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APPLICATION FORM FOR JAPAN'S TECHNICAL COOPERATION

- 1. Date of Entry:** July 2009
- 2. Applicant:** Ministry of Agriculture and Cooperatives, Government of Nepal
- 3. Project Title:** High Value Agriculture Extension and Promotion Project in Sindhuli Road Corridor
- 4. Contact Point (Implementing Agency):** Department of Agriculture under Ministry of Agriculture and Cooperatives
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5. Background of the Project

(1) Current Condition of the Sector

Agriculture is the mainstay of the Nepalese economy, providing a livelihood for three-fourths of the population. Although the share of agriculture in gross domestic product (GDP) has been declining from about 49 percent in 1990/91 to 33.1 percent in 2007 (MOF, 2007), it is still the largest single sector of the economy. Besides being a major source of food, this sector is vital for the growth and development of the industrial and export sectors since both of these sectors are agriculture based.

A recent World Bank and Central Bureau of Statistics (CBS) Report, however, rated contribution of agriculture modest in reducing incidence of poverty in Nepal for the reasons given below:

- a) While most of Nepal's poor live in rural areas and depend on agriculture for their income, food supply and livelihoods, the incidence of poverty declined in rural areas from 43 to 35 percent, or a decline of 2.7 percent a year between 1995/96 and 2003/04. On the other, in urban areas, it was more than halved (from 22 percent to 10 percent, or a decline of 9.7 percent a year) during the same period.
- b) Agriculture sector growth has been erratic, poor not enough to make a major impact on poverty reduction (3.3% annual growth during the Ninth Plan period against 4.0 percent target).

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- c) The incidence of poverty among the households headed by agricultural wage laborers was almost 56 percent in 1995/96, and it remained high in 2003/04 at 54 percent. The second poorest group after this comprises households by someone who is self-employed in agriculture.
- d) Decrease in average returns to agricultural land, as measured by net returns per hectare or per worker between 1995/96 and 2003/04 despite rising cropping intensity;
- e) Stagnation in crop production due to higher production costs and lower output prices
- f) Despite considerable improvement in access, irrigation remains a key constraint for agricultural growth. The productivity of irrigated agriculture is low.

Agriculture in Nepal is so diverse. With an area of 147,181 sq. km, Nepal is a country of enormous geographical diversity, and is situated in the southern slopes of the central Himalayas. Sandwiched between India on three sides - east, west, and south – and China to the North, Nepal is a land-locked country (CBS, 2003). Nepal is richly endowed with crop diversities. Apart from cereals and cash crops, fruits, vegetables, spices, herbs and other location specific minor crops are grown here.

Physiographically, Nepal is broadly divided into five roughly parallel east-west regions (ecological belts), which from north to south are known as High Mountain, Mountain, Hill, Siwalik and Terai. Map 3.1 shows the map of Nepal. Farming systems in these five regions vary considerably. Although Nepal has five physiographic regions, they are generally characterized into three levels namely, mountain, hill and Terai where mountain includes high mountain and mountain, and Terai includes Terai and Siwalik. Therefore, this report too has described diversity of crops and agro-climatic regions by three categories Mountain, Hill and Terai. Government planning and statistics also follow this characterization - Mountain, Hill and Terai. With altitude ranging from less than 100 m in the Terai to 8,848 m in the High Mountain, there exist different climates and different types of farming systems within Nepal. As a result of these diversities, a wide variety of crops, vegetables and fruits are produced.

(2) Government's development policy for the sector

In Nepal, a 20-year Agriculture Perspective Plan (APP) is in operation since 1997 to accelerate agricultural growth for poverty reduction in a sustainable way. Since 1997 Nepal's agriculture sector has been directed by this long-term plan. Not only did this plan provide a framework to the Ninth Plan (1997/98 – 2002/03) and the just completed

Tenth Plan (2002/03 – 2006/07), so it did to the current TYIP (2007/08 – 2009/10). The Tenth Plan (2002/03 – 2006/07) was Nepal's Poverty Reduction Strategy Paper (PRSP). It identified poverty reduction as the sole goal of the country. Focused on four pillars namely, broad-based economic growth, social and infrastructure development, good governance and targeted programs, it provided a highest priority to the agriculture sector like earlier periodic plans given the sector's pivotal role in the livelihood of the majority of the population.

In 1998, Pocket package strategy (PPS) guidelines approved by the GoN as a part of packages of strategies for implementation of APP provide mechanisms and processes for the identification of production pocket areas. As such the GoN has given a high priority to the horticultural crops and livestock as both of them are two priority outputs of the APP. The criteria for the identification of production pocket areas are given below (Table 1). MOAC has characterized pockets into four types as shown below in Table 2.

Table 1: Criteria for the identification of pocket areas

Type	Criteria
Crop production including horticulture	<ul style="list-style-type: none"> ▪ Area with road access, availability of irrigation, and electricity (all the three elements); ▪ Area with availability of irrigation and road access (two elements except electricity) ▪ Area with irrigation facilities only ▪ Areas with road access only ▪ Other feasible sites (Traditional agricultural areas)
Livestock and livestock originated products	<ul style="list-style-type: none"> ▪ Area with road access and availability of electricity and feed / fodder; ▪ Area with road access ▪ Other feasible sites (Traditional agricultural areas)

Source: PPS 1998

Table 2: Characterization of pocket area by MOAC

Package type	Key elements	Objectives
Basic	Agricultural inputs, agricultural technology and institutional structure	To strengthen food security situation in production pockets in the hills and the mountains
Commercial oriented	Agricultural inputs, agricultural technology, institutional structure, technology, agricultural loan and storage facilities	To enhance production for generating marketable surplus and increase to attain certain economy of scale.

Table 2: Characterization of pocket area by MOAC

Package type	Key elements	Objectives
Commercial	Agricultural loan, agriculture stores, market development and agro-based industries; irrigation, electricity and agricultural roads.	To ensure agricultural commercialization motivating farmers on investment on technology and value addition.
Infrastructure	Irrigation, road and electricity	Focused on ensuring supply of constrained infrastructure such as irrigation, road or electricity.

Source: PPS 1998

In addition, GoN promulgated National Agriculture Policy (NAP) in 2004. NAP presents government's renewed support and commitment to implement APP. Agricultural Perspective Plan (1995-2015), National Agricultural Policy, 2004 and Three Year Interim Plan (2007-2009) all aim to (i) accelerate growth of the agricultural sector through increased productivity, (ii) alleviate poverty through expansion of agricultural sector, (iii) provision of employment opportunities and diversification of agriculture through introduction of high value crops. Establishment of agricultural technology responsive to farmers' needs and its effective extension are proposed as a means of realizing these aims.

In 2006, Agribusiness promotion policy was promulgated. The overall objective of this policy is to enhance the participation of the private sector in the infrastructure development of agricultural market, trade and agro-based industries. This policy aims at diversification, commercialization and promotion of agricultural sector partnering with the private sector. Promulgation of this policy reveals government's conviction that poverty can be reduced through a policy that encourages production of market-oriented and competitive agro-products.

Besides, the Government of Nepal has formally incorporated OVOP concept in the National Program and Budget for the fiscal year 2006/07 and has approved the working procedures for the implementation of OVOP program in Nepal. Sweet oranges, lapsi (unique fruit of Nepal), Rainbow trout fish, and Bel (unique fruit of Nepal) are the products under OVOP Program selected this year. Initial programs have already started in some districts

Further, National Agriculture Extension Strategy 2007, emphasizes the importance of capacity development of extension workers and adaptation of participatory approaches responsive to farmers' needs.

(3) Opportunity in Targeted Area

Government of Japan has been extending Grant Aid to Government of Nepal for construction of the Banepa-Sindhuli-Bardibas road ("Sindhuli Road") since 1996. The road connects Bardibas (Mahottari district) on the East Western Highway and Dhulikhel (Kavrepalanchok district) on Arniko Highway which include the Terai, the grain basket of Nepal and Kathmandu Valley via Dhulikhel including poverty rampant Sindhuli, Ramechhap and Kavrepalanchok districts of the Central Development Region of Nepal. Sindhuli Road connects Kathmandu Valley with eastern Terai of Nepal at Bardibas and becomes most important national highway to connect Kathmandu Valley with Terai region. Section III is expected to be completed after several years, however, rest of Sections have already handed over and maximally utilized by localities and traders.

Sindhuli Road not only just remains as a high way to connect the capital with eastern region, especially Terai, but also contributes to develop the road corridor. As a result of this road, many VDCs have improved their connectivity. Because of the road, people have already begun to experience both the economic and social benefits of improved transport access such as reduction in transaction costs in accessing improved technologies and services, expansion of volume of production of goods and services, improvement in market access, decreased in product prices for consumers; increased in produce prices and product diversification based on comparative advantage etc.

Likewise, some impacts of Sindhuli Road can be observed in the economic activities such as flourishing of commercial agriculture farming like vegetable/fruit cultivation, agro-based processing, micro enterprises, saving and credit, dairy farming and so on. Besides this, better access has enabled the government authorities and non-government organizations (NGOs) to deliver services timely in the rural areas of the road corridors. Many informal and unorganized small market centres have also emerged in several places along the road corridor. Economic activities and movement of people at Khurkot of Bhimeshwar VDC of Sindhuli have increased with the operation of bus service between Dhulikhel and Khurkot quite recently. Table 3 presents some of the key market centres and important places along Sindhuli Road.

Table 3: Key market centres and key crops along Sindhuli Road

Road Section	Name of Section	Key Market Centres	Key crops	Key Agricultural Pocket Areas	Weekly Market
I	Bardibas-Sindhuli Bazaar	Bardibas, Bhiman	Cereal, Pulse, Oilseeds, Tomato	Bhiman, Ranibas	Bhiman, Sindhulimadhi, Bardibas
II	Sindhuli	Sindhuli	Junar,	Khaniyakhark	Not identified

	Bazaar -Khurkot	Bazar	Orange, Lemon, Maize, Buckwheat, Potato, Vegetables	a, Khurkot	
III	Khurkot -Nepalthok	Ratamata	Junar, Orange, Lemon, Maize, Rice, Buckwheat, Potato, Vegetables	Majhuwa, Jhangajholi Ratamata	Jhangajholi Ratamata (Saturday)
IV	Nepalthok -Dhulikhel	Dhulikhel, Bhakunde	Rice, Wheat, Maize, Coffee, Citrus, Potato	Nepalthok, Bhakundebesi, Mangaltar	Not identified

(4) Rationale of the Proposed Project

Despite the priority given to agriculture sector by the government of Nepal in the past, expected result could not be garnered so as to raise the living standard of rural masses especially *Dalit*, *Janjati*, women, and marginalized communities depended on it. Farmers and local communities in remote and interior parts of mid-hills of Nepal lack access to improved agricultural technologies and support services to enhance their cash income and reduce food insecurity. Marginal communities such as *Dalits* and disadvantaged *Janjatis* in these interior mid-hill regions are poor, vulnerable and lack access to improved technologies in food crops, horticulture, livestock, and natural resource management.

The share of high value crops in total cultivated area is still small and therefore the desired process of agricultural diversification has remained hardly noticeable. The rural areas suffer from slow growth, rising poverty, food insecurity, and subsistence-level agriculture. Trade often occurs in local markets that are subject to gluts and price crashes. Storage and transport facilities are poorly developed and quality and value enhancement through grading and processing is rare. In the absence of adequate marketing channels and opportunities, the incentive and financial capacity to invest in improved farm management is limited. This sector faces in this era of globalization are market orientation, trade promotion, and increased investment in the agricultural sector in order to secure broad-based growth in rural incomes.

An expansion of high value crops could provide a much higher income and

provide greater incentives to producers. Return to labour for high value crops is said to be between two and seven times higher than for cereals. The wide range of ecological zones, Nepal has strong potential in the production of a variety of commodities like Table 3 shows in the Sindhuli Road Corridor context.

The proposed project focuses on the expansion of such high value crops production in the targeted area with an appropriate but sustainable farming practice. In pursuing expansion of high value crop production, following issues can be highlighted: how farmer can accept such crop production; how extension worker can support farmer; what mechanism is best fitted to farmers to gain their know-how of high value crop production; what supporting arrangement is required; more importantly to what extent such crop are economically attractive; etc. In order to address these issues, development intervention is necessary. High value crops in nature especially require a market and need to have a certain value chain. To gain popularity in the market, controlling and management of both quantity and quality of the produce need to be addressed at the first step since it would be difficult to gain market popularity without them.

