

REFORMATION OF HORTICULTURAL INSTITUTIONS IN NEPAL

Dr. Bharat Kumar Poudyal
Mr. Lekhnath Acharyal

INTRODUCTION

Horticulture in general includes pomology, olericulture, floriculture, seed production, cultivation of plantation crops, protection and preservation of products, etc. Recently, several traditionally grown crops, particularly the horticulture crops, have been cultivated in commercial scale and subsistence farming has been shifting towards commercial farming. Traditional farming of several horticultural crops are now being commercialized and several new entrepreneurs have been emerging in horticulture sector. Because of the impact of commercialization area, production and productivity of plantation crops like tea, coffee, beetlenuts, etc.; fruit crops like citrus, apple, pear, mango, litchi, banana, papaya, etc.; vegetable crops such as tomato, cauliflower, cabbage, etc. and spice crops like ginger and cardammon, etc. have been increasing dramatically. Together with the increase in the number of commercial growers and increase in acreage and production of such crops, demand of new and especial technologies and services from the private sectors have also been increasing day by day. The government needs to think for providing and delivering special services in such sectors to cope up with the demand of the clients. By considering these facts and to address the problems, reformation of horticultural institution was envisaged for which a new department, i.e., Department of Horticulture Development (DHD) under the Ministry of Agriculture Development, has been proposed together with other few new sections under Fruit and Vegetable Directorates. This proposal has been prepared by considering the present situation of the country which is heading towards Federalism in the near future. New organizational setup has been proposed and this structure will remain as such under central government or central level organizations, except for District Horticulture Development Office (DHDO) which might be under state control.

HISTORICAL BACKGROUND

Due to variation in topography, altitude and aspect, Nepal has diverse climate within short distance. Consequently, diversity in crops, animals, forest and overall ecosystem is found (Pandey, 2001). With varied geography, land formation, climate and topography, Nepal is one of the richest countries in the world in terms of biodiversity. Several improved varieties and wild relatives of fruits, vegetables, spices, etc. are available here and almost any crops of the world can be grown in Nepal including tropical, sub tropical and temperate crops.

By realizing these facts, even during Rana regime few orchards in Terai and Mid hills were established (Pandey, 2001). According to Thapa (2001), for the first time in Nepal an agriculture office was established in the year 1922 AD and the extension of this program was supported by the vocational school established in the year 1932 AD. Village development program for general people was implemented as priority program in the year 1953 AD followed by Community development program during the first five-year plan 1956-61 AD. Likewise, by realizing the scope and importance of horticultural development, the Government of Nepal established Horticulture Section under the Department in the year 2012 BS before the implementation of the 1st Five year plan, 2013 BS. This section was shifted from Harihar Bhavan, Lalitpur to Kirtipur, Kathmandu in the year 2018 BS. The second and third Five year plan, i.e. 2019 to 2027 BS, adopted integrated model of rural development. Later, government expanded the activities throughout the country by increasing the activities of horticulture by establishing 14 new horticultural farms and stations during the year 2017 to 2027 BS.

Realizing the importance of the role of agriculture including horticulture and to provide easy access and effective services to the farmers for overall agriculture development and finally social change, the government of Nepal established Department of Pomology (*Faloddhan*) together with other 5 departments in the year 2023 BS for the first time. At that time, farming was not commercialized and farmers were practicing traditional subsistence integrated farming system. By considering the farmers' need and financial burden and to minimize the administrative cost, the government of Nepal amalgamated all 5 departments and restructured into a single Agriculture Department in the year 2029 BS. To implement the effective programs of specific crops, Vegetable Development Section, Fruit Development Section, National Citrus Development Program and National Potato Development Program were established under the Department of Agriculture in the same year.

