

A REVIEW OF NEPAL'S FIRST CONFERENCE ON AGRICULTURE

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ABSTRACT

Nepal's first conference on agriculture was organised in 1958 (2015 BS) one year after the country's first five-year plan was initiated. This review is based on the proceedings of the conference published by the Department of Agriculture. It provides an insight into the process of institution building and a perspective on development of agriculture in the 1950s. The proceedings also discuss the challenges faced by this sector, when Nepal started on its path to modernisation.

CONCEPTUAL FRAMEWORK

Nepal's first conference on agriculture was held on 2 November 1958 (17th Kartik 2015 BS) and its subcommittee meetings continued on the 4th and 5th. The Ministry of Agriculture published the proceedings in Nepali as *Krisi Sammelanko Report, 2015*.

This report provides an account of agricultural development programmes, plans, and ongoing activities, as well as the challenges faced in modernising traditional farming methods, which were identified by the national experts forty years ago. The illustrative cover of the report reflects the conceptual framework of the policy makers. It shows a central circle labelled food (*khadyanna*), which is surrounded by an outer circle subdivided into six segments depicting irrigation, new settlements, rural development, multi-purpose agronomy, land reform and co-operative development. The illustration reflects the belief that food production is integrally linked with these six elements.

The leadership for the initiative seems to have come from the then Minister for Food, Agriculture, Canal and Forest, Bhupalman Singh Karki. In his inaugural address, which was broadcast live on Radio Nepal, the minister pointed out to the needs of and challenges for agricultural development. The growing population pressure, ecological imbalance, declining productive capacity of soil and increasing pressure on land were mentioned

as the root causes of problems resulting in the gradual decline of agricultural outputs and collapse of farming systems. The consequence is identified as the large-scale migration from Nepal to neighbouring countries. The minister expressed his concern by saying:

Those who are compelled to leave their birthplaces to seek livelihood outside their country spend the most valuable periods of their lives making other's homes prosperous. Once they are physically disabled, weak and disease-ridden, do they return to their homeland. In this condition, they can no longer work for themselves or the country. They remain hungry and thirsty. We have to solve these problems by adopting various measures to improve agricultural productivity.

Land reform is another issue highlighted in the report. Indicating to the conflict situations between the landlords and the tenants, the minister appeals to both groups to resolve their problems and to regard each other as 'members of a large family'. He requested them to develop a mutual understanding so that the government could provide them with the technical support and credit facilities needed to increase productivity.

This 152-page report consists of a preamble followed by five chapters. The preamble discusses the national agricultural context and also includes the speech of the Minister, which outlines the policy thrust of the government.

Chapter 1 presents the history of development of agriculture in Nepal, the agricultural organisations established between 1920 to 1959, as well as the programmes, achievements and problems faced during this period.

Chapter 2 introduces Nepal's climate, topography and geography as they relate to the agriculture sector. The divisions, Trans-Himalaya, Himalaya, Hill, Inner Tarai and Tarai regions, are based on altitude. The country's rivers are categorised into three types based on their origin: rivers that originate in the Himalayas, those beginning in the Mahabharat mountains and those starting in the Churia hills.

Chapter 3 outlines the challenges and the problems faced by agriculture including crop, livestock diseases as well as the growing food shortage in the country. Suggestions to overcome the problems are identified: launching an awareness campaign for the prevention of crop and livestock diseases, establishing seven vaccination centres and five check posts, applying scientific techniques to increase land productivity, and bringing additional land under cultivation.

Chapter 4 reviews the proposal for the agriculture development of the first five-year plan 1957-1962, which was already one year into implemen-

tation when the conference was held. The progress during that one-year period is also reviewed briefly.

Chapter 5 summarises the recommendations of the conference, which include restructuring of organisations, resource mobilisation, land reform measures, irrigation development, new settlement planning, rural development and co-operative approach to development.

CHALLENGES TO DEVELOPMENT

The report highlights the major challenges faced for the development of agriculture as identified during the conference. It mentions that, despite 95 percent of the population being engaged in agriculture, many of them have insufficient food supplies. The report indicates three reasons behind the growing food deficit: low productivity and the lack of transport as well as market facilities to distribute the surplus food to food deficit regions.