Thus, the proposed project envisages lying importance more on strengthening production and extension system. In this contest, JICA funded project "Agricultural Training and Extension Improvement Project (ATEIP)" demonstrate good mechanism of both needs matching and extension practice. While proposed project period, such modality developed by ATEIP can be applied to the targeted area with re-orientation towards a commercialization of high value crops in the targeted area. Similarly, past achievement of the JICA funded projects such as Horticulture Development Project (HDP) will also need to be assessed in the present context. While carrying out such assessment, technical needs of both farmers and extension for specific high value crops which fit into the targeted districts also need to be identified.

One of the major achievements of ATEIP was to facilitate group formation while the said project tries to institutionalize better extension system. Such farmers group can be developed and functioned as an important organ for the farmer. Such group will be further nursed as a institution for the farmers to prepare for the commercialization of the produce. Such farmer groups will also be expected to be developed so that farmer can take some collective actions and cope with market situations. For the extension aspect, it could also provide both JT/JTA and farmers with a field to demonstrate farming practices. To make such system more strengthened and sustainable, technical backstopping capacity of DADO, in terms of demonstrating farming practices and techniques to the service recipients, needs to be developed and timely monitored.

The outline of proposed project is described in section 6 below.



6. Outline of the Project

(1) Overall Goal

Livelihood improvement of the rural people in Sindhuli Road Corridor Area through enhanced high value commercial production.

(2) Project Purpose

Preparation of comprehensive plan/activities/programs through identification of potential commercial high value crops and appropriate intervention area and technical backstopping for increased production and marketing by mobilizing community based organizations.

(3) Area to be covered by the Project

Kavre, Sindhuli, Dolakha, Ramechhap Districts

(4) Outputs

1. Potential horticultural crops and livestock and necessary techniques and future activities needed to enhance production and marketing in respective area are identified through a joint survey with DADOs and DLSOs.
2. Practical skills and techniques of horticultural/livestock farmers and agricultural extension workers under DADOs are improved in selected technical areas.
3. Farmer's groups/cooperatives are strengthened and linkage with service providers are established and strengthened.
4. Technical backstopping by DADOs and MOAC/ DOA is improved.

(5) Activities

- 1-1: Prepare inventory of major high value horticultural crops/livestock in all targeted districts in participatory manner.
- 1-2: Conduct detailed survey to identify potential and technical constraints to expand production based on farmers' needs and link with the market.
- 1-3: Identify locally available necessary production skills, techniques and activities to promote high value crop production/ livestock rearing and marketing
- 1-4: Identify strategic location for collection and market centers.
- 1-5: Assess extension facility and capacity of DADOs
- 1-6: Prepare comprehensive plan and identify the necessary activities for expansion of the high value crops and livestock and identify the areas for skill development of the extension workers in targeted districts.



- 2-1: Identify pilot villages, pilot products and model farm/farmers based on the Activities 1 (for horticultural crops).
- 2-2: Based on the areas identified, conduct practical training/demonstration activities to model farmers with extension workers including JT/JTA stationed in service centers based on the skill development plan for extension workers under DOA.
- 2-3: Monitor above activities and conduct additional training to extension workers under DOA.
- 2-4: Develop practical manual for horticultural production technologies.

- 3-1: Assess farmers groups (for both crops and livestock) and their function/activities in the targeted districts.
- 3-2: Promote farmer's participation and facilitate farmer's group formation that centers model farm/farmers focusing on horticultural crops.
- 3-3: Facilitate and associate farmer's group to become a platform among the interested farmers to get technical know-how on crop production technologies and marketing
- 3-4: Establish and/or strengthen the linkage of farmers groups/cooperatives with the service providers and enhance capacities in this aspect.

- 4-1: Conduct OJT training to DADOs extension officer based on assessment done by Activities 1..
- 4-2: DADOs/ DLSOs conduct training to farmer groups on group management/mobilization.
- 4-3: DADO/DLSOs conduct training to farmer groups on marketing issues
- 4-4: Monitor DADO's extension activities and feedback to skill development plan and OJT.

(6) Input from the Recipient Government

- (a) Office space for experts in Kathmandu and targeted districts.
- (b) Counterparts and their cost (salary, allowances)
- (c) Necessary counterpart government budget for the project operation.

(7) Input from the Japanese Government

- (a) Experts (Long-term: Crop production, extension, organization strengthening, Short-term: marketing)
- (b) In country training.
- (c) Training in third country/Japan.

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- (d) Necessary equipment to examine potentials of enhancing crop productions and others.
- (e) Provision of budget for program and its implementation

7. Implementation Schedule

August 2010 to July 2013 (three years)

8. Description of Implementing Agency

Department of Agriculture will be the implementation agency for the project. MOAC as executing agency will facilitate coordination between DOA and DLSO during implementation. DLSO will be involved during assessment/surveys in identifying the potential commodities, exploring marketing needs/infrastructure and in facilitating/strengthening of farmer's groups/cooperatives.

9. Related Information

- (1) Prospects of further plans and actions/ Expected funding resources for the Project:
(If implementing agency plans to take some (future) actions in connection with this proposed project, please describe the concrete plans/action and enter the funding sources for the plans and actions.)
- (2) Projects by other donor agencies, if any:
- (a) World Bank: Project for Agriculture Commercialization and Trade (PACT) (waiting for government endorsement, targeted district overlap presently at Kavre)
 - Component 1: Agriculture and rural business component.
 - Component 2: Support for sanitary and phytosanitary facilities and food quality management.
 - Component 3: Project management and monitoring and evaluation
 - (b) World Bank: Poverty Alleviation Fund II (on-going, expected till September 2012, project area is whole country)
 - Improve living conditions, livelihoods and empowerment among the rural poor.
 - enhance the capacity of local bodies, particularly VDC, to provide better services for poor and socially excluded groups.
 - (c) ADB: Commercial Agriculture Development Project (on-going)
 - Agriculture value chain development in eastern region.
 - Support to semi-commercial agricultural stakeholders.
 - Promotion of social inclusiveness amongst agricultural stakeholders.
 - (d) IFAD: High Value Agriculture Project in Hill and Mountain Area (Planned, project



area in mid-western development region)

- Development of pro-poor value chains.
- Introduction of higher output/value crops, improved market linkages, and better access to micro-finance services.
- Extension of sustainable agricultural practices.

(3) Other relevant Projects (Activities in the sector by the recipient government and NGOs), if any:

(a) OVOP (One Village One Product) programme, Government of Nepal.

(4) Other relevant information (Available data, information, documents, maps, etc. related to the Project)

JICA is currently conducting program formulation survey in the field of proposed project. Preliminary result of the survey is presented in section 14 below.

10. Global Issues (Gender, Poverty, Climate change, etc.)

Poverty and food security.

11. Environmental and Social Considerations

See attached screening format.

12. Beneficiaries

Model farmers, farmer group and member farmer, DADO officers and extension workers in the targeted districts.

13. Security Conditions

Good. So far no seriously concerning security incidents happened.

14. Preliminary Finding by JICA's Survey (Feb to June 2009) in Targeted and Mahottari Districts

(1) Land structure and ownership pattern

- Most of the households in survey districts (almost 97 percent) have land but the average land holding size is less than 0.64 ha per HH. Compared to other four districts, Mahottari has higher proportion of landless HHs.
- 25.5 percent of HHs reported to have rented in land indicating rises in the status of informal tenants. Most of lands are rented-in for cereal crops followed by vegetables and potato. Highest percent of HHs renting in land was seen in Mahottari (38 percent) followed by Dolakha (28.8 percent).



- Of the total land cultivated by sample HHs, about 16 percent is fully irrigated and nearly 33 percent is partially irrigated. People's access to irrigation is comparatively low considering the country's average situation too. Among the districts, people's access to irrigation in Ramechhap seemed substantially lower (nearly 82 percent) whereas the status of Mahottari was somewhat better (93 percent irrigated). But most of the land in Mahottari is partially irrigated (92 percent).
- Incidence of leaving land fallow for one season or more is alarming (nearly 15 percent of the HHs reported to have left about 9 percent their total land fallow), partly caused by shortage of farm labor and partly by the lack of irrigation (overall reporting by more than two third of respondents) and high cost of cultivation. The highest proportion of HHs reported to have left the land fallow was found in Kavre (21.4 percent) and Sindhuli had the lowest (5.7 percent).

(2) Farming practices

- Farming is the main occupation of about 60 percent sampled HHs whereas 53.1 percent HHs in both Ramechhap and Sindhuli reported farming as their main occupation. Proportion of Dalits attracted towards agriculture/farming is increasing.
- In general, farming is mostly subsistence- carrying out agriculture primarily for self consumption purpose (84.5 percent). Very less proportion of HHs were involved in agriculture targeting markets (around 11 percent) which reveals a low level of commercialization. But it is on rise, particularly in districts like Kavre and Doiakha due to improved transport facilities and better markets. In Terai district (Mahottari), higher percent of HHs grew cereals for both self consumption and sales compared to the other districts where majority of them grew cereals for self consumption
- Evidences are available with regard to gradual shift of agriculture towards commercialization in all the districts, albeit the pace of commercialization is rather slow with somewhat higher side in Kavre and Mahottari followed by Dolakha and Sindhuli. The status of Ramechhap is weakest among all the districts.
- Almost 80 percent HHs grow vegetables but proportion of those HHs growing vegetables entirely for market/sale is substantially low (2.3 percent), and this applies to most of the commodities including milk and live animals. Kavre district was found relatively in comfortable position with regard to producing agricultural commodities for sale. Proportion of HHs growing fruits for self

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consumption and sales was highest in Sindhuli (21.9 percent) followed by Dolakha and Ramechhap (both about 16 percent).

- About 67 percent of HHs grew potato; nearly 40 percent for self consumption; and about 25 percent for self consumption as well as sale; Kavre and Dolakha have higher percentage of HHs involved in commercial farming of potato (44.8 percent and 40.4 percent respectively) compared to other districts
- Percent of HHs growing industrial crops was very low across all the districts with a small percent in Kavre (about 3 percent) doing it almost entirely for self consumption.
- About 62 percent of HHs engaged in milk production; 36.1 percent for entirely self consumption and 25.2 for self consumption and sales; highest percent of HHs engaged in sales and commercialization of milk was highest in Kavre (62.5 percent) followed by Mahottari (38.5 percent).
- About 70 percent HHs were engaged in goat production – highest in Ramechhap and Dolakha (85.4 percent and 82.3 percent respectively) followed by Kavre (about 80 percent); Percent of HHs rearing goat was found to be highest among Brahmins/Chhetris (62.3 percent).
- Average farm expenditure per HH was Rs. 22,061 per ha with highest share for labor (39 percent) followed by seeds (24 percent); Average value of farm expenditure was largely distorted by the expenditure reported in Kavre which reported to have incurred the highest average expenditure (Rs. 41,757 per HH) due to heavy use of chemical fertilizer and hired labour.
- Average expenditure on livestock per HH was Rs. 6529 per HH per year with majority share of animal feed (87 percent). HHs' average expenditure on livestock and poultry rearing was highest in Kavre and lowest in Sindhuli district.

(3) Income and expenditure

- All the HHs have more than one sources of cash income. Sale of agricultural produces (crop and livestock) is the main sources of income of majority of HHs in all the districts except that of Ramechhap where income from non-agriculture wages was the main income source of 24.5 percent HHs. When lumped the proportion of households depicting income from the sale of crops and livestock reached to just 13 percent in Ramechhap. On the other, of the different sources of income, a large proportion of HHs in Kavre (nearly 62 percent) reported to have agriculture as the main source of income.
- Overall, the average annual income per HH is Rs. 97,321.00 where the share of agriculture to the total income is about 33.3 percent. In Ramechhap,

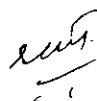


respondents' households stated the contribution of agriculture to total HH income strikingly low. The key contributory factors, according to respondents, were the share of remittance and the contribution from non-agriculture wage. The proportion of HHs depicting sale of crop and livestock as the main source of income was the lowest in Ramechhap district. The quality of the agricultural land in Ramechhap is reported to be of low quality.