Realising the importance and primary role of horticulture for overall economic development of the country, after the restoration of democracy, the government of Nepal re-established the Department of Horticulture in the year

2047 BS. However, in the year 2049 BS, the government of Nepal again restructured and brought a new "One Umbrella" concept, in which all 5 departments were again integrated under the Department of Agriculture Development in the year 2049 BS. In the same year, it also upgraded the Fruit Development Section into Fruit Development Directorate (FDD) and the Vegetable Development Section into Vegetable Development Directorate (VDD) empowered with independent financial and administrative authority. In the year 2056 BS, the independent financial and administrative authorities of all the directorates were ceased and merged into the Department and all the Directorates were considered as a part of the Department of Agriculture without financial and administrative power. As a result, the technical service delivery process was slacked. Consequently, it hampered overall agriculture development process. By realizing the situation, the cabinet decided the restoration of development directorates with more administrative as well as financial power to delivery service more efficiently and effectively in the year 2057 BS. Similarly, in the year 2049 BS, administrative autonomy of Potato Development Program, now National Potato Development Program (NPDP), Ginger and Cardamom Development Program, now National Spices Crop Development Program (NSDP) and Citrus Development Program, now National Citrus Development Program (NCDP), were given to FDD and VDD in the year 2058 BS. Financial authority was also given to the Fruit and Vegetable Development Directorate; however, by the decision of the government of Nepal in the year 2061 BS, financial authority was again handed over to the concerned National Development Programs.

Rationale for Reformation of Horticultural Institutions:

Recently, difficulties have been realised to deliver quality services of horticulture to the farmers due to commercialization of several horticultural crops under the present organizational structure of the Department of Agriculture. Twelve Directorates of specific crops and services under the Department of Agriculture together with hundreds of district, regional and central level offices are there and it is difficult to be monitored and evaluated by a single department. Thus, implementation of several programs and projects throughout the country seems extremely difficult. Considering this fact, DHD is proposed as per demand of the clients to deliver horticultural programs and services effectively and efficiently throughout the country. The pros and cons of horticulture sector today is listed below; these are only some of the examples.

- Nepal was at 138th position in the world in human development index (HDI) few years ago. But in the year 2011 (AD), Nepal's position dropped to 157th position which indicates that Nepal needs to progress rapidly. Average human development index of South Asia is 0.548 and that of Nepal is just 0.458, which indicates that Nepal has to accelerate its economic growth quickly.
- In the past, household income of majority of the Nepalese families was contributed by agriculture sector. However, at present, agriculture sector's contribution to the household income is only 28 % and the rest comes from non agricultural sectors. Therefore, the role of agriculture for income generation is declining and is being criticised.
- According to the report of the last year, agriculture contributed about 34.1 % in national GDP in which horticulture alone has contributed about 17 %. But the allocated budget in horticulture was very low as compared to other agricultural sectors. Therefore, to implement the commercial programs in horticulture, a separate DHD is needed and thus proposed.
- Horticulture sector contributes a major share in the national income and employment in the country. More than 65 % of the people in the country depend on agriculture. Of the total cultivated area in the country, 3.34 % land is covered by fruit crops. According to the statistics, in the FY 2068/069 BS, out of 139226 ha of cultivated fruit crops, 101233 ha are under productive area from which 1027931 mt fruits were produced. Likewise, according to the statistics in the same FY, 3203563 mt vegetables, 2508044 mt potato and 325487 mt spices crops were produced throughout the country from 244102, 182600 and 47867 ha, respectively.
- All the national plans and programs have emphasized on employment generation, economic development to reduce poverty, and inclusion to bring peace in the country. Only about 44 % of the national income of the country is in the hands of 80 % rural poor. Therefore, unless and until the economic upliftment of rural poor is not achieved, no any target and objectives of the country will be met in the stipulated time.
- Because of the limited size of land holdings, the utmost important thing is to increase production and productivity and it must go for horticultural high value crops and off season production, particularly of vegetables.

