety of products that could be sold for income such as brooms and wicker baskets. But mostly, the grasses provide fodder for the feeding of goats and other livestock. Excess fodder was sold for income.

Goats also provide communities with milk, helping to raise nutrition levels, especially among children. And with families earning extra income, they could now afford to take their children out of the fields and send them to school.

Gopal Nepali (dalit or untouchable): “We were very poor in the past and did not have money to even buy a ballpoint pen. Then we started earning income from the leasehold forestry programme. Now I am sending my seven children to school with no problems.”

Villagers are now also growing fruits trees, such as pineapple and bananas. A few are even growing herbs such as cardamom. Some are growing trees that will eventually yield timber.

Tularam Ghimire: “There are two objectives of the programme. The first is improving the economic situation of poor farmers. The second is improving the environment. The twin objectives have brought drastic improvement to the forest. The previously fallow land is now filled with grass and trees.”

Other improvements have also been seen. Villagers learned to pool their savings into micro-credit groups that provide loans so the poorest members will have capital.

The involvement of women in the programme has raised their status in the community. And the ability to earn a living and contribute to society has helped tear down caste barriers.

Gopal Nepali: “Since joining the programme we are able to take part in meetings and feel that we reached the status of higher caste people. I feel the programme is good for poor people, as it brings us income and helps to change society.”

4. FAO honours model farmer from Nepal

18 Oct 2010 — Bangkok – Today, Her Royal Highness Princess Maha Chakri Sirindhorn presented FAO awards to four Asian farmers from Nepal, the Republic of Korea, Thailand and Timor-Leste for outstanding achievements.



Laxmi Tamang, a female model forester from the Federal Democratic Republic of Nepal.

Laxmi Tamang is a vivacious fighter who instinctively keeps her eyes on the prize. Born into a landless family from the foothills of the Himalayas in Nepal in 1977, she was sent to work at the age of seven in a handloom carpet factory with her half-sister. For nine years she wove carpets with no opportunity for schooling.

When Laxmi returned home at 16 her father asked her to get married. He was suffering from cancer and wanted to assure his daughter’s future. But, Laxmi had other ideas.

She learned to sew and soon opened a small tailoring shop in Charikot bazaar, not far from home. Soon she realized few women could afford her tailored clothes and life remained a struggle. Her father passed away when she was 21 and soon after, the thatched roof of the house she shared with her mother and six brothers and sisters caught fire and was seriously damaged.

Laxmi calls these hard times “my troubles” and remembers it was during these dark days that government extension workers came to the village to explain a new programme.

Previous forestry policies had left the landless villagers with no rights to local forest areas, which were claimed by another caste. This policy had resulted in deforestation, barren land and widespread poverty. Now, the extension workers explained the government was going to change the policy with help from FAO and the International Fund for Agricultural Development.

The government would lease deforested land to the villagers so they could grow grass, orchards and trees. The community came together and formed a group to manage the forest. They elected a Chairperson and Laxmi as their General-Secretary.

The group now harvests grasses from the forests. They make brooms and wicker baskets to sell, but mostly the grasses provide fodder to feed goats and other livestock.

"I see the forest becoming greener and the community is prospering and growing cash crops like ginger, cardamom and turmeric," Laxmi says. "Some people are growing fruit trees and selling fodder and seeds."

Laxmi has been able to replace her burnt thatch roof with a metal one. She has 100 chickens and earns 10 000 to 20 000 Rupees from selling chicks. She has also become a prosperous goat farmer and owns two buffalo.

The community group pooled their savings into a microcredit account that provides incentivized loans. A family borrowing to invest in farming activities, or to send their children to school can borrow more money at a lower interest rate than someone buying a television.

"My only regret is that I could not be educated at a young age," says Laxmi. While she is now attending adult education classes, it is her dream to send younger brothers and sisters to schools too.

The award ceremony was part of today's Asia-Pacific observance of World Food Day – the 65th anniversary of FAO's foundation in Quebec, Canada on 16 October 1945.