- Of the total sampled HHs, 15.5 percent of HHs are working abroad and the average remittance amount per HH per year is Rs. 79,541.00.
- Food expenditures dominate the household expenditures followed by education. On an average a household spent Rs. 65,171.00 per year where the share of food was 43.1 percent and this was followed by education (19 percent). The share of festivals and religious activities was highest in Dolkha (21.8 percent) nearly equal to that of education (22 percent) there.
- Majority (38 percent) of HHs had food sufficiency for 3-6 months; followed by 25.2 percent with food sufficiency for 6-9 months; Percentage of HHs with food sufficiency for less than 3 months was highest for Mahottari (25.0 percent) followed by Dolakha (18.2 percent).

(4) Assets, environment, and public services

- Almost all HHs have houses with average number of house per HH 1.59. Overall, 70.4 percent of the total houses have roof of galvanized sheet followed by Thatched roof (26.8 percent) and concrete (2.9 percent). While majority of the HHs in Ramechhap and Sindhuli have Thatch roof, Dolakha and Kavre have galvanized sheets. Houses made up of concrete are highest in Mahottari.
- 73.2 percent of HHs had Radio; 46.8 percent had mobile phone; and about 35 percent have televisions.
- Proportion of HHs with possession of larger assets such as refrigerator/freezer, motorcycle, car, truck/tractor was very low and possession of agricultural assets is still very negligible.
- Households use different sources for cooking such as electricity, firewood, crop residue, coal, dung cake, kerosene and gas (both LPG and biogas). More than nine tenth of the households use firewood (92.8 percent) as main source of fuel for cooking followed by dung cake (4.1 percent) and gas (3.4 percent). The dung cake is specifically used in Mahottari district (20.8 percent as main source and 38 percent as subsidiary source). Burning of dung for fuel reduces the availability of farm yard manure.



- Majority of the households use pit latrine toilets in all survey districts except in Mahottari where nearly two third of survey households don't have toilets and use open space.
- Majority of HHs reported to have been satisfied on education (average score of 3.01 out of 5) .
- With average score of less than 2.5, the survey revealed majority of households in survey districts not satisfied with services related to waste disposal, veterinary services, agricultural services, income generating opportunities, health care and road condition. Of all the services, the top three lowest scorers were job creation, agriculture service and veterinary services.
- In general, environment is cleaner in the hills than Terai. In aggregate, nearly 54 percentage of sampled HHs reported that the quality of their surrounding environment was satisfactory when 75 percent survey households in Mahottari district reported that their environment is not clean and use of cow dung as fuel, lesser proportion of households having toilets and lesser participation in cleaning villages were cited as some of the key reasons for the poor environment condition in Mahottari.

More than two third of households have taken loan across all survey districts at higher interest rate, varying from 28.8 percent in Ramechhap to 17.1 percent in Kavre.

(5) Credits

- Nearly 71 percent of sampled households have taken loan at average interest rate of 24.1. Of those HHs who have taken loan, average amount of loan per HH is Rs. 63,396 per year and number of loans taken per year is about 2.10 per HH.
- Of the total number of loans taken by the sampled HHs, nearly 56 percent have taken from money lenders. Forty percent households reported to have taken loan from micro-credits and the cooperatives provided loan to 29 percent. This suggests still the domination of informal sources of credits and the people's lesser access to formal sources of credits.
- Of the total HHs taking loan, 41 percent took loan for food followed by daily goods (38 percent). Only about 31 percent HHs reported to have taken loan for agriculture investment. This suggests that the proportion of HHs taking loan for non-productive activities is high, and perhaps one of the key reasons to depend on informal sources.

(6) Conflicts

- Of the total sampled HHs, about 11 percent have provided free food to the combatants followed by physically tortured (7.7 percent), donation/cash support (5.7 percent) and forced labour. Among the survey districts, Sindhuli was highly affected by the conflict where more than half of the households reported that they provided free food and nearly one fourth provided donation and cash support.
- Among all the caste groups, indirect effect of conflict was highest among Brahmins/Chhetris followed by ethnic groups and lowest among Dalits.
- Level of satisfaction on basic needs ranged between partially satisfied to 'unsatisfied'. Major area of dissatisfaction was seen in the 'transportation with highest account in Ramechhap followed by Mahottari.

(7) Key problems and constraints

- The top five social problems encountered by the majority of the HHs in the SR corridor districts are (a) limited access to health services (b) high cost of education (c) shortage of educational opportunities (d) children's low motivation to study and (e) security problem. Of the five problems, three are related to the education.
- Majority of the HHs are not satisfied with the present level of services and they demanded improvements in all the aspects of the service delivery. Limited access to transportation, poor road conditions and lack of business opportunities are the first three economic problems encountered by the majority of the HHs in SR corridor areas in descending order.
- In overall, the five topmost agricultural problems in survey districts encountered by the majority of the HHs in descending order are:
 - Inadequate irrigation facilities (Average ranking score 4.1)
 - Low prices for agricultural produces (average score 3.3)
 - Less availability of production inputs (average score 3.2)
 - Quality of the land poor (average score 3.2)
 - Shortage of labour (average score 2.8)

(8) Status of COs

- COs were found involved in production and marketing of several types of agriculture commodities such as cereals, vegetables, fruits, spices, milk and milk products, live animals (goat and pigs) and others such as NTFPs, bee keeping, tea cultivation etc..

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- Cooperatives and producer groups are mostly involved in marketing, value addition and processing of agriculture produces compared to income generating groups.
- Membership to the COs is not free but the membership fee is nominal. This suggests that the membership fee did not bar any households to take membership of the CO as they like.
- Cooperatives are dominated by men where as producer and income generating groups are mostly managed by women.
- Nearly two third of surveyed COs were formed within the last five years. Of which, nearly one third were formed within the last two year and rest within 3 to 5 years. More than two third of agriculture cooperatives and income generating groups were formed within the last 5 years, whereas majority of producer groups were formed before five years. This revealed peoples' increased interest and demands for themselves to be organized into cooperatives in recent years.
- Almost all COs (94.4 percent) reported that they hold meetings regularly as per the schedule. Proportion of COs holding general assembly and executive committee meeting varied from 97.5 percent among income generating groups to 88.9 percent among producer groups.
- A large majority of members of cooperatives are aware of their roles and responsibilities. Most of the members of COs know their roles and responsibilities. However, some office bearers lacked role clarity.
- Most of the COs (76.7 percent) reported that the decisions are made in participatory way varying from 82.5 percent among income generating groups to 60.9 percent among Agriculture/Multipurpose cooperatives. This suggests that the COs, in general, are generally participatory and are democratic.
- In terms of participation, Janjatis dominated all types of groups with highest proportion in cooperatives (47 percent) followed by IG groups (45.8 percent) and 31 percent among producer groups. Brahmin/Chhetris were followed by Janjati in all the COs/groups. Although the proportion of Dalits' participation in COs was higher than Madheshi, but it was still lower to their size of population.
- Among different types of COs, nearly three fourth (73.9 percent) of Agriculture/Multipurpose cooperative reported to have carried out public audit whereas such proportion was nearly half among producer groups (51.9 percent) and income generating group (30.0 percent). This reveals generally low scoring of COs with regard to transparency, particularly in financial aspect suggesting for the need to enhance their institutional strengthening in good governance aspect.

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- More than nine tenth of COs (91.1 percent) have been carrying out saving and credit activities, which ranged from 87.7 percent among agriculture/multipurpose cooperatives to 96.3 percent among producer groups. One of the key factors which has kept the members united and integrated was the saving and credit function carried out by these COs. This has generally fulfilled the small credit needs of the members but mostly in non-productive activities rather than in productive activities.
- Less than 50 percent COs (44.4 percent) reported to have participated in LAs' programmes and participation of LAs in COs' programmes ranged from 56.5 percent among agriculture/ multipurpose cooperative to 35.0 percent among producer groups
- Nearly one third of COs have been implementing programmes jointly with the support of the external agencies and local bodies such as DDCs and VDCs. Of those COs implementing programme jointly, most of them have received support from their line agencies, e.g. DADO and DLSO in case of producer groups and NGOs in income generating groups.
- Lack of fund (travel allowance) or mobility problems due to lack of vehicles have constrained LAs to participate in COs' programmes.
- Major problems faced by the COs in providing agriculture services are lack of technical skills (capacity) on improved farming and timely availability of production inputs to distribute to the farmers/producers.

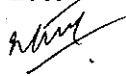
(9) Participation in COs

- About 71 percent of the households have obtained membership in COs, varying from 95.3 percent in Ramechhap to 21.9 percent in Mahottari. Most of the sampled households have obtained membership in at least in two groups/COs. Average CO membership per HH is 2.15.
- The proportion of households obtaining membership is highest among Brahmin/Chhetris (78.9 percent) and lowest among Madhesi (30.7 percent). Overall, average membership per HH was lowest among Madhesi (1.26/HH) than Brahmin/Chhetri. The proportion of Madhesi women's participation in COs was lowest (29.4 percent) whereas that of Dalit women was highest (50.4 percent). This suggests that traditional Pardah system prevailing in Terai has structurally lowered Madhesi women's access to COs.
- The survey found access of Dalit women to COs equitable and fair from the perspective of their proportion to their population size. This confirms recent increased trends to include Dalit women in COs.

Signature

- With regard to holding decision making positions in COs, survey results revealed nearly 62 percent male occupying the decision making positions against 38 percent by female. Although the survey found the proportion of male holding decision making positions consistently high in all the districts across different categories of respondents, the difference was significantly high in Dolakha (71 percent male against 29 percent female occupying decision making positions).
- The survey showed mixed benefits derived by HHs' participation in the COs, although access to the saving and credit dominated the benefits.
- Nearly two-third of the total HHs surveyed reported to have felt no problem due to COs' membership. However, thirty seven percent Dalits reported that they have been contributing voluntary labor due to their membership in COs. Proportion of HHs from other caste group reporting voluntary labor contribution was within the range of 5 percent. This is indicative of disadvantaged position of Dalits within the COs.

Date: July 2009

Signed: 

Job Title:

On behalf of the Government of Nepal

Screening Format (Environmental and Social Considerations)

Question 1 Address of a project site

Territory of Kavrepalanchok, Dolakha, Sindhuli, Ramechhap districts and Kathmandu Metropolitan City.

Question 2 Outline of the project

2-1 Does the project come under following sectors?

Yes No

If yes, please mark corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation

Not yet started an appraisal process

Others:(

Question 6

If a certificate regarding the environment and society other than EIA, is required, please indicate the title of certificate.

Already certified Required a certificate but not yet done

Title of the certificate :(

Not required

Others

Question 7

Are following areas located inside or around the project site?

Yes No Not identified

If yes, please mark the corresponding items.

National parks, protected areas designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage) and areas being considered for national parks or protected areas

Virgin forests, tropical forests

Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)

Habitat of valuable species protected by domestic laws or international treaties

Likely salts cumulus or soil erosion areas on a massive scale

Remarkable desertification trend areas

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- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle, or special socially valuable area

Question 8

Does the project have adverse impacts on the environment and local communities? :

- Yes No Not identified

Reason: []

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- Air pollution
- Water pollution
- Soil pollution
- Waste
- Noise and vibration
- Ground subsidence
- Offensive odors
- Geographical features
- Bottom sediment
- Biota and ecosystem
- Water usage
- Accidents
- Global warming
- Involuntary resettlement
- Local economy such as employment and livelihood etc.
- Land use and utilization of local resources

Outline of related impacts:

[]

gdy
✓

- Social institutions such as social infrastructure and local decision-making institutions
- Existing social infrastructures and services
- The poor, indigenous of ethnic people
- Maldistribution of benefit and damage
- Local conflict of interests
- Gender
- Children's rights
- Cultural heritage
- Infectious diseases such as HIV/AIDS
etc.
- Others ()

22/11/11

Question 10

Information disclosure and meetings with stakeholders

10-1 If the environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

- Yes No

10-2 If no, please describe reasons below.

[]

MINUTES OF MEETINGS
ON
SCOPE OF WORK
FOR
THE STUDY
ON
HIGH VALUE AGRICULTURE EXTENSION AND PROMOTION PROJECT
IN
SINDHULI ROAD CORRIDOR
IN
NEPAL
AGREED UPON BETWEEN
THE MINISTRY OF AGRICULTURE AND COOPERATIVES
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Kathmandu, 4 July 2010



Mr. Satoru Hagiwara
Leader
Detailed Planning Survey Team
Japan International Cooperation Agency



Dr. Purushottam P. Mainali
Joint Secretary
Planning Division
Ministry of Agriculture and Cooperatives

I INTRODUCTION

In response to the official request of the Government of Nepal (hereinafter referred to as “GoN”), the Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched the Detailed Planning Survey Team, headed by Mr. Satoru HAGIWARA (hereinafter referred to as “the Team”) , to Nepal from 20th June to 8th July, 2010 to discuss the Scope of Work (hereinafter referred to as “S/W”) for the Study on High Value Agriculture Extension and Promotion Project in Sindhuli Road Corridor (hereinafter referred to as “the Study”).