- It is also observed that feasibility of commercial farming and production potential of horticultural crops in Nepal is very high. As a result, Agriculture Perspective Plan (APP) has also emphasized the commercial production of high value crops like Apple, Citrus fruits, Vegetable seeds, Spices, etc. for income generation.
- The role of commercial production of horticulture crops is very important for income generation and eventually food security of the small farmers in Nepal.
- A little effort of APP for the commercialization of Apple, Citrus, Vegetable seeds, Spices, etc. has been observed in few pockets of the country by using pocket package strategy. As a result, few horticultural commodities have been commercialized within 15 years of time interval of APP despite the lack of infrastructures like irrigation, road, electricity and other aspects of coordination.
- Even though there is lack of access to credit, transportation, etc. and has limited resources, Nepal is nearly self sufficient in horticultural crops like ginger, cardamom, vegetables, etc.
- Out of the total Nepalese export of agricultural products, the contribution of horticultural products worth Rs. 64 billion in the FY 2067/68 BS. Cardamom and tea contributed Rs. 2.4 and 1.55 billion, respectively. Likewise, export of ginger, offseason vegetables, vegetable seeds, etc. have also been steadily increasing in the recent years.
- The role of horticulture for the production of raw materials for agro-based industries like turmeric, ginger, chillies, etc. for spice industry, tea and coffee for beverage industry, fruits and vegetables for canning, juice, jam industry, is significant. Horticulture also has to be emphasized to meet the future demands.
- Import substitution of onions, chillies, garlics, potatoes, apples, citrus fruits, tropical and temperate fruits, etc are very important. These crops have future potential to increase area, production and productivity as per demand.
- Realizing the important role of horticulture in the country, the government in the past had established Horticulture department two times and merged due to lack of clear vision.
- As per the demand from the grass root level as well as need of the country, now it is found very crucial and necessary to establish DHD in the country. Now, most of the farmers are educated youths who are commercial as well as specialized in farming. Therefore, specialized service is necessary for meeting their demands.
- It is very difficult to provide such specialized services from the Department of Agriculture under existing organizational structure, particularly in the field of horticulture.
- Without industrialization and export promotion, it is very difficult for any country to be economically sound. The niches for industrial production of other sectors are limited as compared to production of high value low volume crops. Therefore, the government has to emphasize the horticulture sector, for which the establishment of a DHD becomes a necessity.
- Moreover, more than 66 % of the land of Nepal lie in high hills and hills with very limited irrigation facilities. This area is not suitable for commercial production of cereals. Therefore, horticultural crops like fruits, vegetable seeds, spices, etc. are only options as compared to other crops. Therefore, the government has to prioritize horticulture.
- The administrative cost of the agricultural offices under the Department of Agriculture is much more higher which is about 80 % as compared to the program cost which is only about 20 %. By considering this fact, the proposed structure has been designed to balance program cost with administrative cost.
- Unemployment problem in the country is terrifying. Migration of youths to the third country in search of job is tremendously increasing. Moreover, interest of youth towards traditional agriculture is decreasing due to which productive lands are changing into barren lands. Interestingly, educated youths have now started commercial farming on several crops such as vegetable, spices, tea, coffee, etc. on commercial scale. To meet the demand of specialized services to them, it has now become necessary to establish a Horticulture Department together with specialized services in the sector.
- Recently, more than 500 horticulturists with graduate degree (and/or more) are ready to provide services, which is necessary to substitute the junior technical assistant and junior technicians, to provide high quality and specialized services to the young and educated growers. High quality specialized services to the educated youth growers could help in initiating radical change in horticulture sector in the country to build economically robust new Nepal.

- Cereal farming is extensive and horticulture farming is intensive. Therefore, it is necessary to take special care and services to horticultural crops for which new department is proposed.
- To address the problem of global warming, climate change, hunger and the problem to feed the bulgering population of the world, Nepal has to set out for commercial production of fruits, tea, coffee and other high value crops on the limited land available and for that, special emphasis on horticulture is necessary.
- Feasibility of commercial production of horticultural crops such as fruits, vegetables, seeds, off season vegetables, spices, tea, coffee, etc. has been identified by several national as well as international organizations for the export.
- It is found that the major pockets of fruits, vegetables, spices, etc. are found around the horticultural farms and stations in Nepal such as vegetable pockets like Naubise, Daman, Kathmandu, Lalitpur, Bhaktapur, Panchkhal, Rukum, Salyan, and fruit pockets like Mustang, Dhankuta, etc. due to impact of these farms/centres. However, the present condition of almost all the horticultural farms under the Department of Agriculture are very poor and have not got any priority regarding means and resources. For this reason also, establishment of DHD is necessary and is proposed accordingly.
- It is also observed that the production of high value crops is basically the horticultural products that come from the hills and high hills.
- APP expects to increase the agricultural growth from 3 % to 5 % through horticulture and livestock sectors.
- Keeping all these facts in view, APP has also proposed establishment of a new DHD in Nepal after the analysis of all facts and their pros and cons. However, it is not yet implemented.