Two-thirds of the population lives in the mid-hills, where food deficit continues to rise.¹ A large number of land-less people and those displaced by natural disasters, declining productivity, lack of irrigation and conventional farming practice, lack of trained manpower and rapidly rising out-migration of able bodied manpower from the hills were the set of problems identified in the report.

Lack of statistical data related to agriculture was noted as the major hurdle for effective agricultural planning. Data required includes: the area under cultivation, its potential for expansion, irrigated area and different irrigation systems existing, types of crops and their production level, nature and types of soil, the volume of dairy products, land ownership status, and climatic and hydrological data.

The need for research on crops, fruits, and suitability of livestock in different ecological zones is another challenge mentioned. Emphasis was given to in-country research and study initiatives, since Nepal with its diverse climatic and geographical characteristics can not adopt agricultural and farm models of other regions. The necessity of gradually improving indigenous farming practices is underlined.

The protection of agro-products from disease and insects is as important as their production. Traditional methods of storage need improvement. Conducting scientific studies on improving locally used technologies and/or identifying their alternatives is identified as the other developmental challenge.

Successful implementation of the first five-year plan, which accorded development of agriculture a top priority, is reported to be a challenging task. The plan has vital components of development as education, health and transport facilities, promotion of industry, trade and commerce, and rural upliftment.

The development challenges faced by Nepal's agriculture identified by the conference were as follows:

- rapid increase in the numbers of landless farmers due to natural disasters, particularly the heavy flood of 1954 resulting in social and environmental chaos including illegal encroachment of forest, shifting cultivation and settlement of marginal land.
- unreliable irrigation resulting in the cultivation of a single crop a year, low productivity, out-migration of villagers and encroachment on forest and marginal land.
- lack of the finance and credit facility needed to promote private agricultural business.
- low awareness about modern techniques and methods among farmers.

The conference recognised that the current level of food production was inadequate for the growing population. For this reason, the conference focused on increasing production, which was marked as the main challenge and major objective of agriculture development. Increased food production was expected to fulfil domestic demands and to create a surplus for export. The proceedings highlights the fact that Nepal relied on imported food to overcome its deficit. The goal of agricultural development was to overcome these limitations.

The proceedings introduces the issue of food security as follows:

Nepal began to experience food shortage in 1920 AD. After the end of the First World War, the country faced such an acute shortage of salt that the then Prime Minister had to intervene to regulate its supply. The crisis was a lesson in ensuring that arrangements for providing food and other necessary goods are made in time. To transport salt and other edible materials a motorable road was built from Raxaul to Bhimphedi and a ropeway was constructed from Dhorsingh to Matatirtha. Both arrangements helped offset the food shortage for a while. However, Kathmandu again faced food shortage in 1934, when a major earthquake hit Nepal. For the first time in the history of the country, the Prime Minister appealed to the people for help. People in the Kathmandu valley as well as outside responded to his call; they provided enough support to avert a major crisis. The situation was expected to return to normal and the crisis was considered an aberration caused by the earthquake. Conditions did not improve, however. Food continued to be imported.

Nepal's development plan of the 1940s also aimed to create infrastructure and industrialise. The following paragraph epitomises the concept of self-sufficient industrial development policy defined by the conference.

It is necessary to establish industries to earn foreign currency. Export of industrial products helps earn hard currency. Foreign currency should not be used in the unproductive sectors. By establishing a network of electricity-powered ropeways to link the Tarai with the hills, the consumption of petroleum-based fuels can be minimised, which means that foreign currency will be saved. As an alternative source of energy, hydro electricity can supplant petrol and diesel. Wastes from locally made alcohol and from sugar factories can be used to produce 'power alcohol'. Mixing this alcohol with petrol can yield an alternative sources of energy. To develop the technology to produce power alcohol, further research is needed.

The proceedings reveals that development planners realised the importance of applying chemical fertiliser to increase food production, but they also emphasised caution for two reasons: chemical fertiliser may harm the soil base if used unwisely and it has to be imported. The production and promotion of traditionally used compost fertiliser is recognised as a better alternative until chemical fertiliser is produced in the country.²

The report takes a broad perspective on the development of agriculture, and considers it as the entry point for achieving total development. The aforementioned problems were regarded as the constraints that impeded the development and their resolution seen as essential. Strategies for their resolution are discussed in different sections of the proceedings. In the 1950s these responsibilities were entrusted to the Ministry of Agriculture.