During its stay in Nepal, the Team carried out field surveys in the study area, and held a series of discussion with the officials of Ministry of Agriculture and Cooperatives (hereinafter referred to as “MOAC”) and concerned Ministries. The list of those who attended these meetings is shown in the Annex 1.

The following points are the main issues discussed and agreed by MOAC and the Team in relation to the S/W.

II RESULTS OF DISCUSSION

1. Title of the Study

MOAC and the Team agreed that the title of the Study is “The Study on High Value Agriculture Extension and Promotion Project in Sindhuli Road Corridor.

2. Objectives of the Study

MOAC and the Team agreed upon those.

- (1) The overall goal of the study is to contribute livelihood improvement on the rural people in Sindhuli Road Corridor through income generation by enhanced high value commercial agricultural production.
- (2) The objectives of the study are to formulate Master Plan (hereinafter referred to as “M/P”) with target year 2020, which consist of Action Plan (hereinafter referred to as “A/P”) to promote commercial development of potential agricultural products in Sindhuli Road Corridor.

3. Study Area

MOAC and the Team agreed that the Study covers the following 4 (four) Districts.

- (1) Kavrepalanchowk
- (2) Dolakha
- (3) Ramechhap
- (4) Sindhuli

4. Target Products for the Study

MOAC and the Team agreed that the agricultural products considered and dealt with in the Study are horticultural crops and livestock.

5. The Study period and its commencement

MOAC and the Team agreed that the study period is three (3) years. The Team explained that the timing of commencement of the Study will be decided according to the result of discussion between GOJ (Government of Japan) and JICA. MOAC understood it.

6. Pilot Projects

MOAC and the Team agreed that the number of pilot projects will be within ten (10) in total and allocation of pilot projects in respective districts would be decided in the first phase of the Study.

7. Establishment of Steering Committee (StC)

For the smooth and effective implementation of the Study, MOAC and the Team agreed upon the establishment of Steering Committee consisting of the following members;

- (1) Chairperson
Secretary, MOAC
- (2) Member Secretary
Joint Secretary, Planning Division, MOAC
- (3) Members
Joint Secretary, Agriculture and Rural Infrastructure Development Division, NPC
(National Planning Committee)
Joint Secretary, Monitoring and Evaluation Division, MOAC
Joint Secretary, Gender Equity and Environment Division, MOAC



Joint Secretary, Agribusiness Promotion and Statistics Division, MOAC
Joint Secretary, Administrative Division, MOAC
Director General, DOA (Department of Agriculture)
Director General, DOL (Department of Livestock)
Director General, DOC (Department of Cooperatives)
Director General, DFTQC (Department of Food Technology and Quality Control)
Joint Secretary, Planning and Foreign Aid Coordination Division, MOLD (Ministry of Local Development)
Chief Executive Officer, AEC (Agro Enterprise Center), FNCCI (Federation of Nepalese Chambers of Commerce & Industry)
Representative, EOJ (Embassy of Japan)
Representative, JICA Nepal Office
Advisory Study members from JICA HQs
Representative, the Study Team

- * Chairperson can invite other members as needed.
- ** Committees in District level will be organized upon necessity after commencement of the Study.
- *** Member Secretary will coordinate the committee.

8. Counterpart Personnel

MOAC and the Team agreed that MOAC should take responsibility for assigning appropriate number of qualified counterpart personnel to each study member and submit the list prior to commencement of the Study.

9. Necessary Equipment and Facilities for the Study

MOAC agreed to provide the Study Team followings:

- (1) Office space, furniture and office equipment in MOAC Head Office and district offices
- (2) Water utilities and electricity for the Study offices
- (3) Communication facilities including internet and telephone

Other necessary equipment exclusively used for the Study will be prepared by JICA.

10. Report

MOAC and the Team agreed that the Final Reports of the Study shall be made

available to stakeholders and open to the public in order to maximum use of the result of the Study.

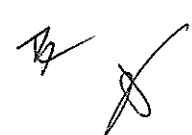
11. Environmental and Social Consideration

MOAC and the Team agreed that environmental and social consideration guidelines of JICA, and relevant regulations and standards of the GON will be adopted for the Study.

12. Draft S/W

The Scope of Work (S/W) is an official document which defines contents of the Study. The draft S/W, attached Annex2, was prepared and confirmed through a series of discussions by MOAC and the Team.

end



List of Persons Consulted

(Nepali Side)

National Planning Commission (NPC)

Mr. Bhaba Krishna Bhattarai, Joint Secretary of Agriculture and Rural Infrastructure Development Division, NPC

Mr. Biju Kumar Shrestha, Program Director, NPC

Ministry of Agriculture and Cooperatives (MOAC)

Mr. Nathu Pd. Chaudhary, Secretary, MOAC

Dr. Purushottam Mainali, Joint Secretary of Planning Division, MOAC

Mr. Fulgen Pradhan, Joint Secretary of Agribusiness Promotion and Statistical Division, MOAC

Mr. Mahendra N. Poudel, Senior Agricultural Economist, Chief of Foreign Aid Coordination Section, MOAC

Ms. Sabnam Shivakoti, Senior Plant Protection Officer, MOAC

Ministry of Local Development (MOLD)

Mr. Dinesh Kumar Thapaliya, Joint Secretary of Planning and Foreign Aid Cooperation Section, MOLD


Mr. Purusottam Nepal, Under Secretary of Planning and Foreign Aid Cooperation Section, MOLD

Mr. Dhan Bahadur Shrestha, Under Secretary of Monitoring and Evaluation Section, MOLD

Federation of Nepalese Chambers of Commerce and Industry (FNCCI)

Mr. Krishna P. Tamrakar, Vice President, FNCCI

Mr. Pradip Maharjan, Chief Executive Officer of Agro Enterprise Center, FNCCI



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(Japanese Side)

Mr. Satoru Hagiwara, Leader of Detailed Planning Survey Team, Japan International Cooperation Agency (JICA)

Mr. Korekatsu Shiga, Commercial Farming Promotion of Detailed Planning Survey Team, JICA

Mr. Toshinobu Miki, Project Planning of Detailed Planning Survey Team, JICA

Mr. Naoki Matsumura, Study Coordinator of Detailed Planning Survey Team, JICA

Mr. Hiroshi Kishimoto, Agricultural Marketing/ Distribution of Detailed Planning Survey Team, JICA

Ms. Fumiko Akazawa, Environmental Social Consideration/ Evaluation and Analysis of Detailed Planning Survey Team, JICA

Mr. Yasuaki Momita, Representative, Nepal Office, JICA

Mr. Narendra Kumar Gurung, Senior Program Officer, Nepal Office, JICA

Dr. Masahiro Kawamura, JICA Expert for Ministry of Agriculture and Cooperatives




**DRAFT
SCOPE OF WORK
FOR
THE STUDY
ON
HIGH VALUE AGRICULTURE EXTENSION AND PROMOTION PROJECT
IN SINDHULI ROAD CORRIDOR
IN NEPAL**

**AGREED UPON
BETWEEN
MINISTRY OF AGRICULTURE AND COOPERATIVES
AND
JAPAN INTERNATIONAL COOPERATION AGENCY**

Kathmandu, DD, MM, 2010

Mr. Noriaki Niwa
Chief Representative
Nepal Office
Japan International Cooperation Agency

Joint Secretary
Ministry of Agriculture and Cooperatives
Government of Nepal



I. INTRODUCTION

In response to the official request of the Government of Nepal (hereinafter referred to as "GoN") in June 2009, the Government of Japan (hereinafter referred to as "GoJ") has decided, in accordance with the relevant laws and regulations in force in Japan, to conduct High Value Agriculture Extension and Promotion Project (hereinafter referred to as "the Study") within the framework of the Agreement on Technical Cooperation between GoJ and GoN signed on 3rd September, 2003 (hereinafter referred to as "the Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the GoJ's programs of Loan Aid, Grant Aid and Technical Cooperation, will jointly undertake the Study with the authorities concerned of the GoN.

The present document sets forth the Scope of Work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The overall goal of the Study is to contribute livelihood improvement of the rural people in Sindhuli Road Corridor through income generation by enhanced high value commercial agricultural production.

The objectives of the Study are:

- (1) Formulate Master Plan (hereinafter referred to as "M/P") with target year 2020, which consists of Action Plan (hereinafter referred to as "A/P") to promote commercial development of potential agricultural products in Sindhuli Road Corridor.
- (2) Transfer relevant skills and technologies to the Nepali counterpart personnel and beneficiaries through pilot activities and on-the-job training in the course of the Study.

III. STUDY AREA

Kavrepalanchowk, Dolakha, Ramechhap and Sindhuli Districts (Four Districts)

IV. SCOPE OF THE STUDY

In order to achieve the objectives above, the Study shall consist of the following items:

1. Phase 1: Basic Survey for M/P Preparation

- 1-1. To overview the Government policy, program and institutional arrangement to promote agricultural commercialization and corridor development in Nepal.

- 1-1-1. Institution and agencies related to agriculture development
- 1-1-2. Government policies, program and strategies
- 1-1-3. Budget and staff arrangement
- 1-2. To study the agriculture distribution, trade and market in Nepal.
 - 1-2-1. Trade of agricultural produce
 - 1-2-2. Direction of trade and trade route
 - 1-2-3. Distribution of produce and intermediaries
 - 1-2-4. Mode of marketing and intermediaries
 - 1-2-5. Market facility
 - 1-2-6. Market and market/consumers' preference
- 1-3. To study the socio economic conditions of Sindhuli Road Corridor.
 - 1-3-1. Background of Sindhuli Road Corridor
 - 1-3-2. Banepa-Bardibas Road ("Sindhuli Road") and infrastructure
 - 1-3-3. Caste/Ethnic groups, gender, disadvantaged group and conflict affected people
 - 1-3-4. Industrial structure
 - 1-3-5. Labor force, employment opportunities and rural migration
- 1-4. To overview agriculture in Sindhuli Road Corridor.
 - 1-4-1. Climate and water
 - 1-4-2. Land and asset holdings
 - 1-4-3. Land use
 - 1-4-4. Agricultural production and market
 - 1-4-5. Agriculture extension
 - 1-4-6. Groups and cooperatives involved in agriculture
 - 1-4-7. Farm management
- 1-5. To examine the potential of commercial agriculture in Sindhuli Road Corridor
 - 1-5-1. Production of high value agricultural products
 - 1-5-2. Market, marketing and sales of high value agricultural products
 - 1-5-3. Technical support and availability
 - 1-5-4. Private sector involvement
- 1-6. To identify infrastructure and facilities for commercial agriculture promotion needs.
 - 1-6-1. Hard-type infrastructure
 - Road and road network, collection center/point, storage, processing and quality control facilities, etc.
 - 1-6-2. Soft-type facilities
 - Mode of market information sharing, extension modalities, farmers' organization/association and their

practices, etc.

- 1-7. To clarify advantage of high value agricultural production in Sindhuli Road Corridor.
 - 1-7-1. Rationale of commercial farming in the overall farming
 - 1-7-2. Production volume, cost, sales and income
 - 1-7-3. Market, marketing and pricing
 - 1-7-4. Consumers and traders' preference
 - 1-7-5. Private sector involvement
 - 1-7-6. Identification of potential products
- 1-8. To analyze present conditions and consider counter measures to enhance commercial agriculture in Sindhuli Road Corridor.
 - 1-8-1. Production technologies
 - 1-8-2. Post harvest technologies and food safety
 - 1-8-3. Infrastructure
 - 1-8-4. Marketing and market development
 - 1-8-5. Government backstopping service and capacity
 - 1-8-6. Private sector involvement
- 1-9. To zone areas for the development of each potential product.
- 1-10. To draft basic strategy / policy for formulation of M/P.
- 1-11. To conduct workshop among stakeholders for sharing the draft stipulated above 1-10 and for their understanding.