Why Reformation is Essential:

- To prioritize overall horticultural development of the country
- To establish policy guidelines related to horticulture development in the country
- To strengthen the horticultural organizations and institutions
- To properly utilize available resources for horticultural development
- To identify and intensify funding sources for horticulture development
- To strengthen the relationship and synchronize horticulture sectoral activities with other stakeholders and departments related to horticultural development such as road, irrigation, power, biotechnology, etc. and to make strong linkage with value addition activities, processing, packaging industries, exporters, etc.
- To address the specific needs of the clients related to horticultural development
- To stop lengthy beaureocratic processes for horticultural development eventually to enhance decision making process quickly.

Proposed DHD and its Offices:

Small administrative structure is proposed under DHD to make the department smaller but effective and to reduce lengthy beauriocracy. Under the direct supervision of the Department, Fruit Development Directorate (FDD), Vegetable Development Directorate (VDD), National Citrus Development Program (NCDP), National Spices Crop Development Program (NSDP), and Natinal Potato Development Program (NPDP) are proposed together with 75 District Horticulture Development Offices (DHDO) and 22 Horticultural Centres.

Department of Horticulture Development (DHD):

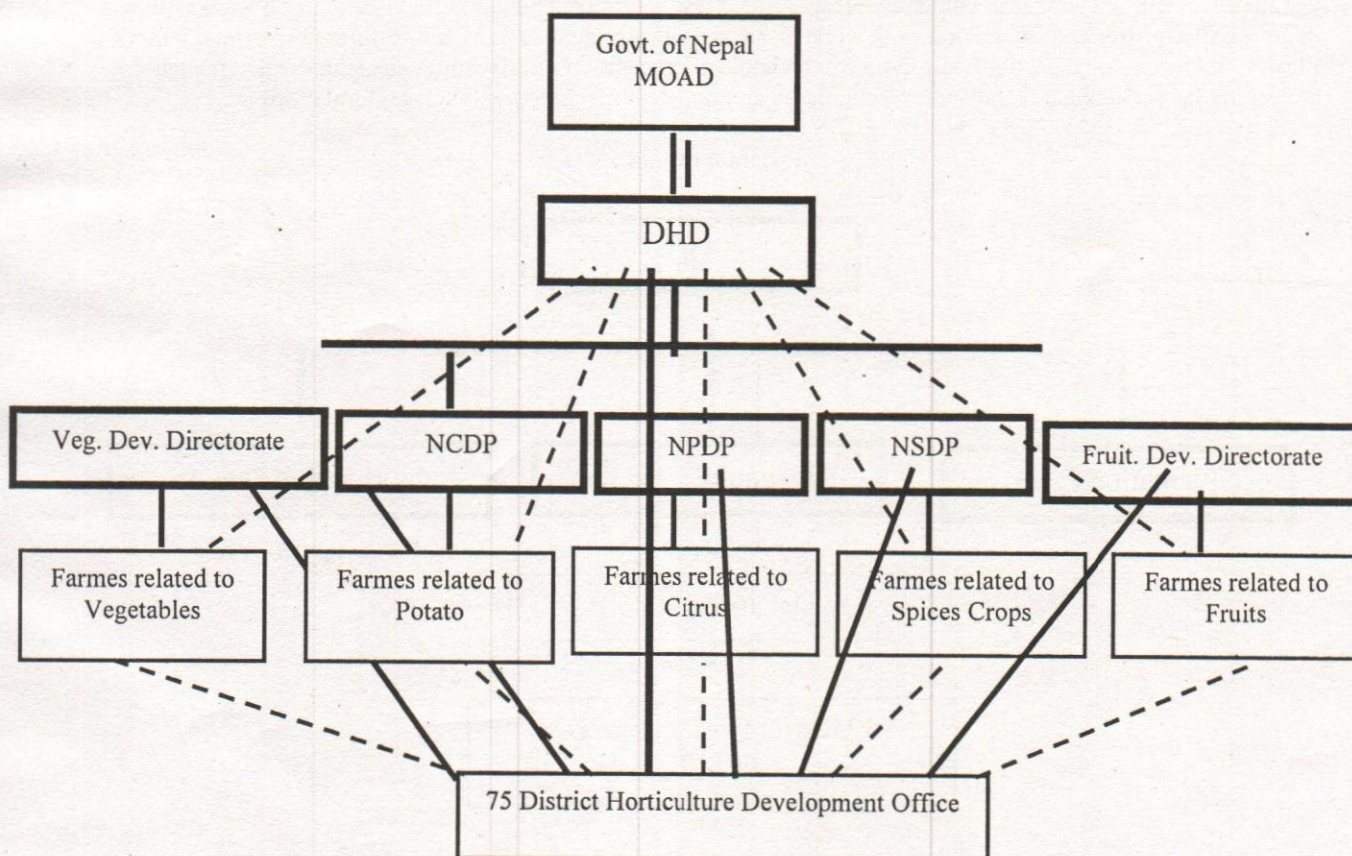
Three major sections will remain directly under DHD: Planning and Budget Section; Administrative, Monitoring and Evaluation Section; and Training and Human Resource Development Section. According to the proposal, Deputy Director General will be the head of Administration, Monitoring and Evaluation Section and other 2 section heads will be Senior Horticulture Development Officers. Altogether 24 staffs including 1 Director General and 1 Deputy Director General is proposed under the DHD.

