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Discussion Paper on Promoting Investment in Agriculture Sector of Nepal





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SECTION I: INTRODUCTION

Agriculture development has always been a top priority policy goal in Nepal. It is also closely linked with efforts for poverty alleviation and rural development. The farm sector employs 77.5 percent of the total population (CBS, 2013). The agriculture sector contributed to almost 35 percent of GDP in the fiscal year 2012-13 (MoF, 2013) and provides livelihood to about 76 percent of households (ADB, 2013). Due to this, agriculture is a sector of great importance.

Agriculture development needs a holistic value chain development strategy that integrates backward and forward linkages such that the eventual gains from commercialization of agriculture reaches farmers and helps them actively participate in the economy. Government of Nepal (GoN) has taken an integrated value chain approach in its development efforts and encouraged its development partners to adopt a similar approach to agriculture development in Nepal.

Government of Nepal (GoN) has been actively engaged in developing the agriculture sector of Nepal for many decades and has made efforts to adapt to changed market circumstances through various plans, policies and programs such as Agriculture Perspective Plan (APP), periodic plans and annual budgetary spending. GoN has recognized public sector, private sector and cooperatives as the three pillars to agriculture development of Nepal.

This paper has been prepared for the Nepal Economic Summit, 2014 by the 'Working Committee on Agriculture', comprised of representatives from the government, private sector, development agencies and civil society organizations. The paper borrows from existing researches that have been done by various agencies involved in the agriculture sector in Nepal.

The objective of this paper is twofold: Firstly, it aims to provide an overview of existing scenario, opportunities for private sector investment and the policy, institutional and legal framework that governs the various sub-sectors of agriculture; and secondly it aims to initiate a discussion on increasing private sector investment in agriculture through an enabling environment. Encouraging investments which are likely to produce broad based benefits to the farmers and aid commercialization have been at the center of analysis.

This paper also uses the chain approach in its presentation and is categorized into three sections viz. backward linkages (including inputs & agriculture production), forward linkages (including value addition & trade) and the way forward to increase investment in each of these sectors.

SECTION II: BACKWARD LINKAGES

Placing farmers in the centre stage, backward linkages include all activities associated with primary production. In this sense, it can further be classified into two broad categories – input market and agricultural production.



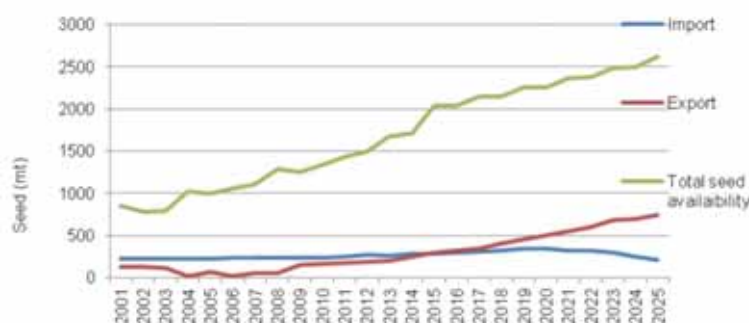
A. Existing Scenario & Potential of backward linkages

1. INPUT MARKET

Increasing agricultural factor productivity has been at the heart of any agriculture development process. The range of materials used to enhance agriculture factor productivity such as land, labor, seed, fertilizers, technology, credit etc. are considered inputs. Similarly, inputs for livestock/fisheries include breed, vaccines and feed.

SEED& NURSERY

Presently, there are four different type of agencies involved in the seed sector development in Nepal: public sector (NARC, DOA, NSC etc), community (DISSPRO, CBSP, CSB, Cooperatives), private sector (SEAN, Agro vets, Seed Companies, importers and distributors) and non-governmental organizations (CEAPRED, LIBIRD, FORWARD etc.). Some specific projects supported by development partners include Kisankalagi Unnat Biu-Bijan Karyakram (KUBK), Knowledge based Integrated Sustainable Agriculture and Nutrition (KISAN), Project on Agriculture Commercialisation and Trade (PACT) and High Value Agriculture Project (HVAP) among others.



Trend of vegetable seed import, export and availability – Source, Seed Vision (2013-2025)

ness. According to the National Seed Vision (2013-2025), 52 metric ton (mt) of breeder seed of selected food crops and vegetables was produced in 2009 and the amount was 'adequate to fulfil the present total breeder seed requirements' (p.). However, it also mentions that breeder seeds of all farmer preferred varieties are not currently available and estimates that the requirement of breeder seed will increase to 88 metric ton and that of foundation seed will increase to 3000 metric ton by 2025. The emphasis from the farmer is on the quality and varietal choice. GoN has invested a total of NRs. 856 million under the headings 'Seeds Promotion and Quality Control Program, Cooperative Farming including Small Irrigation, Fertilizer and Seed Transportation and Improved Seed for Farmer's Programme' in the fiscal year 2013/14 (GoN, 2014). There is significant involvement of the private sector in seed multiplication and distribution while community led initiatives and NGOs involvement has been instrumental in seed distribution in the last five years (National Seed Vision, 2013-2025). All of these developments are taking place in a time when the National Seed Lab under Seed Quality Control Centre has received international accreditation. Furthermore, two private seed labs hosted by Center for Environmental and Agricultural Policy Research and Extension (CEAPRED) and Seed Entrepreneurs Association of Nepal (SEAN) have got national accreditation.

Departments of Agriculture and Livestock Services of the GoN also runs several well-equipped nurseries of fish, horticultural crops, and livestock. These are termed as 'Resource Centres' and are also promoting private sector to avail quality seeds, saplings, and breeds to farmers. Consequently, there are several privately run nurseries especially in floriculture and cash crops like tea, coffee, cardamom etc. There is a huge volume of small scale private entrepreneurs' investment in such nurseries in Nepal.



Opportunities for private sector participation

- The trend of increasing demand for foundation seeds of major cereals crops demonstrates large investment potential as the demand is likely to increase to 3000 metric tons by 2025.
- There is a growing realization among the stakeholders of agricultural development that hybrid vegetable seeds are gaining popularity among farmers.
- An increasing trend of commercial livestock farming demonstrates high growth potential for , forage and pasture seeds in Nepal. Establishment of organized nurseries that can maintain international quality standards is another potential area for private sector investment. Currently the nurseries are scattered and are operating in small scale. There is a need of integrating these scattered nurseries in value chain and upgrading them to produce quality materials.

Fertilizers

MoAD estimates the annual demand of fertilizers at about 700,000 metric tons out of which 500,000 metric ton is current effective demand and the existing supply stands at 300,000 metric tons. The government allocated NRs. 6.07 billion as subsidies for chemical and organic fertilizer and improved seed and mechanization of agriculture in the FY2013/14 (GoN, 2014). Since its establishment in 1966, Agriculture Input Company Limited (AICL) was the responsible government agency for procurement and distribution of fertilizers. It introduced subsidies in 1973-74. Fertilizer trade was then deregulated in 1997 and the sales of fertilizers by the private sector increased after deregulation till 2003/04. On the other hand, the sales of AICL were highest during 1997/98 but gradually decreased thereafter. The fall in supply after 1999 was mainly due to rise in price of fertilizer in international market, inconfident private sectors and uncontrolled inflow of subsidized Indian fertilizers. As a response, the GoN reintroduced fertilizer subsidy on a limited scale in 2009. Lately, the government has also been promoting organic fertilizer by providing incentives through its plans and policies.

The private sector, nevertheless, has been involved in importing chemical fertilizer though in a smaller quantity. Similarly, a number of industries, especially in recent years, are engaged in bio-fertilizer production. They range from small scale to medium scale enterprises. GoN has also announced special incentives to companies engaged in organic and bio-fertilizer production in the FY 2012/13 through its annual budget.