ORGANISATIONAL EVOLUTION

One important aspect of the report is its documentation of the organisational changes within HMG in the agriculture as well as the irrigation sub-sectors. The establishment of new sections in agriculture was a major activity in the 1940s and 1950s. In 1937, a formal organisation – Agriculture Council (AC) – was established with the objectives of bringing about improvement in farming techniques and implementing plans necessary for the development of agriculture. A department to supervise the canal section was also established under the AC.

The AC had two tiers: a policy board and an office, which was called Agriculture Council Office (ACO). The board members were government

officials and made decisions on agricultural related activities. The secretary of the board was the chief of the ACO and was responsible for implementing the decisions taken by the board. The establishment of the ACO was the first step in the agriculture sector accommodating advisors and technical staff.

Emphasis was placed on bringing more area under cultivation in order to increase food production. This responsibility was given to the ACO, but to expand the area under cultivation, forest had to be cleared. This in turn necessitated co-ordination between the agriculture and forest sectors. These two offices, however, worked independently with little co-ordination. In fact, prior to the formation of the Agriculture Council, the agricultural activities were undertaken in isolation. The need to irrigate land brought under cultivation was also recognised.

Problems remained and progress was slow because the ACO lacked trained manpower. The proceedings discuss the problem and response as follows:

The Indian government sent a dairy development advisor to assist in livestock development. A modern dairy was established in Balaju. To improve the government run farms, a Livestock Improvement Section was constituted under the newly established Bureau of Livestock Development. In order to expand agriculture in Kathmandu and in the region within 16 miles of the capital, 40,000 *ropanis* of land were distributed. For this purpose, agriculture and forest technicians carried out a land survey. The construction of the Sirsia Canal in Bara and the Bijayapur Dam in Pokhara was also begun. The National Planning Committee drafted both a 5 and 15 year agriculture development plan for the country. The Food and Agriculture Organisation (FAO) sent its team to Kathmandu.

All these activities occurred before 1951 (2007 BS). Following the advent of the democratic political system, the ACO merged with the Department of Agriculture. In 1951 the government of Nepal and the United States of America signed an agreement to initiate technical assistance to Nepal. The United States Agency for International Development (USAID) subsequently began its assistance programme. Within the Agriculture Department, new sections were established. At the same time the scope of activities of the department was also expanded. In 1952, a new agricultural plan began to provide farmers with information on improved seeds, chemical fertilisers, and improved agricultural tools.

Staff members were trained to implement the plan, thereby overcoming the initial shortages. The following paragraph highlights the use of manpower available.

From 1940, Nepalis who had gone abroad for training in agriculture started to return. New sections in their respective fields of specialisation were established to employ them or they replaced the non-technical staff employed by the council. The veterinary hospital at Tripureswor was upgraded and supplied with modern equipment. Agriculture Development units established in Chhauni, Balaju and Biratnagar were gradually modernised. For modernising agriculture practices in the Tarai, a demonstration farm was established in Parawanipur. Farms were also established at Godavari and Alle in the Kathmandu Valley as well as in other places. These inputs brought positive results in fisheries, agronomy and horticulture.

Realising the need for a cooperative approach to development, the government in 1952, sent four persons to Sri Lanka for training under the Colombo Plan. A Cooperative Department was established upon their return in 1953. By 1959 the Agriculture Department had established the following eleven sections listed in Table 1.

Table 1
Sections and Functional Responsibilities

S. N.	Section	Functions
1	Agronomy	Crop and fodder production.
2	Horticulture	Production of fruits and vegetables.
3	Soil	Soil testing and management.
4	Entomology	Control of plant insects.
5	Pathology	Control of plant diseases.
6	Veterinary	Control of livestock diseases.
7	Fishery	Development of fishery farms.
8	Livestock Improvement	Livestock Development and improvement.
9	Dairy Development	Production of milk and dairy products.
10	Agri-Engineering	Problems related to engineering of agriculture and on farms.
11	Training	Public education and extension of improved farming technology among farmers.