Total Post Under DHD

S.N	Post	Class	Number	Remarks
1	Director General	Gaz. Officer-I (Tech)	1	
2	Deputy Director General	Gaz. Officer-I (Tech)	1	
3	Senior Horticulture Development Officer	Gaz. Officer-II (Tech)	3	1 post in each section
4	Under Secretary	Gaz. Officer-II (Admin)	1	
5	Horticulture Development Officer	Gaz. Officer-III (Tech)	6	2 posts in each section
6	Planning/Financial Officer	Gaz. Officer-III (Tech)	1	
7	Section Officer	Gaz. Officer-III (Admin)	1	
8	Law Officer	Gaz. Officer-III (Admin)	1	
9	Account officer	Gaz. Officer-III (Admin)	1	
10	Junior Technician	Non Gaz. Officer-I (Tech)	6	2 posts in each section
11	Clark	Non Gaz. Officer-I (Admin)	1	
12	Accountant	Non Gaz. Officer-I (Admin)	1	
Total Post			24	

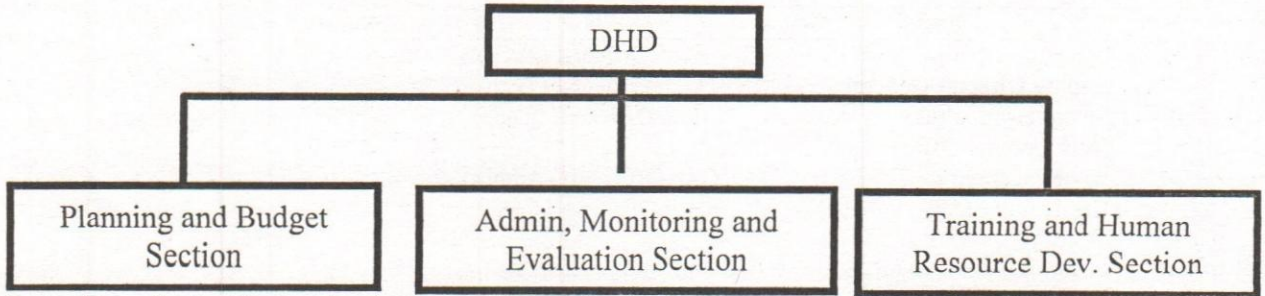
Note: Service of driver, swiper and office assistance will be on service contract basis

Linkage and Relationship of DHD and its Offices



Altogether 2 Directorates and 3 National Programs in central level, 21 horticultural centres and 75 District Horticulture Development Offices will remain directly and indirectly under DHD as shown in figure above.