Opportunities for private sector participation

- As the effective demand for fertilizer has not yet been met, there is potential for private sector engagement both in fertilizer import and fertilizer production in Nepal. Appreciating that competing with subsidized Indian fertilizer is a critical issue in importing or producing chemical fertilizer in Nepal, a more viable alternative for private sector participation in fertilizer business could either be engaging in public-private partnerships with an incentive mechanism or to involve in bio-fertilizer production and distribution.

Land

In Nepal, about 17 percent of the total land is arable. Due to a system of inheritance, land fragmentation is on the rise with average landholding of 0.68 ha (CBS, 2013). Land management is rendered difficult especially in hills and mountains due to land fragmentation. The past decade of conflict also resulted in internal migration from rural to urban areas resulting in a loss of agricultural land in peri-urban areas which now have been converted to residential areas. GoN has introduced the National Land Use policy in 2012 to address this issue. Similarly, Agri-business Policy has also covered the issue of land use to a certain extent. In order to encourage commercialization of agriculture, GoN has made provisions to waive the land ceiling for agricultural enterprises.



es and other industrial enterprise through an executive order in 2011. This has opened up potential for land consolidation and commercial farming. In this policy context, there is a potential for private sector to engage in agri-food product value chain development.

Opportunities for private sector participation

- With the provision of contract farming and other measures such as leasing of land being finalized by GoN, along with special provisions for land acquisition under a registered agro-enterprise, there are plenty of opportunities for private sector investment in large tracts of land for commercial farming.

Infrastructure

Infrastructure like Irrigation canals, road and electricity are important enabling infrastructure for the agriculture development in the country. According to the Department of Irrigation, out of the total 14.718 million hectare area of the country, only 2.641 million hectare area is arable and 1.766 million hectare land is irrigable. 76 percent of potential irrigable area lies in the Terai region of Nepal. 53 percent of the agricultural land is irrigated in Nepal (CBS, 2013). Deep tube well, shallow tube well as well as surface irrigation are prevalent in Nepal and in the recent times, the government has been encouraging micro irrigation system to be implemented at small farmers' level.

During the TYP period (2007/08 – 2009/10), remarkable achievements were made in the expansion of roads. Till date a total of 25,133 km of strategic roads have been built; of the total, 7,799 km are blacktopped, 6,830 km gravel and 10,504 km are dirt roads. Roads now reach 73 of 75 districts, and an additional 1,609 bridges have come into operation. In order to manage and sustain development in the road sector, national highways, feeder roads and strategic city- linking roads have been classified as strategic roads and district, urban and rural roads as local roads. The Ten-Year Primary Investment Plan (2007-2016) is being implemented to ensure that roads and bridges are constructed and repaired as necessary.

Similarly, GoN through Alternative Energy Promotion Center (AEPC) has invested heavily in energy solutions for the rural areas comprised of micro hydro plants, solar energy and biogas energy. There is still a huge gap of approximately 700 MW in energy demand and supply in Nepal.

In terms of agriculture infrastructure, the National Seed Lab and Central Food Lab have received international accreditation.

Opportunities for private sector participation

- GoN is also open to public private partnership in terms of infrastructure development and this is an avenue for private sector participation in infrastructure development. GoN has introduced the Build, Own, Operate and Transfer (BOOT) Act in 2006 especially targeting private sector participation in infrastructure development especially for projects that cost more than NRs.20 million. Joint financing options are also provided by this act.

Labor

According to Department of Foreign Employment, an estimated 2.5 million Nepalese citizens have migrated to other countries in search of better opportunities excluding the population that has left for India (DoFE, 2012). Most of the migrants are men from rural areas involved in seasonal farming. This phenomenon has changed the nature of farming households and placed women in the forefront over the last decade. According to the Agriculture Census, the percentage of women farmers has increased from 8 percent in 2001/02 to 19 percent in 2011/12 (CBS, 2013). In addition, this has also led to acute shortage of farm labor forcing many to either leave



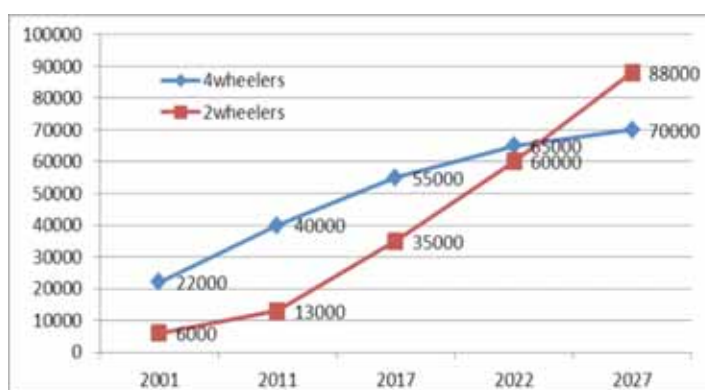
their land fallow or adopt mechanization.

In terms of skilled labor the shortage is largely due to the mismatch of training received via formal education and the requirement of the market. Realizing the need to streamline its efforts in capacitating human resource, GoN established the University of Agriculture and Forestry in 2010. Currently, this University has an agriculture campus in Rampur, Chitwan and a Forestry campus in Pokhara. In addition to this, GoN has also provisioned for technical training courses in various aspects of agriculture through its Center for Technical Education and Vocational Training (CTEVT). CTEVT runs intermediate and diploma courses for plant and animal science and food technology as well as several shorter term vocational training courses related to farming, processing and livestock management and animal health. Although these formal and informal courses have developed a large number of skilled resources, there still is a mismatch between the demand and supply of skilled resources.

In order to attract more young people in the agriculture sector, GoN has allocated budget for training and seed money for agro-enterprise in its annual budget of 2013/14. The working procedure of this program has been finalized by MoAD and the program has been launched.

Opportunities for private sector participation

- Given the mismatch of labor skills in terms of demand and supply, there is opportunity for private sector investment in human resource capacity development through educational institutions pertaining to agricultural study in Nepal. Since a separate university has been initiated, there is opportunity for gaining affiliation from this institution and producing capable human resource that meet the market's demand. In addition, given the GoN's incentive scheme for youth, technical training is another area for private sector participation.



Production trend of tea from 2000 to 2010: Source – USAID, 2011

Technology, Research & Extension

Due to increased number of people seeking foreign employment, shortages of workers have led people to either leave their fields fallow or adopt mechanization. The trend of mechanization is apparent and has helped lift agricultural productivity in several regions of Nepal. In the Terai region increase in mechanization resulted from the use of 2-wheeled Chinese tractors apart from existing use of 4-wheeled ones, mostly Indian tractors. Even in the hilly and mountainous region, 2-wheeled tractors are gaining popularity. Similarly, 2-wheeled mini tillers have also increased owing to their compatibility to small land holdings size. In addition, there have been local innovations on farming equipment required at the local level including in reapers and trolleys.

According to 2010 estimates, there are 120,000 pump set, 190,000 threshers, 10,000 mills and 40,000 hand cranked winnowing fan in addition to around 50 combined harvester operational mostly in the Terai (MoAD, 2012). This trend of mechanization has been growing over the past years as labor shortages arise.

Similarly, in the livestock sector, commercial dairy farming has increased resulting in increased mechanization in this sector. Milking, storage, cooling and processing technologies associated with dairy production have also seen an expansion.



The Nepal Agricultural Research Council (NARC) is a key player in Nepal's agricultural research system. Its priority in the past was on technology generation, mainly on rice, wheat, maize, oilseeds and legumes for irrigated and high input conditions. Few efforts have been made in recent years to develop technologies for rain-fed and resource-poor environments. Recently, NARC has developed its 20 year vision document for 2011 to 2030. NARC's research priorities are on technology generation for cereals, legumes, horticulture, livestock, fisheries and associated cross cutting issues related to socioeconomics and the environment.