HRH Princess Maha Chakri Sirindhorn presided over the ceremony. The Thai minister of agriculture and cooperatives, other senior Thai government officials, Bangkok based members of the diplomatic corps, UN organizations and civil society were in attendance.

A keynote address "United against hunger" was delivered by Dr Surin Pitsuwan, Secretary-General of the Association of Southeast Asian Nations.

List of selected projects

Title	Symbol	EOD	NTE	Budget (\$)
Field Training in Vegetable Seed Production	TCP/NEP/6701	1977	1978	138 000
Assistance to the Chaur Jahari Project	TCP/NEP/6702	1977	1978	50 000
Training in Methods of Hill Area Irrigation	TCP/NEP/6703	1977	1978	95 000
Mountain Forest Management for Community Development	TCP/NEP/6704	1977	1978	22 000
Multiple Use Mountain Forestry Development	TCP/NEP/6801	1978	1978	87 400
Fertilizer Distribution Improvement and Training Project	TCP/NEP/8803	1979	1979	92 000
National In-Service Training on Agricultural Project Analysis and Rural Development Planning	TCP/NEP/8802	1979	1979	88 000
Forestry Development	NEP/80/030/ /01/12	1980	1991	2 740 882
Strengthening Agricultural Credit Planning (Rastra Bank)	TCP/NEP/0002	1982	1983	111 000
Development of a Management Information System for the Nepal Food Corporation	TCP/NEP/0003	1980	1981	47 000
Support to Small Farmers/Tenants Through Cooperatives	TCP/NEP/0104	1981	1981	15 000
Development of Home and Village Industries Using Jute Fibre	TCP/NEP/0105	1981	1983	34 000
Rural Save Grain Programme	TCP/NEP/0106	1982	1983	168 000
Introduction of Improved Indigenous Machines and Equipment at Village Level	TCP/NEP/0107	1982	1983	49 000
Development and Promotion of Jute Sector	TCP/NEP/2201	1983	1983	65 313
Crop Forecasting, Early Warning and Agriculture Statistics	GCPS/NEP/036/JPN	1983	1993	633 720
Improving Productivity of Acid Soils by Lime Application	TCP/NEP/2304	1983	1984	97 480
Emergency Assistance to Drought Affected Regions in Nepal	TCP/NEP/2305	1983	1985	176 896
Rural Save-Grain Programme -Bridging Assistance	TCP/NEP/2307	1983	1984	27 335
Nepal Terai Forestry	UTF/NEP/038/NEP/C	1985	1996	1 987 985
People's Participation in Rural Nepal	GCP/NEP/039/CPR	1985	1994	115 919
Population Education for Farmers Through Ministry of Agriculture	FPA/NEP/009/FPA	1985	2000	92 193
Livestock Production and Marketing	NEP/85/031/ /38/45	1985	2000	532 630
National Sample Census of Agriculture	NEP/81/008/ /01/12	1985	1991	555 035
Population Education through Small Farmers Development Programme	FPA/NEP/010/FPA	1985	1995	120 550
Agricultural Communication Services	NEP/85/005/ /01/12	1988	1999	968 377
Demonstration and Training in Water Turbine Pump Installation and Operation for Crop Production and Processing	TCP/NEP/4503	1985	1986	52 070
Planning Assistance to the Ministry of Agriculture	TCP/NEP/4504	1986	1987	218 111
National Parks	NEP/85/011/ /01/12	1986	1992	626 946