2. Phase 2: Pilot Activities for A/P

- 2-1. To consider approach and design of pilot activities based on the basic strategy / policy.
- 2-2. To Implement pilot activities.
 - 2-2-1. Strengthening farmers group/cooperatives
 - 2-2-2. Production/Post harvest technologies development
 - 2-2-3. Market/Marketing development
 - 2-2-4. Small scale infrastructure development
- 2-3. To verify pilot activities and feedback to M/P.

3. Phase 3: Formulation of M/P

- 3-1. To review the result of pilot activities.
- 3-2. To revise the basic strategy/policy.
- 3-3. To formulate M/P with target year 2020 for promotion of High Value Agriculture in Sindhuli Road Corridor.
- 3-4. To formulate A/P for priority projects.
- 3-5. To formulate policy design matrix including priority action, expected outcome, and monitoring identified in M/P.

V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule in ANNEX.

VI. REPORTS

JICA shall prepare and submit the following reports in English to GoN.

- (1) Inception Report: Forty (40) copies at the commencement of the Study
- (2) Progress Report 1: Forty (40) copies at the end of Phase 1
- (3) Progress Report 2: Forty (40) copies at the beginning of Phase 2
- (4) Interim Report: Forty (40) copies at the middle of the Study
- (5) Draft Final Report: Forty (40) copies at the end of the field work; GoN will provide JICA with its comments on the Draft Final Report within one (1) month of the receipt of the Draft Final Report.
- (6) Final Report: Fifty (50) copies within two (2) months of the receipt of GoN's comments on the Draft Final Report

VII. UNDERTAKING OF THE GON

1. To facilitate smooth conduct of the Study, GoN shall take necessary measures:
2. GoN shall bear claims, if any arise, against the members of the Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Study Team.
3. GoN shall be responsible for the security and safety of the Study Team and relevant information.
4. The Ministry of Agriculture and Cooperatives, at its own expense, where necessary, provide the Study Team with the following, in cooperation with other organizations concerned:
 - (1) Information as well as assistance in obtaining medical service;
 - (2) Available data (including maps and photographs) and information related to the Study;
 - (3) Counterpart personnel;
 - (4) Travel and daily allowances for counterpart personnel;
 - (5) Suitable office space with furniture and communication facilities;
 - (6) Necessary counterpart government budget for the Study operation (Pilot Project Phase); and
 - (7) Credentials or identification cards.

VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, the Study Team to Nepal
2. To pursue technology and skills transfer to Nepali counterpart personnel as well as the communities in the course of the Study.

IX. CONSULTATION

The Ministry of Agriculture and Cooperatives and JICA shall consult mutually in respect of any matter that may arise from or in connection with the Study.

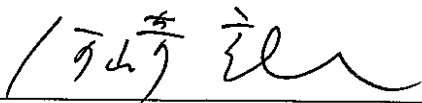
ANNEX: Tentative Study Schedule



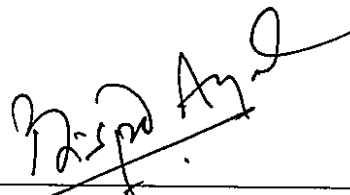
**SCOPE OF WORK
FOR
HIGH VALUE AGRICULTURE EXTENTION AND PROMOTION PROJECT
IN SINDHULI ROAD CORRIDOR
IN NEPAL**

**AGREED UPON
BETWEEN
MINISTRY OF AGRICULTURE AND COOPERATIVES
AND
JAPAN INTERNATINAL COOPERATION AGENCY**

Kathmandu, 14 February, 2011



Mr. Mitsuyoshi Kawasaki
Chief Representative
JICA Nepal Office
Japan International Cooperation Agency



Mr. Bishunu Prasad Aryal
Joint Secretary
Planning Division,
Ministry of Agriculture and Cooperatives
Government of Nepal

I. INTRODUCTION

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- (2) To transfer relevant skills and technologies to the Nepali counterpart personnel and beneficiaries through pilot activities and on-the-job training in the course of the Study.

III. STUDY AREA

Kavrepalanchowk, Dolakha, Ramechhap and Sindhuli Districts (Four Districts)

IV. SCOPE OF THE STUDY

In order to achieve the objectives above, the Study shall consist of the following items:



1. Phase 1: Basic Survey for M/P Preparation and Designing Basic Development Strategy

- 1-1. To overview the Government policies, programs and institutional arrangements to promote high value agriculture and corridor development in Nepal.
 - 1-1-1. Identification of institution and agencies related to agriculture development
 - 1-1-2. Highlight of government policies, strategies and program
 - 1-1-3. Review of budget and staff arrangement
- 1-2. To study the agriculture distribution, trade and market in Nepal.
 - 1-2-1. Overview of trade of agricultural products
 - 1-2-2. Condition of direction of trade and trade route
 - 1-2-3. Review of distribution of products and intermediaries
 - 1-2-4. Examination of mode of marketing and intermediaries
 - 1-2-5. Assessment of market facility
 - 1-2-6. Analysis of market and market/consumers' preference
- 1-3. To study the socio economic conditions of Sindhuli Road Corridor.
 - 1-3-1. Explanatory background of Sindhuli Road Corridor
 - 1-3-2. Feature of B. P. Koirala ("Sindhuli Road") and road network in road corridor
 - 1-3-3. Characteristics of caste/ethnic groups, disadvantaged group and conflict affected people
 - 1-3-4. Outline of industrial structure
 - 1-3-5. Highlight of labor force and employment opportunities
- 1-4. To overview agriculture in Sindhuli Road Corridor.
 - 1-4-1. Condition of climate, water resources and water use in agriculture
 - 1-4-2. Situation of land and asset holdings
 - 1-4-3. Examination of land use
 - 1-4-4. Analysis of agricultural production and market
 - 1-4-5. Review of agriculture extension
 - 1-4-6. Assessment of groups and cooperatives involved in agriculture
 - 1-4-7. Analysis of farm management
- 1-5. To analyze the situation of high value agriculture in Sindhuli Road Corridor and examine potential of such agriculture
 - 1-5-1. Condition of production of high value agricultural products
 - 1-5-2. Review of market, marketing and sales of high value agricultural products
 - 1-5-3. Condition and availability of technical support and availability
 - 1-5-4. Examination of private sector involvement

- 1-6. To clarify advantages of high value agriculture in Sindhuli Road Corridor (target area) and zone the target area according to the prospective development of each potential product with consideration of;
 - 1-6-1. Rationale of high value agriculture in overall farming situation
 - 1-6-2. Production volume, cost, sales and income
 - 1-6-3. Infrastructure
 - 1-6-4. Market, marketing and pricing
 - 1-6-5. Consumers and traders' preference
 - 1-6-6. Private sector involvement
 - 1-6-7. Identification of potential products
- 1-7. To draft a basic development strategy to enhance high value agriculture in Sindhuli Road Corridor toward the formulation of M/P.
- 1-8. To consider countermeasures to mitigate social and environmental impact based on the idea of strategic environmental assessment.
- 1-9. To conduct workshops among stakeholders for sharing the result from above mentioned 1.1-1.8 activities for their understanding.

2. Phase 2: Pilot Activities for M/P

- 2-1. To consider approach and design of pilot activities which verify the prospective development scenario and necessary action plan for each zone based on the basic development strategy. To prepare and implement the environmental and social management plan and mitigation measures, if the pilot plan is categorized "A" or "B" as per JICA guidelines for environmental and social considerations (April, 2004).
- 2-2. To Implement pilot activities based on 2-1 (not more than 10 (ten) sites). Following aspects are assumed to be incorporated in designing pilot activities.
 - 2-2-1. Strengthening of farmers group/cooperatives
 - 2-2-2. Promotion of production/Post harvest technologies development
 - 2-2-3. Promotion of Market/Marketing development
 - 2-2-4. Promotion of Small scale infrastructure development

3. Phase 3: Formulation of M/P

- 3-1. To review the result of pilot activities for M/P formulation.
- 3-2. To revise the basic development strategy.
- 3-3. To formulate M/P with target year 2020 for promotion of high value agriculture in Sindhuli Road Corridor including;
 - 3-3-1. Basic development strategy
 - 3-3-2. Policy design matrix including project long list with their priority
 - 3-3-3. A/P for priority projects in the project long list

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V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule in ANNEX.

VI. REPORTS

JICA shall prepare and submit the following reports in English to GoN.

- (1) Inception Report: Fifty (50) copies at the commencement of the Study
- (2) Progress Report 1: Forty (40) copies at the end of Phase 1
- (3) Progress Report 2: Forty (40) copies at the beginning of Phase 2
- (4) Interim Report: Forty (40) copies at the middle of the Study
- (5) Draft Final Report: Fifty (50) copies at the end of the field work; GoN will provide JICA with its comments on the Draft Final Report within one (1) month of the receipt of the Draft Final Report.
- (6) Final Report: Fifty (50) copies within two (2) months of the receipt of GoN's comments on the Draft Final Report

VII. UNDERTAKING OF THE GON

1. To facilitate smooth conduct of the Study, GoN shall take necessary measures:
2. GoN shall bear claims, if any arise, against the members of the Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Study Team.
3. GoN shall be responsible for the security and safety of the Study Team and relevant information.
4. The Ministry of Agriculture and Cooperatives, at its own expense, where necessary, provide the Study Team with the following, in cooperation with other organizations concerned:
 - (1) Information as well as assistance in obtaining medical service;
 - (2) Available data (including maps and photographs) and information related to the Study;
 - (3) Counterpart personnel;
 - (4) Travel and daily allowances for counter personnel;
 - (5) Suitable office space with furniture and communication facilities;
 - (6) Necessary counterpart government budget for the Study operation; and
 - (7) Credentials or identification cards.



VIII. UNDERTAKING OF JICA

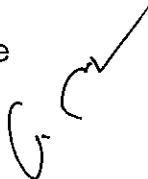
For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, the Study Team to Nepal
2. To pursue technology and skills transfer to Nepali counterpart personnel as well as the communities in the course of the Study.
3. To make sure technology transfer to the counterparts.

IX. CONSULTATION

The Ministry of Agriculture and Cooperatives and JICA shall consult mutually in respect of any matter that may arise from or in connection with the Study.

ANNEX: Tentative Study Schedule



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ANNEX: Tentative Study Schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Phase	Phase 1												Phase 2												Phase 3												
Work in Nepal	█		█		█		█		█		█		█		█		█		█		█		█		█		█		█		█		█		█		
Work in Japan	█					█						█																									
Report	△ IC/R										△ P/R-1												△ IT/R													△ D/F	△ F/R

Note: IC/R = Inception Report; P/R = Progress Report; IT/R = Interim Report; DF/R = Draft Final Report; F/R = Final Report

4. 面談者リスト

主要面談者リスト

<ネパール側>

Kathmandu

National Planning Commission

Mr. Bhaba Krishna Bhattarai	Joint Secretary, Agriculture and Rural Infrastructure Development Division
Mr. Biju Kumar Shrestha	Program Director

Ministry of Agriculture and Cooperatives

Mr. Nathu Pd. Chaudhary	Secretary
Dr. Purushottam Mainali	Joint Secretary, Planning Division
Mr. Fulgen Pradhan	Joint Secretary, Agribusiness Promotion and Statistical Division
Mr. Mahendra N. Poudel	Senior Agricultural Economist, Chief of Foreign Aid Coordination Section
Ms. Shabnam Shivakoti	Senior Plant Protection Officer
河村 真宏 JICA	派遣専門家（商業的農業推進アドバイザー）

Ministry of Local Development

Mr. Dinesh Kumar Thapaliya	Joint Secretary, Planning and Foreign Aid Cooperation Section
Mr. Purusottam Nepal	Under Secretary, Planning and Foreign Aid Cooperation Section
Mr. Dhan Bahadur Shrestha	Under Secretary, Monitoring and Evaluation Section

Federation of Nepalese Chambers of Commerce and Industry

Mr. Krishna P. Tamrakar	Vice President
Mr. Pradip Maharjan	Chief Executive Officer, Agro Enterprise Center

Kalimati Fruits & Vegetables Market Development Board

Mr. Tulasi Gautam	Executive Director
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The World Bank

Dr. Shyam S. Ranjitkar	Senior Irrigation Engineer
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Asian Development Bank

Mr. Govinda P. Gewali	Senior Project Implementation Officer
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Kavrepalanchok District

Mr. Ishawari P. Parday	Senior Agriculture Officer, DADO
Mr. Keshave Acchaml	Senior Agriculture Officer, DADO
Mr. Mani Solekota	Animal Health Technician, DLSO
Mr. Ratna Aclhikori	Animal Health Technician, DLSO
Mr. Krishra Khand	Chairman, Kavre Milking Cooperatives

Dholkha District

Mr. Tanka Bahadur Karki	Senior Agriculture Officer, DADO
Mr. Shree Lod Baral	Horticulture Development Officer, DADO
Mr. Shankour P. Choy	Junior Technician, DADO
Dr. Jagat Bdr Sinkhade	Livestock Development Officer, DLSO
Mr. Gyanendra Kayassika	Hub Officer, FAO-TA to LFLP, DLSO
Mr. Gopi Knshre Sedhai	Junior Technician, DLSO
Mr. Shankar Bahadur Thapa	Local Development Officer, DDC
Mr. Deepak Dhakal	Planning, Monitoring and Administrative Officer, DDC
Mr. Jagadish Aryad	Internal Audit Officer, DDC
Mr. Iswar Sharma	President, Nepal Hatchery Industries Association

Ramechhap District

Mr. Harihar Adhikari	Senior Agriculture Officer, DADO
Mr. Chhdai Lol Ghimire	Plant Protection Officer, DADO
Mr. Rishi Ras Subedi	Junior Technician, DADO
Dr. Narayan Bdr Shrestha	Livestock Development Officer, DLSO
Mr. Poabhu Chauehary	Veterinary Officer, DLSO
Mr. Umesh Pradham	Veterinary Officer, DLSO
Mr. Dilip Kumar Chapagain	Local Development Officer, DDC
Mr. Nirmal Darshan Aeharya	District Technical Officer, DDC
Mr. Padam Bahadrer Lam	Chairman, Junar Agriculture Cooperative Ltd.
Mr. Jaya Bahadur Khatris	Vice Chairman, Junar Agriculture Cooperative Ltd.
Mr. Mohan Kumar Shrestha	Secretary, Junar Agriculture Cooperative Ltd.