Nepalese public extension system is led by the activities of the two departments under the Ministry of Agriculture Development – the Department of Agriculture (DoA) and the Department of Livestock Services (DLS). Although both the departments have setup their parallel district offices and field offices (service centers) in all the 75 districts of the country, they have devolved the extension services to the district level pursuant to the decentralization policy of the Government of Nepal and Local Self Governance Act of 1999. Both the departments have been delivering services to farmers using farmer group approach since 1990. The number of groups in each district ranges from 100 to 400. Government statistics show 22,358 and 14,360 farmer groups under the DoA and DLS respectively (Agriculture Extension Directorate, 2009/10).

Opportunities for private sector

- As the figure above demonstrates, there is potential in mechanization especially in powering the agriculture sector with tractors. Investment geared towards improvements in the 2 wheeled tractors can prove to be beneficial in the long run.
- Research focused on commercial viability and market research are two virgin areas in terms of agriculture research. This is an area that has potential for private sector investment. The information from these types of researches can be purchased by the Government for wider dissemination to farmers and to promote agro-enterprises. In addition, existing agro-enterprises like dairy firms and poultry firms would also be potential customers for this kind of research.
- Since mechanization is picking up in Nepal due to shortage of agricultural labor, there is vast potential for private sector investment in mechanization. There has been an increasing trend towards mechanization in the recent past and local innovations made to suit local conditions would be highly profitable ventures.
- In terms of extension services, the area is predominantly led by public sector. However, independent Junior Technical Assistants (JTAs) certified by CTEVT with entrepreneurial ability have also emerged in rural areas providing private extension services. This shows potential for private sector investment in extension services as well.

Agriculture Financing

In order to facilitate access to credit in the agriculture sector, GoN initiated efforts by establishing the Agriculture Development Bank in 1968. Since then, GoN has also worked through the cooperative movement to enable access to finance to small holding farmers. By 2013, the credit availed to agriculture sector through banking and financial institution (BFIs) has increased to NRs.37.1 billion (NRB, 2013). Although proportional distribution indicates, agriculture credit flow through Kathmandu to be the highest, the fact that most BFIs headquarters are located in Kathmandu and that the loan processing happens through Kathmandu can attribute to this phenomenon. Most of the agriculture credit has been concentrated on 'agriculture and agriculture related services' while credit for specific commodities like tobacco has seen a decline in the recent years. In the last six months, credit directed towards livestock purchase and livestock industry expansion has seen the largest rate of growth



(NRB, 2013). In order to promote credit flow to agriculture, NRB has issued a directive to commercial banks to mandatorily provide 20 percent of loans to productive sector which includes agriculture.

There are nearly 7000 agricultural cooperatives registered under the Department of Cooperatives which report a credit flow of NRs.4.5 million for the year 2012/13. However, the total credit flow from cooperatives that include several agricultural as well as other activities was reported at NRs.133 million during the same time period (DoC, 2013).

As the data above indicates, there are mainly two types of financial institutions in the agriculture financing market: larger commercial banks are more suitable to finance large scale agro-enterprises while micro finance institutions cater to the rural areas and small farmers.

According to the Agriculture Census, 22 percent of farmers reported taking a credit while 42 percent of the farmers reported the need for more credit (CBS, 2013).

Opportunities for private sector

There are two kinds of opportunities for private sector participation arising from agricultural financing provisions:

- Firstly, there is an opportunity to capitalize on the soft loans provisioned by the Government to establish agro-enterprises and invest in commercial farming ventures. These soft loans will help private sector recover their investments at a faster pace.
- Secondly, the reach of MFIs to rural farmers is still limited. At the same time, a lot of remittance income has reached rural areas of Nepal. This provides further opportunities to establish financial institutions. This is an area that the private sector can invest to facilitate credit flow to small farmers.

AGRICULTURAL PRODUCTION

The average landholding in Nepal is 0.68 ha (CBS, 2013). According to the Agriculture Census Survey for 2011/12, majority of the holdings fall under 0.5 ha to under 2 ha. These farmers have invested in cauliflower in terms of vegetable production, garlic in terms of temporary crop production, mustard in terms of oilseed, potatoes in terms of root vegetables, soybean in terms of leguminous crop and maize and wheat in terms of cereals (CBS, 2013).

In Nepal, majority of the farms plant paddy, maize and wheat as the major crop. In the FY 2012/13 however, the production of paddy and maize suffered a decline while wheat production went up by 2 percent compared to the previous fiscal year. A small percent of land has been dedicated to vegetable production but this experienced an increase of 2.5 percent. Similarly, production of fruits and spices also experienced an increment of 1.5 percent (NRB, 2013). Agriculture Census reports a slight growth in cropping intensity over a period of ten years from 2001/02 to 2011/12. Similarly, it also reports a trend of moving towards cash crops from cereals. Over the 10 year period of the census, all cereal production reported a decline while cash crops like vegetables, fruits and spices reported an increment in production. Similarly, families involved in vegetable production have doubled over this period while the land area dedicated to vegetable farming has increased by 40 percent (CBS, 2013). Organic farming in terms of vegetable production and beans production also has gained a lot of



popularity in the domestic market over the years. This is a niche market approach that holds a lot of potential. Similarly, in terms of livestock, goat, sheep, pig and poultry farming recorded a growth over the last 10 years while cow, buffalo and yak farming recorded a decline (CBS, 2013). In the last six months of FY2012/13, meat and egg production has recorded an increase while dairy production has recorded a slight decline. Goat production has seen an increase of nearly 3 percent during the last fiscal year. Due to GoN's efforts in increasing fisheries, fish production recorded a growth in the last fiscal year (NRB, 2013).

Non Timber Forest Products (NTFPs) have a huge potential in Nepal given the success of community forestry and the fact that 25 percent of land in Nepal is covered by forests. Out of the 238 types of NTFP's open to trade in Nepal, only 100 different varieties are being traded at the moment. Most of the production is export oriented. However, the last fiscal year saw a heavy decline in NTFP production (NRB, 2013).

Orthodox tea is a major export item of Nepal. Nepali Tea bushes are grown at high altitude ranging from 3,000 feet to all the way upto 7,325 feet. Currently main tea growing areas in Nepal are Illam, Jhapa, Panchthar and Dhankuta. The total area under the hill plantation is estimated at 2,153 hectares consisting of 300 hectares of public estates/gardens, 700 hectares under private estate/garden and 1,153 hectares under small holders. At present, the national production volume of the hill orthodox tea is estimated at about 2100 tons.

Public private partnership also has succeeded in expanding agricultural production in Nepal. After the success of One Village One Product (OVOP), a PPP collaboration between MoAD and FNCCI modeled around the Oita prefecture of Japan, the partnership has moved on to One District One Product (ODOP) (FNCCI, 2012).

GoN efforts in agriculture production have been concentrated around food and nutrition security and climate change adaptation. In this respect, GoN put together a Country Investment Plan and has initiated the Agriculture and Food Security Project (AFSP). Similarly, several development partners including WFP, USAID, FAO and SDC among others have invested in orienting Nepali agriculture towards food and nutrition security and adapting to climate change. Food and nutrition security is affected by climate change and therefore, GoN has also prepared the National Adaptation Program of Action (NAPA) to address climate change impact in food and nutrition security. From an investment point of view, these policies are important to highlight opportunities and challenges to investing in the various agricultural produce of Nepal.