FOREIGN AID, RURAL DEVELOPMENT AND POLICIES

International support in the form of relief came to Nepal in the aftermath of the 1934 earthquake. The governments of Canada, USA, and India (then

British India) provided assistance. Initially foreign aid and the concomitant support were used in the agriculture sector. In the early decades aid packages had larger technical support components, and less financial assistance than they do today.³ When Nepal started along the path of development in 1951, the country's capacity to implement programmes was weak. Though the conference proceedings does mention the 5-and 15-year plans, which suggest Nepal did have the capability to plan, it is silent about the details of the plans.

Another major constraint was the weak database on which the plan was based. Plans and programmes seemed to be *ad hoc* and fragmented responses rather than emerging from a holistic concept. The establishment of demonstration farms and the development of canals and barrages are such examples. Only in 1956 did the Ministry of Planning and Education formally put forward the country's first five-year plan (1957-1962). Though it aimed for balanced regional development, the subsequent programmes focussed on creating infrastructure around the capital and Tarai.⁴

The report discusses some major development programmes implemented after the restoration of democracy in 1951, which include the Tribhuvan Rural Development Programme, the Rapti Dun Integrated Development Plan, the New Settlement Programme, the Cooperative Development and the Land Reform. The former two were developed and implemented in cooperation with USAID (then United States Operation Mission, USOM). The other three were government efforts, which received only partial support from the aid agencies. Conceived within the plan for the development of agriculture, these initiatives include the following: improved farming techniques, training and education for farmers, crop diversification, integrated rural development, settlement of people and support for the local economy.

Tribhuvan Rural Development Department: The USAID assisted programme was initially named Village Development Project. The government created the Village Development Service to implement the programme. Subsequently in 1953, it was renamed the Tribhuvan Rural Development Department (TRDD) after late King Tribhuvan. As a body of the central government, it supervised all rural development activities including USAID supported programmes. The report describes the context in which this department was established:

In 1953, with the cooperation of the U.S., HMG established the Tribhuvan Rural Development Department (*Tribhuvan gram bikas bibhag*). Its objective was to implement an ag-

riculture expansion programme and was the first step taken for organised development of villages. Learning from the experiences of other countries, Nepal adopted an agriculture extension and a collective development system. Prior to this plan, the *bada hakim* was responsible for local development (*sthaniya sudhar karyaharu*).⁵

The TRDD implemented various farm-related programmes in different parts of the country. In order to implement the programme, four training centres were established to train village development workers (*gramin sebak and sebika*). By 1959 the programme established thirteen rural development centres. These were expected to benefit 700,000 people of 1600 villages.

Rapti Dun Development Plan: In 1954, a major flood hit the mountain districts in central Nepal. Large tracts of farmlands were washed away and covered with sand deposits. Lives and properties were lost. Thousands became land-less and homeless. Despite its fertile soil, the Rapti Dun was uncultivated and uninhabited. Rapti Dun, a river valley in Chitwan District was initially chosen for developing the region as a new settlement to rehabilitate flood-affected families and land-less farmers. In order to sell and distribute the uncultivated land a committee was formed under the Act *Rapti Dun ko Jamin Bikri-bitaran Niyam 2013 BS*. This project was one component of the new settlement plan of the first five-year plan. The Rapti Dun Development Department was established in 1957 with the following objectives:

- a) alleviate the food shortage in Kathmandu
- b) implement a resettlement plan and
- c) establish cooperative demonstration farms.

Research on various agricultural activities was conducted and cooperatives were established under the plan.

New Settlement and Land Cultivation: In the early part of this century Tarai was under thick forest cover and malaria infested. In the hills and Tarai people occupied and cultivated land at will and secured registration certificates only after they settled. After 1920s, the government began to discourage squatting in selected zones. Due to the increasing pressure of a rapidly growing population, however, encroachment on forests continued to increase. Because there was no resettlement policy, large tracts of forests were lost.⁶ In the face of the outcome like erosion, land degradation and flooding, the government conceived a long-term plan to develop new settlements.