Sindhuli District

Mr. Ram Sah	Plant Protection Officer, DADO
Mr. Gopal Aeo	Agriculture Officer, DADO
Mr. Nathuni Yadav	Junior Technician, DADO
Mr. Rajendra Sah	Veterinary Officer, DLSO
Mr. Tej Thapa	Junior Technician, DLSO
Mr. Prakash Bakwa	Junior Technician, DLSO

Mr. Ganesh Gyanwak

Mr. Sagar Dhakal

Mr. Dipak P. Koirara

Mr. Badri Thanpa

Local Development Officer, DDC

Programming Officer, DDC

Chairman, Junar Central Cooperative Union Ltd.

Secretary, Junar Central Cooperative Union Ltd.

<日本側>

JICA ネパール事務所

丹羽 憲昭

武 徹

縦田 泰明

Mr. Narendra Kumar Gurung

所長

次長

所員

Senior Program Officer

在ネパール日本国大使館

谷本 憲一

二等書記官

5. 収集資料リスト

収集資料リスト

番号	名称	形態 図書・ビデオ 地図・写真等	オリジナル ・コピー	発行機関	発行年
K1	STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2008/2009	図書	コピー	Ministry of Agriculture and Cooperatives/Agri-Business Promotion and Statistics Division	2009
K2	STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2007/2008	図書	コピー	同	2008
K3	STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2006/2007	図書	コピー	同	2007
K4	STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2005/2006	図書	コピー	同	2006
K5	STATISTICAL INFORMATION ON NEPALESE AGRICULTURE 2004/2005	図書	コピー	同	2005
K6	AGRICULTURAL MARKETING INFORMATION BULLETIN/SPECIAL ISSUE-2008	図書	オリジナル	Ministry of Agriculture and Cooperatives/Agri-Business Promotion and Marketing Development Directorate	2008
K7	DLSO Doalkha 2nd Q Progress 2066-67.ppt	電子ファイル	コピー	DLSO Doalkha	2010
K8	Dolakha Presentation 2nd Qtr 2067.2.5-6.ppt	電子ファイル	コピー	DADO Doalkha	2010
K9	Introduction DLSO Rch .ppt	電子ファイル	コピー	DLSO Ramechap	2010
K10	kalimati.eng-3.16.ppt	電子ファイル	コピー	Karimati Market	2010
A1	Initial Environmental Examination Guideline for the Agriculture Sector	冊子	オリジナル	Ministry of Agriculture and Cooperatives	2008
A2	Nepal Gazette, Publish from the GoN, Part 57, Kathmandu Bhadra 03, 2064, Number 19	コピー	コピー	Ministry of Agriculture and Cooperatives	2007

6. 面談記録

面談記録

訪問先	Agro Enterprise Center/AEC	No.
日 時	6 月 21 日	
面談者	Mr. Pradip Maharjan/Chief Executive Officer	
調査団員	岸本	
同席者	河村専門家	
記録者	岸本	
<p>内容</p> <ul style="list-style-type: none"> ・ AEC はネパール商工会議所の 1 部門として主に農業商業化の推進を行っている。 ・ 現在は主に稲作、園芸作物、畜産物に力点を置いている。 ・ 換金作物であるショウガはインドでの需要が多く、AEC は生産者とインド人バイヤーとの間にたって周旋を行っている。 ・ 今後の活動のひとつとして、野菜類のハウス栽培、ハイドロ・アグリカルチャー（水耕栽培）を生産者に普及することを計画している。 ・ 現在は ADB 及びオランダの援助機関と協調して活動を行っている。 <p style="text-align: right;">以 上</p>		

訪問先	ラメチャップ郡 Junar Agriculture Cooperative Ltd.	No.
日 時	6 月 24 日	
面談者	Mr. Padam Lam/Chairman ほか 7 名	
調査団員	岸本、三木	
同席者	河村専門家	
記録者	岸本	
<p>内容</p> <ul style="list-style-type: none"> ・ この組合は 4 年前に設立、MoAC の登録を受け、現在の組合員数は 136 人である ・ 主な活動 <ul style="list-style-type: none"> - 相互助け合い生産作業 - 品質管理とマーケティング - ジュナール飲料の製造 ・ 行政からの援助は全くなく、すべての費用は組合で賄っている。 ・ 必要とするサービス <ul style="list-style-type: none"> - トレーニング・プログラム - フィナンシャル・サポート - 品質管理とマーケティングの講習・研修 - 集荷所の新設 - 冷蔵保管庫の新設 ・ 今後の課題はジュナール飲料をカトマンズ等の大都市圏に広め販売すること <p style="text-align: right;">以 上</p>		

訪問先	World Bank	No.
日 時	2010年6月29日 10:15～11:20	
面談者	Mr. Shyam S. Ranjitkar, Sr. Irrigation Engineer	
調査団員	岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者		
記録者	赤澤	
内容	<p>他ドナーとの意見交換及び情報収集を目的に Project for Agriculture Commercialization and Trade (PACT)を実施中の世銀を往訪。冒頭、三木団員より本プロジェクトの概要説明、先方から PACT の概要と進捗に係る説明があり、続いて質疑応答。</p> <p>PACT は 25 地域を対象に農業の商業化促進に向けたプロジェクトを展開中。該当する 25 地域から申請された 388 件のプロポーザルを審査し、対象案件を採択。対象案件の採択は公正性（fairness）に基づき、評価委員会等で協議・決定している。採択されなかった案件については、異議申立制度（grievance system）が整備されている。PACT は実施段階に入ったばかりだが、現時点では予定どおりに進んでいる。上記案件以外にも、世銀が中部 40 地域を対象に灌漑プロジェクトを実施し、ADB が東部 35 地域を対象に小規模灌漑プロジェクトを実施中。</p> <p>環境社会への影響については、世銀セーフガードポリシーにのっとって環境影響を回避・最小化・緩和することがプロジェクト実施の前提となっている。本プロジェクト計画段階で大きな環境への影響は想定されておらず、また実施段階に入ったばかりなので、環境への深刻な影響があったとの報告もなされていない。しかし、西部の平原地域では灌漑による土壌のヒ素汚染（arsenic contamination）や地すべり（landslide）の可能性が指摘されている。肥料・農薬利用による環境への影響は、おおむね想定された環境影響にとどまる。</p> <p>世銀は、案件規模にかかわらずすべてのプロジェクトで地域住民等とのステークホルダー協議を行い、社会環境マネジメント計画（social environmental management plan: SEMP）を策定することが義務づけられている。SEMP では、プロジェクトによる社会面への影響の緩和策や被影響住民への補償内容が検討・計画されている。この SEMP の策定には社会学的・専門的知見を有する社会学者が参加しており、土地収用に伴う住民移転の補償内容や雇用創出プログラムの計画策定に関与している。</p> <p>プロジェクト実施により、土地所有者等の特定のステークホルダーに利益が集中することは回避することが望ましいが、実際には PACT のような農業プロジェクトで衡平な利益の配分は難しい。しかし、世銀は SEMP に基づき、社会的弱者に対してマイクロ灌漑施設を整備する等の配慮を行っている。</p> <p>ADB 等の他ドナーが同じく農業の商業化に向けたプロジェクトを実施していることによる相乗効果はある。ADB とは定期的に会合をもち、意見・情報交換や関連文書を共有している。一方で、類似案件を実施する場合には、（地域など）他ドナーと重複を避ける必要がある。</p> <p style="text-align: right;">以 上</p>	

訪問先	Asian Development Bank	No.
日時	2010年6月29日 11:30～12:30	
面談者	Mr. Govinda P. Gewali, Senior Project Implementation Officer, Nepal Resident Mission	
調査団員	岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者		
記録者	赤澤	
内容	<p>他ドナーとの意見交換及び情報収集を目的に ADB を往訪。冒頭、三木団員より本プロジェクトの概要を説明、ADB の農業商業化プロジェクトに係る説明、続いて質疑応答。</p> <p>ADB がネパールで実施している農業プロジェクトは、①農業セクター強化、②灌漑施設の強化、③アクセス道路整備による connectivity やクラスター連携の強化、が柱となっている。道路整備では、農村のアクセス道路の整備は DOLIDAR の管轄で舗装まで行わないが、幹線道路の建設は Department of Road の管轄でアスファルト舗装する。</p> <p>ADB はラメチャップ郡でアクセス道路の整備をしているが、2本あるアクセス道路のうち、1本は既に工事が始まっており 2012 年に完成予定。もう 1本のアクセス道路は資金不足のため工事が遅れている。なお、ADB は上記アクセス道路に加えて、幹線道路の建設も 1件進めている（ラメチャップ道路の終着地点であるクルコットにはスンコシ川が流れており、ラメチャップ道路とシンズリ道路が繋がっていない。ADB の資金でスンコシ川に橋を架ける計画があるか聞いたところ、そのような計画はないとの発言があった）。</p> <p>アクセス道路の整備では、ADB の環境社会影響評価ガイドラインにのっとり、土地収用の被影響住民に対する雇用計画と環境影響を検討しなければならない。例えば、森林の中に道路を建設するために木の伐採が不可避であれば、同じ本数の木を植えて伐採による影響をオフセットすることが義務づけられている。プロジェクトに係るモニタリングの頻度は（移転住民の生活状況のモニタリングを含む）原則として 6カ月に 1回と定められている。しかし、何か問題が発生した場合、必要に応じてモニタリングの頻度を上げている。</p> <p>現時点では、環境面の影響では特段大きな問題は報告されていない。軽微な影響も含めて想定される環境影響を事前に慎重に検討してきたことと、本プロジェクトは地域住民によって選定されたプロジェクトで構成されており、基本的に地域住民からの賛同と協力が得られていることが大きい。他方、しばしば問題となるのは土地収用である。補償委員会で決定された補償内容に納得できず、対象エリアの住民が 1人でも土地を提供することを拒む場合、ADB は説得を続けなければならず、必然的にプロジェクトの進捗が遅れるという事態が発生する。土地収用の問題は適切な対応が求められることから、事前にインフォーマルな形で対象エリアの対象住民と話し合いを行って同意を得るように努め、その後で正式な交渉と補償手続きに入っている。土地収用の対象となるエリアに居住している違法居住者（squatter）に対しては、ADB ガイドラインにのっとり、他の被影響住民と同様に補償を行っている。道路の建設計画決定後に（決定を聞いて）</p>	