Opportunities for private sector participation

Private sector participation in commercial agriculture production has immense potential in Nepal especially because the current production structure is dominated by small farms which are not able to realize economies of scale. Some of the major areas are outlined as follows:

- NTFP is a sector that holds immense potential in Nepal and is feasible for private sector production. NTFP investment however requires close coordination with community forestry user groups.
- Commercial level organic farming is another area for private sector investment in Nepal. As consumer habits in urban area changes and consumers become more aware of health implications, this market demonstrates potential for growth in future. If done on a commercial scale, organic farming is a viable project.
- Livestock farming on a commercial scale also has potential for private sector participation. This includes goat, cattle and poultry for the domestic market while pig farming holds potential of export as well. Nepal currently imports goats from India and they are preferred over Nepali goats owing to the wastage per goat in terms of processing. Therefore, there is potential in better breeds of goats and cattle in Nepal. Cattle have potential due to the growing dairy industry in Nepal. Similarly, Nepal has become self-sufficient in poultry and has space for further growth in terms of export orientation.

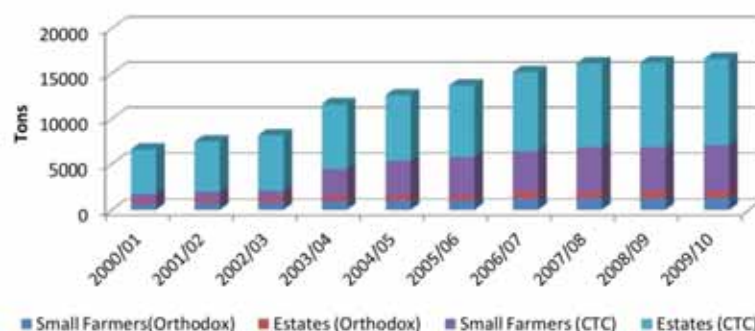


- Investment geared towards food and nutrition security and climate change adaptation also has potential in Nepal. GoN has made special efforts in these sectors and investment sensitive to these issues would add value to Government's efforts in these areas.

B. Policy, institutional and Legal Framework for backward linkages

- The Government of Nepal's 20 Year Agricultural Perspective Plan 1995/6-2014/15 (APP) identified irrigation, fertilizer, technology and infrastructure (which included roads and power) as four priority areas. Demand- led commercialization and coordinated production and marketing relationship was an important part of the policy. APP evaluations indicate that it was able to meet its target in rural infrastructure development especially in rural road network expansion.

- The newly introduced Irrigation Policy, 2013 focuses on ensuring year-round irrigation through Surface Water Irrigation, Ground Water Irrigation, irrigation based on new technologies, and expansion of Lift irrigation while encouraging effective participation of local groups. The policy document has also placed focus on implementation through Irrigation Management Information System, a quality circle of experts in the irrigation department to evaluate the quality of implementation of the policy, strengthening development feedback etc.



- The Seed Sector Development Strategy has been introduced in the form of Seed Vision (2013-25), which aims at: increasing crop productivity, raising income and generating employment through self-sufficiency, import substitution and export promotion of quality seeds. It endorses the concept of seed value chain including inputs and outputs of the seed chain components: variety development and maintenance, seed multiplication, seed processing and conditioning, seed marketing and seed use.
- The policies that overlook the seed regulatory measures are Seed Act 1988, Seed Policy 1999, Seed Regulation 2013 and National Seed Vision 2013-2025. As per the provision of the Seed Policy 1999, private sector has also been involved in seed production, processing, testing as well as import and export of seed in the country.
- The Government of Nepal developed the National Agriculture Sector Development Priority (NASDP) 2010-11 to 2014/15 as part of its effort to improve planning and implementation capacity for food and nutrition security. The government, as per the NASDP framework, tries to identify priority areas in agriculture sector, mobilize tool for identified project through recognition of stakeholders' comparative advantage.
- Agro-mechanization policy has been drafted and the final draft is in discussion at the moment. The working procedure for the policy has already been formulated as well. This policy envisions systematic agriculture mechanization and provides incentives for mechanization.



- National Agriculture Policy formulated in 2004 aimed to develop large production pockets, such that the products as well as their qualities would match the demands of the market. It also focused on systematization and strengthening of agriculture and livestock quarantine services to maintain the supply and credibility in the local and external markets. Most importantly, the policy decided to formulate a separate agricultural industry development policy in order to interlink agricultural research, agricultural production, agricultural processing industries, internal and external export markets and attract external investments in accordance with the priorities of the agriculture sector. The policy encouraged private sector to operate suitable farms/centers through a contract/lease agreement.
- Agribusiness Promotion Policy in 2006 emphasized on PPP for agricultural produce markets by encouraging organic production, establishment of agro-product export areas and business service centers. One-village-one-product has been a product of the policy. Recently, one district one product program and many bilateral and multilateral funded projects have also emerged which have elements of technical and financial supports for promotion of commercialization of agriculture.

Lessons from Nepal's successes in backward linkages:

The orthodox tea sector is a success story not only in terms of being one of the major export items from Nepal but also for its ability to reach out to more than 8000 farmers with small land holdings and consolidating their production on a commercial scale.

The organic farming sector with its recent growth rate also provides opportunities for further investment and provides a lesson on niche market identification and adaptation.

The poultry sector with an average growth rate of nearly 20 percent also provides valuable lesson in trading in domestic markets with integrated understanding of the local market and the supply chain.

Dairy is another sector in Nepal that has succeeded in not only attracting private sector investment but also managed to strengthen backward linkages to cater to the domestic market.

All these high value commodities rely on private extension services and provide valuable lessons for attracting further private sector investment in the agriculture produce market.

Source: MoAD, 2012.

- The Agriculture Development Strategy (ADS) which in final draft and discussion phase, provides a vision for growth in output, land and labor productivity and focuses on four strategic pillars—governance, productivity, profitable commercialization and competitiveness—for agriculture-led growth.

In addition to these major policy initiatives, GoN has also introduced several incentive schemes and programs to promote investment in the agriculture input sector in the last few years which include incentives for mechanization of agriculture, use of organic fertilizers and bio-pesticides, opening up agro-enterprises especially targeted to young people, land ceiling waiver for agro-enterprises and provision of special soft loans for agriculture through Nepal Rastra Bank (NRB) directives.

The institutional mechanism for deliverance of these policies and acts is led by Ministry of Agriculture Development (MoAD). MoAD works in coordination with other line ministries and several specialized government and non-government agencies such as AICL, NSB as well as development partners such as USAID, EU, DANIDA, SDC, DFID, ADB, WB and JICA among others.

C. Discussion agenda on furthering investment in Backward linkages in nepal

- Although the National Seed Vision 2013-2025 provides a larger framework, it is yet to be realized in terms of concrete policy framework and regulatory reforms. In order to promote an environment whereby private sector can contribute to seed production and distribution as envisioned by Seed Vision 2025, it is important to initiate a discussion on the strategies and respective responsi-



bilities of several government agencies as well as the private sector. The major task ahead lies in aligning these policy initiatives with actual programs and regulatory framework provisioned for in the annual budgetary process.