The report describes this plan as follows:

In the first five-year plan, the need for new land for cultivation is recognised. Forestland of low economic value can be cleared and distributed to land-less farmers to cultivate. The numbers of such farmers increase by one hundred thousand annually. The majority of the farmers practice shifting cultivation (*khoria kheti*). A plan was developed to support the newly settled landless farmers by providing them with irrigation, schools, health services, transport facilities, improved agricultural tools and seeds and market to sell their products. Almost 300,000 *bighas* of land in the Tarai and 300,000 *ropanis* of land in the hills are to be brought under cultivation.⁷

This was the second initiative by the government to resettle population. The country's first resettlement was implemented from 1922 to 1924 in Hetauda and Amalekhganj. Both plans aimed to extend the area under cultivation by converting unused grassland or forest of low economic value into farmland. The first plan, however, failed for several reasons. One major reason was malaria. In addition, the land selected for resettlement was not suitable for cultivation.⁸ From the early 1930s, each subsequent government adopted this approach as its major strategy for meeting the shortage of farmland and food for the growing population, but no government was successful.

IRRIGATION PERSPECTIVE

The report highlights the fact that in 1950s, the planners understood the importance of locally managed irrigation schemes. The report emphasises the need to support existing irrigation systems, which are now called "Farmer Managed Irrigation Systems (FMIS)". Decentralised management was favoured. The report highlights the importance of irrigation as follows:

Due to geographical variations, each region of Nepal experiences its own seasonal and uncertain monsoon rains. In order to meet the water requirements of crops, irrigation systems should be developed. Since time immemorial, canals have been constructed and land irrigated.

About traditional irrigation management practices, the proceedings noted that irrigation schemes built and managed by farmers are in operation. Farmers, the report claims, seek government help only to construct (or reconstruct) large canals and diversions beyond their capacity. These practices are common and, indeed, traditional irrigation management institutions like

rajkulo, *chitai*, *dari* and *dhalpa* are still functional. Some activities were the responsibility of *gaunda goswara*. Later irrigation related activities were brought under the jurisdiction of *maal adda*.⁹

In 1921-27, Prime Minister Chandra Sumsher laid the foundation stone of a diversion weir at Trijuga River. With the construction of this system, Nepal entered the era of modern irrigation development. The Chandra Canal System was completed in 1928. Designed to irrigate 22,000 *bighas* of land in Saptari District, the system cost Rs. 2,400,000.¹⁰ In 1940, during the reign of Prime Minister Juddha Sumshere, the Agriculture Council started to construct *Judha Nahar* in Rautahat in order to irrigate 3000 *bighas* of land. The irrigation project was completed at a cost Rs. 250,000.

The report mentions that to supervise existing irrigation systems in Kathmandu Valley, irrigation department was established under the Agriculture Council. In Birgunj, Department of Agriculture Engineering was established to supervise *kulo* in the Tarai. In 1950, the Canal Department (*Nahar Bibhag*) consisting of a chief engineer and a superintendent engineer was established. The department was given the responsibility of monitoring and supervision of *Chandra nahar* and *Judha nahar* including other irrigation activities.¹¹

RECOMMENDATIONS

Overall strategy for the development of agriculture, general policies, specific programmes and activities are reflected in the recommendations. It includes separate outlines on agriculture, rural development, new settlement and cultivation, cooperative department, use of water resources and irrigation, land reform and food security. On food arrangements, seven policy guidelines are mentioned. Others include construction of road network linking the hills with the Tarai, reviving practices of food storage (*dharma bhakari*) in the hilly region, mobilising cooperative organisations and increased tax on food export. The report also includes recommendation on optimal use of water resources. The recommendations are

- provide technical and financial support in terms of loans and grants to local organisations and individuals for the construction of permanent canal (*kulo*) and/or temporary intakes (*bandh*) for drinking water and irrigation purposes.
- provide technical advice and construction materials to local groups and individuals for the construction of *kulo* or *paini* (canal system in hills and Tarai respectively), *bandh* and drinking water systems.

- provide technical and financial assistance to semi-government or co-operative organisations for the management of drinking water.
- initiate government run projects to construct large-scale irrigation and drinking water systems.
- provide technical help to groups and individuals interested in animal husbandry, horticulture etc.
- maintain records of loss, profit and progress in agro-farm activities.
- maintain international CGS system of units for all measurement purpose so that the traditional measurement including parameters such as *mana/pathi* for volume, *kosh/gaj* for length and *bigha/ropani/ muri* for area are replaced.
- stop *khoria phadani* practices (a type of shifting cultivation).
- establish an Agricultural Bank.
- identify and develop international and national market for agro-products.
- formulate necessary acts, rules and regulations to resolve legal problems related with protection of public land and forest, land ownership, tenancy and acquisition of new farmland.
- conduct a national level survey to identify soil type, structure, and quality so that land suitable for agriculture can be identified.