Title	Symbol	EOD	NTE	Budget (\$)
Soil and Water Conservation and Watershed Management	NEP/85/008/ /01/12	1986	1994	2 242 324
Control of Rinderpest in South-Western Nepal	TCP/NEP/6651	1986	1987	31 267
Strengthening of National Remote Sensing Centre strengthening	TCP/NEP/6652	1987	1988	185 000
Planning and Monitor Capability of the Ministry of Supplies	NEP/85/003/ /01/12	1987	1995	854 800
Pasture and Fodder in the High Altitude Zone	NEP/85/007/ /01/12	1987	1992	630 572
Food Corporation Management	NEP/86/032/ /01/12	1987	1992	673 474
Assistance in Strengthening the Intensive Banking Programme	TCP/NEP/6753	1988	1989	258 500
Fresh Vegetable and Vegetable Seed Production (Phase III & IV)	GCP/NEP/043/SWI	1987	1999	4 946 297
Development of Income and Employment Through Community Forestry	GCP/NEP/042/SWE	1988	1993	501 863
Forestry Development	NEP/85/017/ /01/12	1988	1995	2 400 604
Agricultural Planning Support	NEP/87/010/ /01/12	1988	1993	690 652
Agricultural Census	NEP/88/024/ /01/12	1988	1995	861 479
Food and Agricultural Market Information System	NEP/85/015/ /01/12	1988	1993	623 983
Aquaculture Development in Terai	NEP/85/034/ /38/45	1988	1996	456 777
Aquaculture Development	NEP/79/030/ /38/45	1988	1996	327 272
Vitamin A Deficiency Control on Education Sectors	TCP/NEP/7851	1988	1988	87 000
Strengthening Facilities for Food Control and Consumer	TCP/NEP/8852	1988	1989	163 000
Bacteria Collection and Inoculant Technology Development	TCP/NEP/8853	1989	1991	155 000
Sericulture Development	TCP/NEP/8854	1988	1989	53 000
Feasibility Study for New Cheese Factories in Mountain Areas	TCP/NEP/8855	1989	1989	68 000
Enhancing the Productivity of Rural Women for Food Security	GCP/NEP/044/NOR	1989	1997	1 373 437
Strengthening the Agricultural Tools Factory at Birgunj	TCP/NEP/8956	1989	1991	173 800
Increased Crop Production in The Hills Through Fertilizers	GCPF/NEP/030/NET	1989	1996	2 593 584
Rural Save Grain Programme	GCPP/NEP/037/AUL	1989	1994	1 199 823
In-Service Training Agricultural Project Analysis (Phase II)	GCP/NEP/035/SWI	1989	1994	1 740 636
Shivapuri Watershed Management and Fuelwood Plantation (Phase I)	GCP/NEP/041/NOR	1989	1995	1 532 734
Terai Community Forestry Development	TCP/NEP/0051	1990	1990	233 000
Training in Nutrition for Prevention of Vitamin A Deficiency	GCP/NEP/046/NET	1990	1996	551 013
Hills Leasehold Forestry, Forage and Livestock Development	GCP/NEP/049/NET	1991	1997	2 494 730
Field Programme Review and Programming Mission	TCP/NEP/0152	1991	1992	197 000
Agro-Industries Pre-Investment Studies	TCP/NEP/0153	1991	1991	21 000