- Fertilizer remains a critical input to the process of farming and there is a lot of potential for growth in this sector. Owing to increasing demand for fertilizer, a potential solution to supply side constraints needs to be discussed. There has been private sector interest in fertilizer supply. However, past experience of having private sector involved in the process requires careful scrutiny to identify the challenges and build on a new strategy from lessons that can be learned from the past. One approach to increasing private sector involvement and improving AICL's efficiency in fertilizer distribution is to reformulate the existing subsidy program through a voucher system approach. These vouchers providing subsidy directly to the farmers can then be redeemed with any licensed fertilizer supplier and this could provide space for private sector involvement in fertilizer supply and production in Nepal.
- Outward migration of the male population has changed the structure of farm ownership and farm labor. Over the last decade, number of women farmers has increased. This has several implications extending from land ownership issues to appropriate technology to the approach to agricultural financing. In order to increase private sector investment, it is imperative to discuss policy implications of this changed farm demography on kind of investment that will come into agriculture.
- Even though land use policy has been brought about, the availability of land and the space of implementation of land use policy is questionable in the Nepali context. Therefore, land management is an issue that needs a serious discourse to encourage further investment on a commercial scale. Leasing of public land and contract farming are two possible alternatives that need to be brought into further discourse in land management.
- Rural areas are constrained with limited access to finance and high interest rates. Cooperative and micro credit institutions have emerged in the villages, especially in the Terai belt, but information about projects regarding cooperative farming for intensification and commercialization with needed mechanization seems to have not reached many farmers.
- Micro Finance Institutions record demonstrates that there has been credit flow into the rural areas. However, whether agricultural loans are being used for agricultural purpose is a questionable issue. Therefore, better discourse needs to take place to ensure access to finance to investors who actually invest in agriculture sector instead of diverting the loan to personal use.
- Availability of spare part is a huge concern as Nepal imports its tractor, power tiller and other farm machinery and this is due to the weak financial status of both dealers and traders to stock necessary spare parts. Thus, procurement time is very lengthy plus the cost is reported to be high. Other farm machinery needed for tilling, harvesting and irrigation have shown successful implementation which is provided through development projects, government projects and some private companies. Investment in mechanization can improve if additional incentives in the machinery can be provided.
- Small land size holding hinders farmers from purchasing all the farm machinery for tilling to harvesting on their own. In order to mitigate this gap, indigenous innovations are already taking place with many farmers with spare capital purchasing the machinery and providing it on rent to the rest of the village or nearby



localities. Since this is being done informally by the farmers, creation of provision for custom hiring enterprise with longer operation would benefit agricultural productivity as well as for disseminating information regarding mechanization. Furthermore, there is a need of an institution that oversees technological testing and quality control for locally manufactured and imported farm machinery in Nepal. Recently, efforts have been made by MoAD to draft new Agriculture-mechanization policy.

- Research in Nepal has been limited to conventional nature. It is natural that the public sector research has been focused more on food and nutrition security. However, research on commercial viability has not been initiated. In order to improve private sector investment in agriculture, one crucial area of public sector investment is perhaps opening the way with appropriate research.
- Human resource capacity of public officials and extension services are constrained and cannot meet all the demand given the limited capacity. Therefore, focus has to be on aligning curriculum of both formal education and training into meeting the demands of the market. This kind of human resource capacity would be conducive to increasing private sector investment.
- Coordination between regulatory bodies is yet another issue that needs further discussion. A case in point is that of NTFP. It is unclear in terms of policy direction on whether NTFP falls within the domain of MoAD or MoFSC. These kind of issues along with coordination between Ministry of Industry, Ministry of Commerce and Supplies to ease up private sector investment is an urgent matter.

SECTION III: FORWARD LINKAGES

Value addition

Most of the agro-based industries in Nepal are just emerging in terms of value addition, which involve processing, preserving and packaging of agro products. Majority of the agriculture production units are very small with poor investment capacities and small production volume. Therefore, production costs become high which makes Nepali agriculture less attractive for the development of processing industries. Much of the post-harvest losses have been a result of lack of adequate value addition, among other major reasons. Lack of value addition can be seen from the example of pashmina where the value chain is not connected. Wool, which is produced in a scattered manner in the mountains, is sold into Tibet without primary processing, which then go through simple processes such as removal of coarse hair, washing and bulk packing and is sold back in Nepal at a higher price (ADB, 2013). Therefore, institutional development of agriculture producers is one of the crucial aspects in strengthening the linkages between agriculture and industries (NPC, 2004).

A. Existing Scenario

Value addition in agricultural products through the means of processing and packaging can be looked upon in the following categories: processing of cereals like rice and wheat; processing of animal products (especially dairy and meat); sugar for the production of confectionary items ; and, processing of poultry feed.

In case of cereals, total production is insufficient to meet the domestic demand and Nepal has been a net importer of cereals for most of the past three decades. A reversal of the scenario is deemed unlikely in the near foreseeable future. Therefore, value addition in cereals like rice and wheat might not seem as lucrative as other products where Nepal has a comparative advantage. These include: processing of orthodox tea, dairy



products, meat products, sugar, large cardamom, fruits, dry ginger, vegetable seed and poultry feed to name a major few.

During the APP implementation period, there were 774 dairy processing plants established in Nepal besides the government processing plants (DLS 2010). There is much more potential for the dairy sector to expand and with growing competition, processing and packaging naturally need to be scaled up. In addition, private sector cheese factories are producing over 400 tons of cheese each year (Ibid.) Similarly, private sector investment in the poultry sector is about Rs 21 billion (ADB, 2013). The orthodox tea sector is now dominated by the private sector, both in primary production and in processing; the success story here has been the ability of the "bought leaf" factories to reach out to the 8,000 growers with advice on productivity and quality, resulting in significant increases in exports (MOAD, 2012). Similarly, meat processing facilities, ginger processing facilities and processing of poultry feed have also emerged in the recent times.

There have been several efforts in recent years in value addition using the value chain approach. High Value Agriculture Project (HVAP) targeting competitive matching grant is conducted by MoAD in partnership with IFAD. SNV and AEC/FNCCI are implementing partners of the project which was initiated in 2010 which works in development of 7 value chains in 7 hill and mountain districts of mid and far west regions. Raising Income of Small and Medium Farmers Project (RISMFP) aimed at helping small and medium farmers build sustainable business models is conducted by MoAD in partnership with ADB. AEC/FNCCI and Nepal Rastra Bank (NRB) are implementing partners of the project initiated in 2011. High Mountain Agribusiness and Livelihood Improvement Project (HIMALI) is a partnership between ADB and MoAD initiated in 2012 to help develop business models of agro products in the Himali region. Kisan ko Lagi Unnat Biu Bijan Karyakram (KUBBK) is a partnership between MoAD, IFAD, AEC/FNCCI and Heifer International that started in 2013. The project aims at commercialization of seed and goat rearing in 6 districts of western and mid-western regions. Project for Agriculture Commercialization and Trade (PACT) is a partnership between MoAD and the World Bank initiated in 2009 geared towards strengthening value chain by building linkages and ensuring quality standards.

Opportunities for private sector participation

The investment in agribusiness has increased after 2006 due to more stable environment. For instance, large investment of NRs. 2 billion has been made in Sunsari-Morang corridor in dairy processing, soy processing, rice milling, biscuit manufacture, plywood, and poultry sector between April 2010 and October 2011 (MoF, 2012). Compared to investment in other sectors like service sector/manufacturing, investment in agro industry is relatively low.

The scope for processed products is broad and seems to be growing with each passing year in both internal as well as Indian markets.

- Various commodities such as orthodox tea, coffee, potato, oil, maize and other cereals, fruits, vegetables and spices have higher potential for processing and value addition.
- Few crops like tobacco products, animal oils and fats, malt liquors and malt are processed and packaged and have high value addition.
- The investment in various agro-industries such as pashmina, handicrafts, pulses, jute goods and vegetables ghee is increasing slowly and gradually. It has also helped to increase export market concentration in India, United States of America and Europe.
- The establishment of collection centers in the vicinity of production centers is very essential for marketing



commercial production of agricultural products. Additionally, organized markets such as Haat Bazar and well-equipped wholesale and seasonal markets under the management of private cooperatives play a crucial role in creating forward linkages (NAP, 2004).