CONCLUSION

In studying this report, one must keep in mind the political context at the time of the conference. The last interim government of the interregnum following the overthrow of the Ranas in 1951 ruled Nepal. This all-party government, headed by Subarna Sumsher Rana, drafted the constitution of Nepal 2015 BS under which the first multi-party parliamentary election were held in the country barely four months after the conference. The report shows a continuous thread in government thinking from Rana rule to democracy.

Nepal started modern agriculture development in the 1930s with the notion of avoiding food shortages both during normal times and during disasters, as well as for earning revenue. The creation of transport and communication infrastructure and the provision of education/training were limited towards fulfilling the needs of the capital. Attempts to institutionalise development works in agriculture started after establishment of the Agricul-

ture Council in 1937. State-led irrigation development followed the construction of the Chandra Canal. These initiatives, however, did not bring the desired change. After the establishment of a democratic political system in 1951, the role of foreign aid and aid agencies started to acquire a dominant presence in the formulation of national policies and planning.

The first conference on agriculture emphasised on the need for developing infrastructure to transform subsistence farming practices into modern, cash-generating businesses. The agriculture development plan was meant to tackle the food shortages compounded by the increasing population, and by the fact that more people were affected by the natural disasters. Increasing food production was also seen as a precursor to a more balanced diet for the population.

The document mentions that Nepal has been importing food occasionally since 1920 and almost regularly since the Second World War. The report says that the surplus food of the Tarai used to be sent to India because the lack of transport and communication facilities impeded in-country distribution. This postulation seems to contradict the current understanding that Nepal was self sufficient in food production in the past and that food was the country's foremost export commodity after timber.

Inaccessibility and poor communication also curbed regular commerce between traders in the plains and those in the food scarce regions of the hills. For the farmers in the Tarai selling surplus produces across the border or to other easily accessible, parts of the Tarai appeared more preferable than trading in the hills. Government interventions could improve the supply system only to a limited extent, but these tasks necessitated planning, coordination, and implementation, which was beyond the government's capacity. It is, therefore, difficult to fully accept Nepal's food export status of the past. Due to its physical diversity, the country cannot be portrayed homogeneously even today. To say that towards the 1940s the country was self sufficient in food would hardly be an accurate representation of the reality.

The report encapsulates the thinking of the government and reveals the challenges as seen by the nascent Agriculture Department. It recognises the myriad challenges for the development of agriculture and describes the initial efforts of the conference delegates in responding to these challenges. As can be expected of such a document, it does not contain all the details used to arrive at specific conclusions. Still it does provide one perspective related to the agriculture and irrigation development planning of the 1950s. The document suggests that the capacity to prepare plans was not a limitation in Nepal, but that implementation was. Even today, this discrepancy continues to be problematic.¹²

For development planners, scholars and students interested in gaining insight into Nepal's development of agriculture in the 1950s, the report is a useful document. It is worth noting, however, that the proceedings is limited in the sense that it contains no specific database. It also lacks details about the policies, plans and programmes that it outlines. The document seems to be a compilation of reports prepared by different working groups during the conference. There are repetitions and statements that are unclear.

The document also allows us to compare current approaches towards development with the approaches followed 40 years ago.¹³ The developmental philosophy of the 1990s, in fact, seems to have its genesis in those that were pursued in the 1950s. The present emphasis on increasing role of farmers and beneficiaries in irrigation and drinking water management, compares with the provision of a soft loan and technical support to farmers, cooperative development, and decentralisation, which were recommended in 1950s. The constructions of a road, the establishment of ropeways, and bringing additional land under cultivation such as development of the Chitwan Valley were mentioned as state's responses to providing food security and development. These initiatives have a common strand, which was that the ultimate beneficiary was the capital city.¹⁴ A subtle capital bias and centralisation seemed to be at work silently.