Title	Symbol	EOD	NTE	Budget (\$)
Preparation of Agro-Industrial Investment Profiles	TCP/NEP/0154	1991	1992	52 000
District Agricultural Planning	NEP/92/012/	1992	1995	80 455
Planning for Sustainable Agriculture and Natural Resource Development	TCP/NEP/1251	1992	1993	142 000
Shivapur Integrated Watershed Development Project (Phase II)	GCP/NEP/048/NOR	1992	1999	2 088 032
Agricultural Tools Factory (Phase II)	TCP/NEP/2252	1992	1992	37 000
Agro-Ecological Zones Study	NEP/92/01T/ /08/12	1992	1993	144 221
Dairy Development Training, Eastern Region	TCP/NEP/2253	1993	1994	199 000
Emergency Supply of Winter Crop Seeds	TCP/NEP/2254	1992	1993	230 000
Policy Review and Project Development Facility	NEP/91/003/ /01/12	1993	1993	40 922
Strengthening Fish Disease Diagnosis	TCP/NEP/2355	1993	1994	182 000
Formulation of National Agricultural Extension Strategy and Implementation Programme	TCP/NEP/2356	1993	1994	101 000
Emergency Supply of Winter Crop Seeds for Flood & Landslide	TCP/NEP/2357	1993	1995	230 000
Development of a Programme for Agenda 21	NEP/94/01T/ /08/12	1994	1995	104 000
Incorporating Nutritional Concerns in Agricultural Planning	NEP/94/02T/ /08/12	1994	1995	77 500
Support for the Development of a National Biogas Programme	TCP/NEP/4451	1995	1997	127 869
Strengthening the Documentation Services of the Nepal Agricultural Research Council	TCP/NEP/4452	1995	1997	135 000
Emergency Supply of Winter Crop Seeds to Drought Affected Farmers	OSRO/NEP/401/UK	1994	1997	232 500
Kalimati Wholesale Market	NEP/91/035/ /01/12	1994	2000	998 667
Support to a New Kalimati Market	NEP/91/035/ /09/12	1994	2000	89 775
Emergency Supply of Vegetable Crop Seeds to Drought Affected Farmers	TCP/NEP/4453	1994	1995	113 000
Small Marketing Infrastructure (NEP/89/C04)	UNTS/NEP/001/CDF	1995	2000	1 128 655
Fresh Vegetable and Vegetable Seed Production (Phasing Out)	GCP/NEP/050/SWI	1995	1996	376 290
SPFM Nepal	SPFM/NEP/4501	1995	1996	94 371
SPFP – Nepal	SPFP/NEP/4501	1995	1999	790 542
Enhancing Private Sector Investment in Small and Medium-Scale Rural Agro-Industry	TCP/NEP/4555	1995	1997	332 000
Improving Information on Women's Contribution to Agricultural Product for Gender Sensitive Planning, Nepal	GCP/NEP/051/NOR	1995	1999	123 272
Improvement of Seed Quality Control Services	TCP/NEP/6611	1996	1998	251 400
Implementation of IPM in Rice	TCP/NEP/6712	1997	1999	318 000
Assistance to the Development of Olive Production	TCP/NEP/6713	1997	1999	316 700
Hills Leasehold Forestry Programme (IFAD Funded) – Phase II of GCP/NEP/049/NET	GCP/NEP/052/NET	1997	2001	2 019 766

Title	Symbol	EOD	NTE	Budget (\$)
Master Plan for Agricultural Marketing in Kathmandu Valley	TCP/NEP/8921	1999	2000	158 000
NISP – On-Farm Water Management Subcomponent – Nepal	UTF/NEP/053/NEP	1999	2004	822 484
Poverty Alleviation and Sustainable Household Food Security	NEP/99/023/ /08/12	2000	2003	111 000
Assistance in the Review of Agriculture Policy and Legislation	TCP/NEP/0165	2001	2003	73 287
Implication of WTO Membership on Nepalese Agriculture	NEP/01/013/ /08/12	2002	2003	132 200
Purchase of ELISA Kit	UTF/NEP/054/NEP	2002	2003	25 640
Capacity Building for Fodder Oat Technologies in Nepal	TCP/NEP/2901	2003	2005	246 403
Protection against Rinderpest and Other Major Diseases of Farm Livestock through Emergency Preparedness Planning and New Vaccine Technology	TCP/NEP/2902	2003	2005	356 983
Strengthening Plant Quarantine Services	TCP/NEP/2903	2004	2005	363 575
Assistance in the Review of Agricultural Policy and Legislation (Phase II of TCP/NEP/0165)	TCP/NEP/2904	2003	2004	83 920
Support to the National Integrated Pest Management Programme in Nepal	UTF/NEP/055/NEP	2004	2008	1 424 425
Promotion of Olive Production and Consumption in Nepal	GCP/NEP/056/ITA	2005	2009	1 042 417
Enhancement of Food Security and Poverty Alleviation through Improved Institutional Capacity of Agricultural Cooperatives	TCP/NEP/3001	2005	2007	288 000
Technical Assistance to the Community Livestock Development Project (CLDP)	UTF/NEP/057/NEP	2007	2010	2 171 237
Crop and Food Supply Assessment Mission in Nepal	GCP/NEP/058/UK	2007	2007	32 000
Training for the small-scale dairy sector in support of the community livestock development project	TCP/NEP/3103	2007	2009	372 000
Institutional and technical capacity building in support of leasehold forestry	TCP/NEP/3102	2007	2009	300 000
Capacity Building in Agricultural Marketing and Market Management	TCP/NEP/3104	2008	2009	382 000
Urgent Food Security Assistance to Vulnerable Farming Families	OSRO/NEP/802/CHA	2008	2008	400 000
Strengthening the capacity of government officials responsible for food safety, animal and plant health, and agricultural trade in Nepal to effectively implement SPS measures and related trade obligations	MTF/NEP/060/STF	2008	2010	390 290
Dairy cattle improvement	TCP/NEP/3105	2008	2009	357 914
Strengthening capacities for disaster prevention and Preparedness and Climate Risk Management in the Agricultural Sector	TCP/NEP/3201	2008	2010	470 000