- Similarly, establishment of pack houses and cold chains and large scale farming through promotion of contract/lease farming practices in high value and exportable crops are some other value chain areas that have potential.
- There is also potential to increase value adding in Nepal in improving quality, safety and labeling certification to standards for safety, quality, fair trade and organic branding; and processing and product development (for example the vast majority of spices, pashmina, hides and skins, and MAPs are exported in raw form and most value adding is done in India and China) (ADB, 2013).

B. Policy, Institutional and Legal Framework

- National Agriculture Policy formulated in 2004 aimed to develop large production pockets, such that the products as well as their qualities would match the demands of the market. It also focused on systematization and strengthening of agriculture and livestock quarantine services to maintain the supply and credibility in the local and external markets. Most importantly, the policy decided to formulate a separate agricultural industry development policy in order to interlink agricultural research, agricultural production, agricultural processing industries, internal and external export markets and attract external investments in accordance with the priorities of the agriculture sector. The policy encouraged private sector to operate suitable farms/centers through a contract/lease agreement.
- Agribusiness Promotion Policy in 2006 emphasized on PPP for agricultural produce markets by encouraging organic production, establishment of agro-product export areas and business service centers. One-village-one-product has been a product of the policy. Recently, one district one product program and many bilateral and multilateral funded projects have also emerged which have elements of technical and financial supports for promotion of commercialization of agriculture.
- The institutional framework in the agricultural produce market includes line agencies such as MoAD, Ministry of Forest and Soil Conservation, Ministry of Commerce and Supplies at the forefront supported by various departments and independent government and semi-governmental agencies. These institutions jointly are responsible for coordination between themselves to implement the various provisions put forward by sectoral and macro policies.
- The Industrial Policy 2010 has prioritized agriculture and agro-forestry industries for investment, and provides additional incentives and facilities to these industries.
- A number of policy and legal reform measures have been taken by the Ministry of Agriculture Development, Ministry of Industry, Ministry of Commerce and Supplies and Nepal Rastra Bank, along with planned policy efforts from the government in the past. The planned policy efforts include drafting of the Agriculture Business Promotion Bill, Agriculture Mechanization Policy, Agriculture Market Management Bill, etc. Similarly, the Agro Enterprise Center housed at the apex body of the private sector, FNCCI, has been providing policy recommendations to the government. The formation of Policy Division within MOAD, the existence of agriculture business promotion division and the public-private joint committee for recommendations for policy



/regulatory reforms has also provided impetus in reforming policy and legal framework.

- Similarly sectoral policies on poultry, tea, cooperatives, floriculture, livestock, etc. have tried to draw focus on the development of those specific areas.
- Recent efforts by GoN in terms of value chain strengthening include introducing insurance schemes for crops and livestock (2013) and export refinancing (2013). In addition to these new schemes, the agriculture business promotion bill has been focused towards institutionalizing contract farming and relieving on of the primary constraints facing agriculture commercialization in recent times. GoN has also been actively involved in building infrastructure such as cold storage and processing units to promote value chain and access to markets.
- The institutional mechanisms for the implementation of policies associated with value chain are led by MoAD. However, value chain policy requires close coordination between different line agencies specifically Ministry of Industry, Ministry of Commerce and Supplies and the Central Bank as well as the Ministry of Finance. MoAD has been actively leading coordinating efforts along these lines and also working with various development
- partners and local agencies as mentioned above to help implement the policies framed for strengthening value chain in agriculture sector.
- The 2011 White paper on Agriculture had mentioned tax exemption for 15 years in Himali districts for agriculture, vegetable, fruits, and processing industries and establishment of herb processing enterprises, first in the mid-western development region (Nepalgunj) on a pilot basis, and replicate to other development regions.
- The 1996 Food Act and other consumer protection policies are of concern to the food processing industry to understand the standards of food products to sell.
- Sub-sectoral policies in tea, dairy, poultry and other products are also of significance in their efforts to promote private sector's participation in production, processing and trade of those products.

C. Discussion agenda to further investment in value Addition

- At present scenario, markets are increasingly open toward international tastes. Therefore, the level of quality, packaging, safety, and even processing should be carried out in socially and environmentally friendly manner. The chains of food production, distribution and marketing are changing with rapid change in communication, vertical business structures, and increase in supermarkets. As a result, large percentage of the consumer price of food is formed in the post-farm value chain.
- Agro based industries mostly depend on imported materials for processing and packaging, which is costly while importing in small scale. In addition to this, for the packaging and processing of agro-products, electricity shortages are causing the prices to skyrocket with the use of diesel generators. As a result, the cost of production is higher, which makes Nepalese products non – competitive in price.
- A successful transition from farm to market requires rigorous quality control measures. Given the limited capacity in Nepal for certification and quality control, increasing investment in this aspect of value chain is also an important agenda for further discussion.

**Lessons for Nepal from Value Chain development practices of the past:**

The partnership of GoN with ADB in the Commercial Agriculture Development Project (CADP) worked with grass roots level organizations establishing crucial linkages that facilitated the process of farm to market thereby creating sustainable value chain. Success of CADP in the Easter Region of Nepal provides valuable lesson of capacitating local level and grass root level organizations (especially farmers' cooperatives) to develop a sustainable value chain system.

Similarly, public – private partnership in the form of 'One Village One Product' – a joint initiative of FNCCI and GoN is another example of success in value chain development. The success of this initiative points to specialization and achieving economies of scale to support value chain sustainability.

Competitive grants program however require a grant size that supports wider public benefit. This has been a learning experience from projects like CAA and PACT.

There is a considerable amount of private sector involvement in the extension services that sustains the value chain in rural areas through entrepreneurial JTAs.

Source: ADB, 2013a; MoAD, 2012.

- The 1996 Food Act (and similar acts such as the Black Marketeering Act and the Consumer Protection Act) does not provide the authorities with sufficient tools to create an environment whereby food safety and quality measures are an integral part of the food processing industry, both for local as well as export markets. The standards of "adulterated and unsafe foodstuffs" are insufficiently defined in the relevant Acts and are not based on internationally adopted SPS and Codex standards. The Food Act also takes reactive rather than a pro-active approach, one of imposing sanctions for violations of the Act rather than creating an enabling environment for a preventive approach. As such the Food Act is not conducive to the promotion of FSQ standards for trade and export in agricultural products. (ADB, 2013)
- Research and extension are equally essential services associated with value addition and value chain development. Research has been led by the public sector in Nepal and better strategies are required to increase involvement of private sector. Since research is a long term investment, this is an area where a public private partnership can yield better results. In terms of extension, an indigenous network through JTAs has already been formed at the local level. Private sector involvement on a larger scale therefore can capitalize on this network while strengthening it with further capacity building activities.
- Value addition and chain development also requires investment in facilities such as cold storage, chiller vans for transportation, other customized vehicles for the transportation of livestock, small market places, etc. This is an area that can potentially attract the private sector and development partners in the form of public private partnership.

While the policy and regulatory framework have been prepared in the Nepali context, there is still a gap in implementation capacity. Capacitating implementing agencies is another area that requires further discussion.

AGRICULTURAL TRADE (DOMESTIC AND EXPORT ORIENTED)

Major agricultural products of Nepal include cereal crops like paddy, wheat, maize and millet, cash crops like oilseeds, potato, sugarcane and pulses like lentil, chickpea, pigeon pea, black gram and grass pea. Mandarin oranges, sweet orange, apple, pear, walnut, mango, banana are Nepal's major fruits whereas chili, turmeric powder, cardamom, garlic and ginger are Nepal's major spice products. With regards to livestock products, Nepal mainly produces milk, meat, egg and wool. Fishery is another major agricultural product of Nepal.