Another important, and precocious, concern seems to be the environmental degradation, defined in terms of growing encroachment on forest, increasing erosion, landslides, sedimentation and floods. The report shows sensitivity for conservation, and the awareness regarding harmful effects of chemical fertilisers.

This document will be of interest to all those with interest in Nepal's foray into modern development, as it allows better understanding of the development challenges and its constraints. It may also serve as the starting point in trying to understand why the implementation of development, especially in agriculture, has been so dismal in the forty years that followed.

NOTES

¹ The population of Nepal, mentioned by the minister in the conference was 8.4 million.

² Though chemical fertiliser is a necessity, establishment of the factory is no longer an issue of public discourse in 1990s

³ The USAID (then USOM- US Operation Mission) initiated programmes for the development of Nepal's agriculture through technical cooperation on 23rd January, 1951. The agreement marked the beginning of an era of foreign aid in the country's development. The programmes, however, did not make significant progress, because they encountered several implementation problems. Political instability was a major fac-

tor. The eight changes of government in the 1950s disrupted and paralysed the administration as well as the development initiatives (Skerry *et al.*, 1991). Failure also was due to poor conceptualisation, replication of models developed elsewhere, but inappropriate for Nepal and by the simplistic assumption that development and social change takes place in short spans of time.

- ⁴ The plan lacked the prerequisites for comprehensive planning e.g. statistics and an agency for gathering them, manpower, needs and goals, as well as coordination and monitoring. HMG's priorities at the time reflected those of the donors as it was forced to rely on the data collected by them and on their field activities for planning information. As the primary donor in Nepal, USAID strongly influenced the development priorities of the first plan, which was the creation of infrastructure and agriculture extension (Skerry *et al.*, 1991).
- ⁵ The *bada hakim* was appointed chief of the administrative district. In 1958, there were 37 districts in all. Today there are 75 districts in 14 zones and 5 development regions.
- ⁶ Before ACO was established, the *mal goswara* handled land registration activities. The office registered agricultural land after roughly examining if the land examination if the land was under forest, and if it was appropriate for cultivation. The ACO developed the criteria to distribute land for the first time. These included an application for registration, and *sar-jamin* (verification) by the locals to determine whether the use of the land was restricted, whether the land was in a forest zone or whether it was suitable for cultivation.
- ⁷ Rapti Dun Land Distribution Committee was formed under the project to resettle the landless. The resettlement plan included the distribution of 30,000 *bighas* of land to 7,000 farmers' families in five years. By 1957 only 3,000 families had been resettled and 14,000 *bighas* of land distributed. The new settlement plan was developed as a part of the Rapti Dun Multipurpose Development Project in the first five-year plan. The institutional mechanism for land distribution was the *Rapti Dunko Jamin Bikribitaran Niyam 2013 (1957 A D)*.
- ⁸ The 1923-25 initiative to resettle people in Hetauda and Vikshyakhori (now Amlekhganj) failed. Vikshyakhori was a *bhavar* region unsuitable for agriculture. Malaria could not be controlled and led to the death of those who opted to settle there.
- ⁹ *Mal adda* refers to the administrative mechanism, which collected land tax and revenue.
- ¹⁰ Athmes and Horst of the British Indian Public Works Department (PWD) supervised the construction of the Chandra Canal. The engineers of the same organisation managed the canal system later.
- ¹¹ The objective of development of the Chandra and Juddha Canals was to generate revenue by boosting the cultivation of cash crops. These systems were not part of an integrated plan, but *ad hoc* initiatives.
- ¹² Stiller's (1993) analysis of development efforts in Nepal before 1951 also shows that there was no lack of ideas.
- ¹³ Nepal is recognised as a *krisi pradhan desh* (Primarily an agriculture based country). According to Thapa (1997) the share of the agricultural sector of the country accounts for over 50 percent of GDP, and 80 percent of total employment.
- ¹⁴ The mention of the introduction of new technologies such as roads, ropeways, and modern irrigation development for ensuring food security has to be reconciled with the question of social carrier of technologies. According to Gyawali (1989) modern technology in Nepal was introduced more as a medium of luxury than the means of production, the latter fact being the reason for development of technology in Europe during the Industrial Revolution.

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