その土地に移動してきて補償を主張する住民がいるが、計画発表後に移住してきた違法居住者は補償の対象とはならないことも定めている。

プロジェクトにおけるコミュニティ・住民参加とジェンダー配慮の重要性が高まっている。ADB のプロジェクトでは、ネパール国内法に基づき裨益者の 33%以上が女性になるようにジェンダー配慮を行っている。ネパールの農村では子どもが農作業をしている姿をよく見かけるが、家族の手伝いをしている程度であれば児童労働に該当しないが、他の農地や工場に送られて就労させられている場合、児童労働に当てはまると認識している。

以上

訪問先	National Planning Commission (NPC)	No.
日時	2010年6月30日 10:30～11:30	
面談者	Agriculture and Rural Infrastructure Development Division	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	樫田所員（JICA ネパール事務所）	
記録者	赤澤	
内容	<p>暫定3カ年計画等の国家開発計画を策定する国家計画委員会（NPC）を訪問。萩原団長より本件プロジェクトの概要説明を行った後、意見交換。主な発言内容は以下のとおり。</p> <p>近年、国内の所得格差が拡大しており、ジニ係数も高くなっている。これは、農業が主要産業であるにもかかわらず農村地域で持続可能な農業開発が進んでいないことに起因する。農業セクターの生産性が低いことと、農業が所得向上と収入機会ではなく生計維持の手段にとどまっていることが問題である。JICAによる農業の商業化に向けた支援は、ネパールの政策目標とも合致している。特に JICA のインフラ整備への支援に感謝している。</p> <p>（本件プロジェクトにインフラ整備が含まれるかとの質問に対して）萩原団長より1年次の情報収集と基礎調査結果に基づき、具体的なプロジェクト実施内容を決定することを説明。また、先方よりプロジェクト実施内容を決定する際には、開発の遅れている地域等のあらゆる要素を考慮したうえで決定し、マスタープランに反映して欲しいとの要望があった。萩原団長より、基礎調査ではすべての要素を調査し、分析・検討することを説明。</p> <p>プロジェクト実施段階に設置する Steering Committee に、NPCからもメンバーとして参加してもらうことを要請し、先方は了承。NPCは省庁間の調整を行う役割を担っているので、省庁間で問題が発生して調整が必要な場合は協力するとの発言があった。</p> <p>三木団員より、次年度あるいは新暫定3カ年計画に農業セクターの中で注力分野があるか聞いたところ、農業セクターでは2つの視点が導入されているとの説明があった。まず、貧困削減に向けた取組みとしての小規模農家への支援。そして、中規模農家を対</p>	

象とした農業の商業化をめざした農業分野の強化、である。現行の暫定3カ年計画の対象期間が終わるため、国家開発計画である新暫定3カ年計画が導入されるが、新計画はネパール語版しかなく、英語版はまだ完成していない。

以上

訪問先	Ministry of Agriculture and Cooperatives (MOAC)	No.
日時	2010年6月30日 11:30~12:20	
面談者	Dr. Purushottam Mainali, Joint Secretary of Planning Division Ms. Shabnam Shivakoti, Senior Plant Protection Officer, Planning Div. Mr. Mahendra N. Poudel, Sr. Agri. Economist, Foreign Aid Coordination Section Chief	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	縦田所員（JICA ネパール事務所）	
記録者	赤澤	

内容

本件プロジェクトの要請元である農業・協同組合省（MoAC）の Planning Division と協議。冒頭、萩原団長より本格調査は2010年11月~12月に開始する予定で、基礎調査、パイロットプロジェクト、マスタープラン策定によって構成されること、詳細については調査団がシンズリ郡への現地調査より戻ってから、7月4日以降に S/W 協議で意見交換を行い、6日午前中までに M/M 締結を予定していることを説明。

先方より、①園芸作物、②畜産品、③水産品（注：水産物は要請書には含まれていない）が対象地域において有望であり、可能性を広く検討してもらいたいとの要望があった。また、MoACの事務次官が一村一品のモデルである大分県を視察した結果、ネパールでも①生産、収穫、加工、マーケティングの一連のバリューチェーンを踏まえた農業の商業展開、②加工、品質管理による輸出振興、を進めたいとの発言があった。萩原団長より、水産品は要請書に含まれていなかったことから、予算の制約等の問題があることを説明。また、商業展開は本件プロジェクトで取り組むことになるが、海外市場をマーケットとした農産品の輸出には日本の農水省が反応することから、まずは国内市場での販売に注力すべきであることを提案。これを受けて、MoACは水産品を本件プロジェクトに含めないことは了解。ただし、水産品については他のプロジェクトとして支援を要請したい、との発言があった。

先方より、本格調査段階でのカウンターパートについて質問があり、三木団員より事前の協議どおり、本格調査段階では MoAC の Planning Division がカウンターパートになることを確認。先方からは、同省では人事異動が頻繁にあることから、プロジェクト期間中にカウンターパートが交替する可能性があるとの発言があった。さらに、萩原団長より、通常はコンサルタントの担当分野ごとにカウンターパートが指名されることを説明。本事前調査段階で具体的に特定する必要はないが、本件プロジェクトで必要なカウンターパート人材を MoAC で指名することができるか確認したところ、先方からは問題

ないとの発言があった。

以上

訪問先	Ministry of Local Development (MoLD)	No.
日時	2010年6月30日 13:40～14:15	
面談者	Mr. Dinesh Kumar Thapaliya, Joint Secretary Mr. Purusottam Nepal, Under Secretary, Planning and Foreign Aid Co-operation Section	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者		
記録者	赤澤	

内容

DDC の上部組織である地方開発省（MoLD）を訪問。萩原団長より本件プロジェクトの概要を説明し、続いて意見交換。先方より、Terai 地域とカトマンズをつなぐシンズリ道路建設の意義は非常に大きく、本件プロジェクトに対しても協力する意向が表明された。続いて、実施機関、DDC の役割、プロジェクトの modality 等について質問があり、実施機関は MoAC であること、既に対象 4 郡が選定されていること、プロジェクトの実施内容について説明。

DDC は地方政府を管理するユニットであり、セクター別の政策を計画、ガイドラインの策定等を行っている。農業セクターは地方への権限移譲が進んでおり、普及サービスは地方政府が直接管理しているため、本件プロジェクトのカウンターパートは対象地域の DDC がふさわしい。カブレ郡では過去に JICA 農業開発ボランティアが小規模高付加価値農産品の技術支援を行った経緯から、地域住民も JICA の活動についてよく知っている。各地域が潜在的可能性があるると推奨する地場産品が対象であれば、DDC としても本件プロジェクトへの支援を行いやすい。

萩原団長より、プロジェクト実施にかかるコストを MoLD が一部負担する可能性について聞いたところ、ネパール財務省と協議をして、合意しなければならないが、不可能ではないとの発言があった。過去の JICA 案件で資金面を両国で負担した事例があるほか、各 DDC は農業開発の予算を確保しているはずである。ただし、DDC が資金面で負担をする場合、DDC の予算である DDF（District Development Fund、DDF は地方開発省から DDC への交付金、DDC の独自歳入、ドナー資金などが混ざるバスケット型となっている）を通じた資金拠出になる。この場合は、JICA の本案件資金が DDF に入る必要があり、DDF の下で DDC の負担とブレンドされた支出となる。

DDC も NPC の国家開発計画に準じて地域開発計画やセクター別計画を策定している。新暫定 3 カ年計画が発表されるタイミングで、新地域開発計画が発表されるが内容は大きく変わっていない。また、DDC には情報センター（DIC：District Information Center）が併設されており、そこで上記計画は閲覧可能である。

萩原団長より、本格調査開始後に設置される Steering Committee への参加を打診した

ところ、先方了解。中央からの代表として MoLD が参加、地方からは対象郡の DDC が参加することになる。その際、先方から本格調査のファイナルドラフトレポートを共有させてほしいという点と、プロジェクトのオーナーシップを高める意味からも DDC をプロジェクトの focal point にすることが提案された。

以上

訪問先	Federation of Nepalese Chamber of Commerce & Industry (FNCCI)/ Agro Enterprise Center (AEC)	No.
日時	2010年6月30日 14:30～15:30	
面談者	Mr. Krishna P. Tamrakar, Vice President of FNCCI Mr. Pradip Maharjan, Chief Executive Officer of AEC	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	河村 JICA 専門家、樫田所員（JICA ネパール事務所）	
記録者	赤澤	

内容

ネパール商工会議所（FNCCI）と民間農業セクターの業界団体である AEC を訪問、意見交換。FNCCI 傘下には国内の各地域から 92 の商工会議所がメンバーとなっており、77 の業界団体がメンバーとなっている。うち、農業関連の業界団体は 13 団体。AEC は農業セクターの商業化を支援しており、高付加価値農産品の生産やマーケティング支援として MIS（Market Information Service）の提供を行っている。さらに、定期的な展示会への出展（FOODEX 等）も行っている。

畜産品については、家禽の業界団体がメンバーに入っており、家禽業はカブレ郡がひとつの pocket area になっている。カブレ郡はカトマンズに近いという地理的優位性はあるが、紛争によって被害を受けた地域のひとつなので、プロジェクトによる支援が重要である。

煉瓦工場による農産物の被害も深刻である。バクタプールでは煉瓦工場が排出する粉塵等によってキャベツやカリフラワーが影響を受けている。中央政府は大気汚染を回避するために煉瓦工場をカトマンズ以外に移転させる政策をとることが多い（逆に、マオイストが強くなると煉瓦工場はカトマンズに押し戻されてくる）が、現政権の煉瓦工場への圧力はそこまで厳しくない。今後、政府が強硬な態度をとった場合、シンズリ道路沿線に煉瓦工場が移転することになると、農産品に影響を及ぼすので注意が必要である。煉瓦工場が使っている石炭はインドから輸入している粗悪品が多く、時にはタイヤを燃やすこともある。煙突も古く管理が悪く、モニタリング体制も弱いため、環境への影響は深刻である。プロジェクト開始前に政府に働きかけて煉瓦工場がシンズリ道路沿線に移転してこないように先に手を打ってはどうか。

ネパールでは農産物の半分以上はインドからの輸入に頼り、近年は中国やブータンからも輸入している。生産性が低く、生計維持レベルで農民の収入源となっていないことが問題。市場に出回るタマネギはほぼ全量をインドからの安価な輸入品に依存。農業保

証制度はなく、投資が進まない。有望産品としてハーブ（医療用ハーブも含む）、例えばアスパラガス（医療用ハーブの原料となる）、山椒などがある。ハーブの生産は多くの労働力を必要とするため、貧困層を参加させることができる。コミュニティ参加型の森林管理・森林保全システムである Community Forestry System もまた、貧困層や社会的弱者を取り込むことができるシステムである。このシステムでは活動による収益の 90% は貧困層支援や貧困削減に向けられ、10%を Community Fund に振り分けている。

以上

訪問先	District Development Office (DDC), Sindhuli District	No.
日時	2010年7月1日 14:30～15:30	
面談者	Mr. Ganesh Gyanwak, Local Development Officer Mr. Sagar Dhakal, Programming Officer	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	河村 JICA 専門家、樫田所員（JICA ネパール事務所）	
記録者	赤澤	
内容	<p>プロジェクト対象地域のひとつであるシンズリ郡の郡開発事務所を訪問。冒頭、三木団員より案件概要について説明、そのあとで意見交換。主な発言要旨は以下のとおり。</p> <p>当該地域において優先度の高い開発分野は、①アクセス道路、②社会開発、③インフラ開発。商業化に適する潜在的可能性のある産品はジュナール、パイナップル、レモン等のフルーツとアスパラガス等。</p> <p>DDC の機能は、農民グループの組織強化における調整だが、中央政府からの予算は限られており、農業予算は 937 万 9,000 ルピー。調査団より、パイロットプロジェクト実施に際して、参加型という趣旨からも当該 DDC から予算の一部負担を打診。また、Steering Committee への参加と併設されている情報センターの利用（情報の共有）について要請。</p> <p>案件実施における社会的包摂という観点からは、土地なし農民や貧困層への配慮が必要であることが指摘された。貧困層のなかには出稼ぎに出る農民も多く、特に、西部地域からはカタール、UAE 等のアラブ諸国へ出稼ぎに出る人が多い。このような出稼ぎ労働者も、生計向上が実現されれば、海外から当該郡に戻ってくるだろう。</p>	