Existing Scenario

Although majority of the population is engaged in agriculture, Nepal's domestic market has not yet been catered fully. In the past eleven months, Nepal's agricultural import was led by palm oil, chemical fertilizers and soybean oil (NRB, 2013). Similarly, there is a gap between the demand and supply of milk in Nepal.

Livestock sector also accounts for one-third of the agricultural GDP of Nepal. Similarly, in light of the growing



demand of poultry and dairy within the domestic market, there is potential for investment in these sectors. According to the Trade and Export Promotion Center, in the past eleven months of FY 2013/14, lentils, tea, cardamom, ginger, beetle nut and medicinal herbs led the agriculture export (TEPC, 2013).

Around 87 percent of the total agricultural products of Nepal are used for domestic consumption whereas 13 percent of the products are traded in markets (The World Bank Group, 2011). Besides the domestic trading, agricultural products also comprise the major export items of Nepal. Cardamom, lentils and mixture of juices are the top three agricultural products that Nepal exports. Share of cardamom export has gradually increased over 2011 to 2013 while export of lentils has declined in 2013. Black Tea is another product that has a large share of export market. Similarly, products like Ginger and frozen orange juice also demonstrate a steady climb in export shares (TEPC, 2013).

The government investment in agriculture sector in Nepal has been increasing throughout the last decade (from NRs.2.4 billion out of NRs.96.11 billion in 2001/02 or 2.5 percent of national budget to NRs.12.43 billion out of NRs.384 billion in 2010/11 or 3.23 percent of national budget). Financial and technical support of foreign donor agencies has also been one of the major modalities of investment in Nepalese agriculture sector. With the formation of Agro Promotion Enterprise in 1992, a tripartite partnership between the government, donor and FNCCI was also established in order to foster high value, cash crop based, market led, export oriented and private sector driven agriculture in Nepal. Several efforts have been made in encouraging high value agriculture in Nepal where MoAD has implemented several projects such as the High Value Agriculture Project (HVAP), Raising Income of Small and Medium Farmers Project (RISMFP), High Mountain Agribusiness and Livelihood Improvement Project (HIMALI), Kisan ko Lagi Unnat Biu Bijan Karyakram (KUBBK), etc. with local and international partners.

Opportunities for private sector

- According to the Economic Survey 2012/13, potato leads the cash crop production while fruits (especially bananas, oranges and mangoes) and vegetable production has also growth over a period of time. Similarly, perennial crops like tea and coffee are gaining popularity in the international market.
- Sugarcane, jute and honey are other products that have demonstrated potential for further investment in Nepal.
- Non Timber Forest Product (NTFP) is another potential area of investment in Nepal. Out of the 238 medicinal plants that are in active use, 100 varieties are traded in Nepal. The export market for these products has slowly grown. However, these products fetch a higher price once processed and therefore, over the years, GoN has focused its efforts in developing processing units for medicinal herbs.
- Community Forestry is a success story of Nepal actively involved in NTFP production and trading. The full potential of NTFPs in Nepal is yet to be realized and this offers several opportunities for private sector investment.
- Few local indigenous products have the potential to be niche market products after a certain amount of processing – for e.g. beans from high hills, Mustang beans, 'ghee' or butter from Nepal's native Chiuri Tree (Butter Tree), paper products made out of Lokta tree, honey, etc.



- Agro products with competitive advantage as per Nepal Trade Integration Strategy, 2010 are cardamom, lentils, tea, medicinal herbs, ginger, noodles, pasta and like, and essential oils. These products do have international market but trade and transit routes decide the nature of export diversification.

Policy, Institutional and Legal Framework

- Nepal Trade Integration Strategy (NTIS) 2010 develops strategies for export expansion especially of high value agriculture products. It identifies nineteen products with potential for export expansion leading to a broad based inclusive growth out of which sixteen are agricultural products.
- A series of agreements have been signed that include the Nepal-India trade treaty, South Asia Free Trade Agreement (SAFTA), and the World Trade Organization (WTO) which opens up export market for Nepali agro products and also governs the tariff rates for import of agro products. WTO provisions and bilateral agreements with India also govern the quality standards such as Sanitary and Phyto-Sanitary (SPS) provisions of the WTO.
- The Treaty of Trade and Agreement of Cooperation to Control Unauthorized Trade signed in October 2009 stipulates that both parties shall grant recognition to the Sanitary and Phytosanitary certificates (including health certificates) issued by the competent authority of the exporting country, based on assessment of their capabilities, in the area of food and agriculture product (including primary, semi processed and processed), and shall allow entry of these products into their markets on the basis of these certificates subject to meeting the mandatory requirement of the importing country. Also, it places the primary products of agriculture, horticulture, floriculture and forest produce as eligible for preferential treatment.
- Herbs and NTFP Development Policy 2004 aims to increase NTFP export in Nepal by focusing on regeneration, reproduction and conservation of NTFP sites. It envisions private sector participation in the process.

Lessons on agricultural trade in Nepal from past experiences: :

The orthodox tea sector is a success story not only in terms of being one of the major export items from Nepal but also for its ability to reach out to more than 8000 farmers with small land holdings and consolidating their production on a commercial scale.

The organic farming sector with its recent growth rate also provides opportunities for further investment and provides a lesson on niche market identification and adaptation.

The poultry sector with an average growth rate of nearly 20 percent also provides valuable lesson in trading in domestic markets with integrated understanding of the local market and the supply chain.

Dairy is another sector in Nepal that has succeeded in not only attracting private sector investment but also managed to strengthen backward linkages to cater to the domestic market.

All these high value commodities rely on private extension services and provide valuable lessons for attracting further private sector investment in the agriculture produce market.

Source: MoAD, 2012.



Discussion Agenda to increase investment in Agricultural trade

- Most Nepali exports still exit the region via the Kolkata port, despite high costs and unreliable services owing to port congestion. The economics of trade is such that Nepal's specialized exports can remain competitive only if the country can keep up with its rivals by securing faster and more reliable transit for its products.
- Insurance of perennial crops such as tea and coffee is yet to be developed in Nepal. However, these are crops that require larger and longer term investment and thus demand some form of insurance.
- Nepalese agriculture is mainly subsistence oriented and is gradually picking up in terms of agro-business. In this context, large scale investments in agriculture are yet to be realized. Lack of national branding of Nepalese agricultural products in the international arena has resulted in a very weak presence of Nepalese products in international markets. There is a need to register collective brands for Nepalese agricultural products. For instance, Nepalese coffee has started showing international presence with the collective brand of Nepal Coffee. However, many other major Nepalese agricultural products like tea and cardamom have not been marketed/ branded in the international arena, despite their contribution to Nepalese exports.
- Access to market information is a major hurdle to boosting export of Nepalese agricultural produces. With lack of access to information technology (internet, e-mail), most producers have limited information on available international market opportunities. This has also created hurdle for farmers in creating linkages with the traders, thus forcing them to sell their products at low prices.
- Lately, the trend of organic certification by agro producers of products like fruits, honey, coffee, tea and vegetables (which are also major exports of Nepal) has been increasing. Organic Certification Nepal (OCN), which is affiliated to Certification Alliance(Bangkok), issues third party certification in the domestic market. Although this kind of certification helps promote sales, many agro producers are still not applying for the certificates due to high costs associated with the certification process. Getting farm products certified in Nepal is a long and arduous task, taking as much as a year or more. Exploring international options is also costly as well as equally time-consuming for Nepalese farmers.
- Nepal has plant quarantine services throughout the major exit points along the Indian border that provide quarantine certificates to the exporters. However, the certification authorities are not well equipped and their presence itself is not as high as required by the market. In addition to this, the importing countries have their own set of regulatory requirements relating to cleanliness, pesticides, residuals and microbial load. Standardization and grading in these terms are major pre-requisites for improved marketing.
- Differential tariff and non-tariff barriers associated with trade create opportunities for informal trade. In order to further private sector investment, formal channels for trade need to clearly be identified and the process should be simplified such that transaction cost of doing business does not rise. This is another area that requires further discussion.
- In order to harness the potential provided by modern technological advancement, Nepal needs to update its regulatory framework to protect intellectual property rights and ease out the barriers to foreign investment. This is an area that requires further deliberations in the policy discourse of Nepal.