Title	Symbol	EOD	NTE	Budget (\$)
Technical Assistance for implementation of the Avian Influenza Preparedness Programme	UTF/NEP/061/NEP/B	2008	2011	2 392 743
Emergency assistance to improve food and nutrition security of vulnerable rural communities affected by internal conflict, flood and drought in Nepal	OSRO/NEP/801/SPA	2008	2009	1 392 758
Input supply to vulnerable populations under ISFP	TCP/NEP/3202	2008	2009	500 000
Translation of HIV/AIDS resource guide for extension workers into Nepali and Research to examine the linkages between HIV/AIDS, agriculture and food insecurity in Nepal (PAF 2006-2007)	UNTS/NEP/001/AID	2008	2009	61 500
Emergency livestock support for flood affected farmers	OSRO/NEP/804/CHA	2008	2009	205 698
Support to the National IPM Programme-Consolidation, up-scaling and Institutionalization, Phase II	UTF/NEP/059/NEP	2008	2013	3 400 000
Emergency coordination and input support for the immediate recovery of crop sector in flood affected areas – (SIDA component n.5204000201)	OSRO/NEP/805/SWE	2008	2009	366 600
Support to Improve Access to Agricultural Production Inputs and Support Services in Nepal	OSRO/NEP/806/CHA	2008	2009	899 998
Jobs for peace: 12,500 youth employed and empowered through an integrated approach	UNJP/NEP/004/UNJ	2009	2011	804 215
Support to mitigate the negative effects of high food prices on local rural populations in ten districts in the Eastern, Central Mid-Western and Far-Western regions of Nepal	GCP/NEP/065/EC	2009	2011	11 171 041
Technical Assistance Support for Leasehold Forest and Livestock Programme	GCP/NEP/062/FIN	2009	2013	3 546 500
Enhancing Capacities for Climate Change Adaptation and Disaster Risk Management for Sustainable Livelihoods in the Agriculture Sector	UNJP/NEP/005/UNJ	2009	2011	252 555
Emergency Support and Input Provision to Households Affected by Floods in Mid-Western and Far-Western Nepal	OSRO/NEP/901/CHA	2009	2010	80 946
Dairy Cattle Improvement – Phase II of TCP/NEP/3105	TCP/NEP/3204	2010	2010	25 220
Piloting Land Registration and Preliminary Land Management Intervention in Selected Part of Achham District	UNJP/NEP/066/UNJ	2010	2011	50 000
Combating Citrus Decline Problem in Nepal	TCP/NEP/3302	2010	2012	303 000
Improving national carp seed production system in Nepal	TCP/NEP/3303	2010	2012	330 000

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