以上

訪問先	District Agriculture Development Center (DADO), Sindhuli District	No.
日時	2010年7月1日 15:30～16:30	
面談者	Mr. Ram Sah, Plant Protection, Mr. Gopal Aeo, Agriculture Officer, Mr. Nathuni Yadav, Junior Technician	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	河村 JICA 専門家、樫田所員（JICA ネパール事務所）	
記録者	赤澤	
内容		
<p>プロジェクト対象地域のひとつであるシンズリ郡の郡農業開発事務所を訪問。冒頭、三木団員より案件概要について説明、そのあとで質問票の回収と回答内容の確認。続いて意見交換。主な発言要旨は以下のとおり。</p> <p>シンズリ郡 DADO の予算は、プログラム予算が 160 万ルピー、全体の予算が 1,700 万ルピー。対象エリアにサービスセンターが 6 カ所、コンタクトセンターが 2 カ所。（両者の違いを質問したところ）サービスセンター数はネパール政府によって定められており、6 カ所を超える場合は、名称を変えて設置しているとの由。</p> <p>DADO は研修を実施しているが、その研修成果が十分に活用されていないことが問題。農民は、研修内容よりも日当が目当てで参加している。しかし、日当を支払わなければ、研修に参加してこない。研修後のモニタリング制度や評価システムは導入されておらず、研修実施後の管理はなされていない。農民の言い分としては、研修を受けても、灌漑施設がなければ実践できないとの由で、研修が有効活用されていない。他方、研修内容や研修方法が魅力的でなく、農民が積極的に研修に参加しないという意見もあった（河村専門家）。</p> <p>サービスセンターの普及員といっても定期的に農家を訪ねて指導・改善を行っているわけではない。普及員による指導は、教材にのっとなって行われており、普及員たちも定期的に研修を受けており、能力向上の機会を得ているはずである。サービスセンターは 1 カ所につき、8～10 カ所の村落開発委員会（Village Development Committee: VDC）をカバーしているが、対象 DVC の数が多すぎて効果的にサービスを提供できていないことが問題。</p>		
以上		

訪問先	District Livestock Service Center (DLSO), Sindhuli District	No.
日時	2010年7月1日 17:30~18:30	
面談者	Mr. Rajendra Sah, Veterinary Officer, Mr. Tej Thapa, Junior Technician, Mr. Prakash Bakwa, Junior Technician	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	河村 JICA 専門家、樫田所員（JICA ネパール事務所）	
記録者	赤澤	
内容	<p>プロジェクト対象地域のひとつであるシンズリ郡の郡畜産サービス事務所を訪問。冒頭、三木団員より案件概要について説明、そのあとで質問票の回収と回答内容の確認。続いて意見交換。主な発言要旨は以下のとおり。</p> <p>当該 DLSO の対象エリアには酪農協同組合があり、150名の酪農民がメンバーになっている。酪農協同組合は繁殖目的で乳用雄牛の飼育を行っており、協同組合内にある小規模グループに雄牛を提供している。各グループで飼育している乳用雄牛から生産されるミルクは毎朝、集荷センター（5カ所）に集められ、9時から10時に冷蔵センター（5カ所）で冷却された後、加工されて地元市場で販売されている。</p> <p>当該 DLSO で提供しているサービスは、家畜の飼育・繁殖スキルの向上、給餌、飼料、栄養不足の解消、家畜管理など。モニタリングは定期的には行っておらず、何か問題が発生した場合に、モニタリングを実施している。サブセンターに配置されている技術者は定期的に畜産農家を回っている。</p> <p>潜在的有望性のある畜産物としては、5~6年前までは山羊肉が中心だったが、最近は水牛の割合が増えている。とはいえ、いまだに山羊肉の割合は多く、このエリアを市場としてとらえた場合の有望性という意味では山羊の潜在的可能性が高い。家禽/養鶏も約300世帯の生産農家があり、商業化に向けて有望である。商業化という観点から有望性が高いのは、①鶏、②山羊、③雄水牛、④豚、の順番である。シンズリ郡の天候は山羊飼育に適していることに加えて、草地が多く山羊の餌が豊富であるため、有望である。</p> <p>調査団より口蹄疫について質問したところ、2~3年前から感染例が増えており、15~20村で口蹄疫が発生している。リング形式でワクチン接種をして対応しているだけで、日本のような殺処分は行っていない。獣医はサブセンター1カ所につき、1人の獣医/技術者しか配置されていないため、十分なサービスの提供ができていないことが問題。また、DLSO 予算が限られていることからサブセンターに常備してある薬も少ない。</p> <p>シンズリ道路が完成すると、カトマンズやテライ平野の市場へのアクセスが可能となり、新しい市場確保につながる。ジュナール等果物と野菜は、カトマンズが主な市場になるだろう。</p> <p>牛乳の生産量を増加する方法は、①生産性の高い乳牛を購入（replacement）、②人工授精の導入、③飼料の改善、④農民への指導、である。3年間のプログラムである Commercial Livestock Farming では、25畜産農家を対象に乳牛を交換するための助成金を交付。助成金は、乳牛の処分/購入以外にも、輸送費、研修費、飼料購入費、薬品購入費等にも交付可能。</p>	

(DLSO と DDC の連携について聞いたところ) DDC との定期的会合はないが、頻繁に協議を行っている。DLSO は、計画段階では DDC から呼び出され、DDC の相談にのっているにもかかわらず、予算配分の段階で DLSO が関与することもなければ、当該エリア内の VDC も関与していない最近では、DLSO の予算は 20～40%削減されており、プログラム形成段階では DDC と連携していても、実施段階では予算が削減され、同じプログラムを減額された予算で実施している。現在、DDC の上記プログラムと地域森林プログラム (IFAD) の 2 件を実施中だが、後者は中央政府レベルで予算措置がなされるため、予算は削減されていない。DDC との連携では、DLSO は研修実施、パンフレット・冊子の作成、DDC の技術者に対する指導等が可能である。

以上

訪問先	Junar Cultivation Area (ジュナール栽培状況の視察)	No.
日時	2010年7月2日 9:30～11:00	
面談者	Mr. Dipak. P. Koirara, Chairman, Junar Central Cooperative Union Ltd. Mr. Badri Thanpa, Secretary, Junar Central Cooperative Union Ltd.	
調査団員	萩原団長/総括、志賀団員 (農業商業化振興)、松村団員 (調査管理)、岸本団員 (農産物市場/流通)、三木団員 (協力企画)、赤澤 (環境社会配慮/評価分析)	
同席者	河村 JICA 専門家、縦田所員 (JICA ネパール事務所)	
記録者	赤澤	
内容	<p>シンズリ郡の有望産品であるジュナールの栽培状況を視察。ジュナール栽培地では、剪定を行っていないため、成長して木が高くなり過ぎていること、葉が付き過ぎていること、栽培面積に対して木を植え過ぎていること等が問題。研修で指導している栽培面積は、5m×5m、あるいは 4m×4m。苗代の 50%は助成されており、農薬は無償配布か、半額補助がある。小規模だが、生産農家の組合があり毎月会合を開催している。組合で協議する内容は、病害対策、農薬利用、剪定などについて。この会合は情報共有 (特に、会合が開催される時期に発生する可能性のある病害についての情報交換が重要) と集金の目的で開催されている。組合では等級分類を導入しており、果実は A クラスから D クラスまで分類される。等級の高い A クラス、B クラスのジュナールはカトマンズで販売される。C クラス、D クラスはジュースにしている。肥料は堆肥が主流。</p> <p>農家から行政への要望としては、農家は全般的に食糧自給が優先するため、トウモロコシを植えている。しかし、トウモロコシが養分を吸い上げてしまうため、ジュナールはトウモロコシと intercrop できない。他に intercrop できる作物があるとよい。加えて、ジュナールが生産できなかった場合に、保証・保険制度があると助かる。これはネパールでそのような法制度が整備されていないことに起因する。</p> <p>ジュナールは収穫後、そのまま土の上で冷やしてから、竹籠でかついで道路まで運び、段ボールに詰めて輸送している。カトマンズにジュナール組合の連盟があり、カトマンズ市場での需要量を知らせてくるため、必要量をカトマンズに送り、残りはシンズリバ</p>	

ザールで販売。カトマンズまでの道路事情は悪く、南回りで 18 時間かけて輸送している（TATA の pick-up トラック）。輸送は物流業者に委託している。

ジュナール栽培は、日本からの支援を受けて栽培農家がやる気になっていたが、道路事情と市場へのアクセスが悪く、やる気が停滞してしまった。最近になってシンズリ道路完成により、再び若い人たちがやる気を見せている。協同組合ができて、共同集荷の話なども出てきている。

以上

訪問先	Junar Central Cooperative Union Ltd., Sindhuli District	No.
日時	2010 年 7 月 2 日 12:30～14:00	
面談者	Mr. Dipak. P. Koirara, Chairman, Junar Central Cooperative Union Ltd. Mr. Badri Thanpa, Secretary, Junar Central Cooperative Union Ltd.	
調査団員	萩原団長/総括、志賀団員（農業商業化振興）、松村団員（調査管理）、岸本団員（農産物市場/流通）、三木団員（協力企画）、赤澤（環境社会配慮/評価分析）	
同席者	河村 JICA 専門家、樫田所員（JICA ネパール事務所）	
記録者	赤澤	

内容

シンズリ郡のジュナール生産農家協同組合の上部組織である Junar Central Cooperative Union Ltd.を訪問。冒頭、先方より活動概要についてプレゼン。主な活動は農民グループの組織化、農民への技術支援、冷蔵貯蔵施設の所有、政府機関や NGO 等との連携。

この組織には各地のジュナール生産者や加工者による協同組合及び農民グループが加盟している。シンズリ郡には、3,185 戸の生産農家があり、合計 60 万本のジュナールの木が植えられている。現在、1,125 戸が協同組合に加入しているが、協同組合に加入していない農家も多い（約 2,000 戸）ため、各世帯で積極的に組合に加入することを推進している。協同組合に加入する際、運営資金としてまとまった資金（最低 1,000 ルピー）を出資して、シェアホルダーとなることができる。協同組合に加入していない約 2,000 戸の生産農家は、会費（10 ルピー）を払い普及サービスを受けている。協同組合活動に対して、政府からの補助金・助成金はないため、資金不足で運営が厳しい。VDC からある程度の支援があることと、あとはボランティアの支援を受けている。日本の援助による冷蔵保管施設（4 月から稼働開始）のメンテナンスやその他のコストは、メンバーからの会費で賄っている。施設のメンテナンスについては、エンジニアが 2 人常駐しており、1 人はインド人の技師である。

シンズリ郡におけるジュナール生産量の 40～45%はカトマンズで販売されている。ジュナールが等級別に分類される割合は、A クラスが 20%、B クラスが 40%、C クラスが 30%、D クラスが 10%である。A クラスは約 4 個で 1 キロ相当、B クラスは 6 個で 1 キロ相当、C クラスになると 10 個で 1 キロ程度。ただし、シンズリ郡で生産されるジュナール 8,000 トンのうち、等級分類をしたのは 400 トンのみで、まだ分類システムが確立されていない。ネパール政府が供与した機械で分類をすると、果実を転がすために産

品にキズがついて価値が下がるため、現在はマニュアルで果実の大きさによって分類している。AクラスとBクラスを増やす努力は、あまりなされていない。ネパールでは適性化や間引きをしないため、実をつけ過ぎていて、実に対して栄養分が足りない。現在のところ、日本式の剪定や適性化は実践されていない。技術者が不足していることと、農家への啓発を強化する必要があることが課題。

女性の関与については、協同組合では5割以上が女性メンバーのところもあり、また、女性が一家の代表として組合員になっているケースも多い。麦やトウモロコシの栽培はマニュアルで作業が煩雑だが、ジュナル栽培や換金作物の栽培は女性の所得向上に貢献し、さらに組合活動等を通じて女性の発言力が増大するというメリットがある。

以上

訪問先	カブレ郡 Deurari 村 乳協同組合	No.
日時	7月3日	
面談者	Mr. Deepal Dhodal/Office Assistant, Mr. Balram koirda/Manager	
調査団員	岸本	
同席者	河村専門家	
記録者	岸本	
内容	<ul style="list-style-type: none"> ・約1年目から組合として処理能力3,000リットルの乳冷却装置を導入し運営している ・主な出荷先はカブレ郡 BANEPA の乳加工工場である ・処理手数料は1NRs./リットルである ・組合員は1人当たり2,200NRs.の出資金を出している ・近い将来、飲用乳に加工し、独自に販売することを目標に計画を進めている ・行政機関には予算がなく支援は受けていない。必要経費はすべて組合が負担している 	

以上