SECTION IV: WAY FORWARD

Nepal has comparative advantages in export markets in resource and labor-intensive agriculture products such as dried vegetables, coffee, tea, vegetable and roots, ginger, and cardamom. Similarly, there is good potential for import replacement in vegetables, fruit, beverages, dairy and meat. In order to realize these potentials, following are some recommendations aimed at easing investment challenges:

To increase investment in the input market

- A discourse on land fragmentation and land use has become an urgent need. While land reforms are ongoing, focus must be on immediate measures that can help alleviate the problem of fragmentation and proper management. In this scenario, Government of Nepal has worked on two different arrangements – that of Land Use Policy and Contract Farming Act. These two provisions must be reviewed and enacted with appropriate mechanisms. Immediate relief requires formulation of necessary directives and regulations to enact the provisions made in these policies and acts.
- Labor migration is an ongoing issue in Nepal which contributes significantly to the decline in farm labor. GoN has shown a serious commitment to working on this issue through reforms in the overall economic environment as evidenced by its active participation in forums like Nepal Economic Summit. In order to alleviate immediate pressures on shortage of farm labors, an appropriate policy addressing this issue needs to be framed. Such a policy can provision additional incentive structures for farm work while highlighting the work of successful agro-entrepreneurs. This kind of recognition by the GoN of successful agro entrepreneurs (especially returnees from foreign migration) can act as a disincentive to further migration.
- Appropriate technology is a key ingredient to improving overall productivity. In order to promote investment in agricultural technology, GoN has provisioned several incentive schemes under its existing policies and programs. These provisions need to be integrated and highlighted further through marketing and awareness raising campaigns. Similarly, GoN can concentrate its effort on tariff rationalization for technological inputs related to agriculture sector.
- Seed and fertilizers are two different key inputs that can set the pace of agriculture development. GoN has been using subsidies to ensure provisioning of both these inputs. It has also formulated Seed Vision which outlines specific strategies for developing a well-rounded seed market in Nepal. In this respect, seed policy and institutional mechanisms to implement the seed policy need to be formulated and implemented. Similarly, in case of fertilizer, a piloting of voucher system to administer subsidies and opening up the fertilizer market to private sector participation can be a change in strategic direction that needs to be tested through pilot programs in specific geographic regions. Druilhe & Barreiro-Hurlé (2012) mention some evidence in their working paper on “Fertilizer subsidies in sub-Saharan Africa”, which suggests that “such programmes have been effective in raising fertilizer use, average yields and agricultural production but that their success is highly dependent on implementation”.



To increase investment in agro-product market

- Commodities markets provide potential of managing risk and shortages that the market faces from time to time. For this, GoN needs a better regulatory policy framework that facilitates agricultural commodities trade. There are links for commodity trading with Indian markets and via India to the world market as well.
- New ideas using information and communication technologies to link farmers to markets require further investment. The ICT penetration of Nepal has increased over the years and mobile phones can provide an accessible mechanism for linking farmers to markets. Certain models are in practice in the private sector as well as civil society. There are lessons that GoN can learn from existing practices and scale up successful models of use of ICT to improve market information and strengthen linkages. Agricultural cooperatives are an instrumental mechanism that can facilitate this process. Similarly, creation of provision for custom hiring enterprise with longer operation would benefit agricultural productivity as well as disseminate information regarding mechanization and benefit farmers.

To increase investment in value Addition

- Value addition in agro products requires a concentrated strategy that not only addresses policy reform but also capacity building of existing linkages. GoN has worked with several stakeholders in formulating an integrated agriculture development strategy. The strategy is still in review phase. The action plan recommended in this strategy will address issues such as capacity building and providing access to finance while ensuring policy reform. This is one area that development aid can be properly channelized to reap maximum benefits.
- Value addition requires heavy investment in infrastructural facilities like access to roads and storage facilities. GoN has been expanding feeder roads and agricultural roads to rural areas through its annual fiscal spending. There is an active interest from the private sector in storage development. This is an area where public private partnership model can be used.
- Quality standardization and packaging are two important aspects in value addition. Therefore, the focus should be on improving quality, safety and labeling up to Codex Alimentarius standard; providing certification to standards for safety, quality, fair trade and organic branding. Nepal also needs to develop appropriate quality infrastructures for testing and certifications of agricultural products. The accreditation of the Nepalese food testing laboratories is equally important to address the market entry barriers. Also for the domestic markets, based on the food act and consumer protection policies, the quality measures should be concise and should be defined very clearly.
- Scaling up of existing agro enterprises can foster agriculture development. One model of doing this is through cooperatives such as the case of Amul Cooperative in India. Even in the private model of scaling up enterprises, there are certain facilitating roles that the GoN can play including increasing soft loans accessibility to existing enterprises with a proven track record and providing linkages with venture capital and grant funds with the Government playing the role of a guarantor to selected enterprises.
- Tax and duty exemptions in processing, packaging and other required equipment for processing, packaging and production can encourage investments in processing.



To increase agriculture trade

- Increase in cross-border trade will require Nepal to have an adequate capacity and network of agreements in place with major trading partners for food safety and quality standards, phytosanitary and quarantine, double tax agreements, transit, and harmonized trade and commerce legislation (e.g. anti-dumping, labeling, trade mark protection). It will also require Nepal's agri-food industries to become competitive with more countries.
- Easing the process of export through transit points such as Kolkata port requires negotiations from the high level officials of the government.
- Insurance policy to address specific high value crops need to be brought about to increase investment in perennial crops such as tea and coffee, which require larger and longer term investment. Creating provisions for Contract farming can also be one way to address the issues of this nature.
- In products which are already considered of comparative advantage to Nepal's trade, effort now has to be on branding and registering those brands. For instance, Nepalese coffee has started showing international presence with the collective brand of Nepal Coffee. However, many other major Nepalese agricultural products like tea and cardamom have not been marketed/ branded in the international arena, despite their contribution to Nepalese exports.

SECTION VI: CHANGING THE TIDES OF REFORM

Through enhanced participation of private sector, cooperative and government as three pillars of development, there has been good policy environment for encouraging investment in the agriculture sector. The government realizes that agriculture development will cast positive effect in alleviation of poverty and increase in employment. GoN has worked with an integrated policy approach in agriculture development in the past with Agriculture Perspective Plan. Since there have been reviews on the achievements and mechanisms of APP, there are many identified lessons on strategies adopted by GoN. Given this background, the GoN with the leadership of Ministry of Agricultural Development has recently undertaken a major task of preparing an integrated Agriculture Development Strategy. ADS builds on existing challenges and lessons learned from the past and proposes several strategic interventions in the field of governance, productivity, commercialization, and competitiveness, and nutrition and food security. This is one step towards adapting to changed market conditions and taking an initiative to promote agricultural growth. Once the ADS has been adopted by GoN, development of agriculture sector in Nepal is expected to take place at a rapid pace. Above all, agriculture development in Nepal can happen through increasing both public and private investments. One of the pre-requisites for this is policy stability. This is where GoN has a crucial role to play.



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