Sections Under DHD

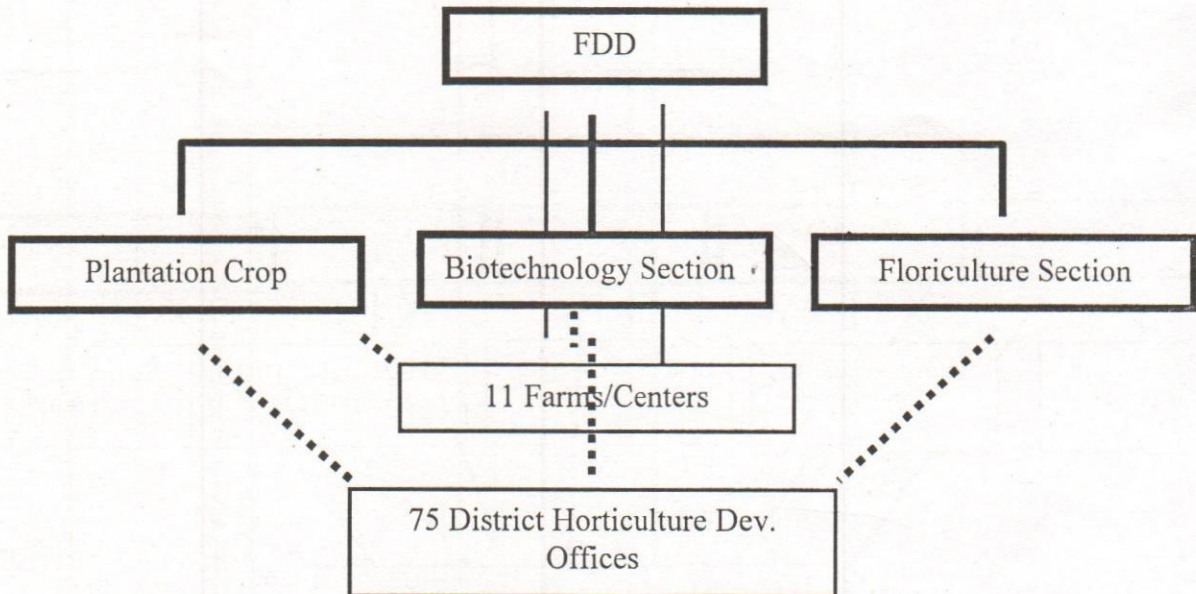


Post of 1 senior horticulture development officer, 2 horticulture development officer, 1 junior technician will remain in each section. Deputy director general will be the head of admin, monitoring and evaluation section. To make the DHD efficient and to run admin and financial matter smoothly, post of each under secretary (GO II admin), planning/financial officer (GO III Technician), section officer (GO III admin), law officer (GO I admin), clerk (NG I technician), accountant (NG I admin) will be maintained. However, service of driver, office assistant, sweeper, office guard, etc will be managed on contract basis. Office of DHD will remain in the Kirtipur premises.

Fruit Development Directorate (FDD):

Three sections will remain under Fruit Development Directorate (FDD): plantation crops section, biotechnology section and floriculture section. Plantation crop section will look after the development of tea, coffee, coconut, beattlenut, etc. This section will especially help in the technical support for the growers, technology generation and improvement, increment in palntation area, national level record keeping and finally extension woks will be done. Similarly, floriculture section will work in all activities related to floriculture throughout the country. Finally, biotechnology section will perform technology generation, trials and extension works related to biotechnology including genetic engineering, tissue culture, etc, especially in all horticultural crops.

Organogram of FDD



Altogether 9 posts will remain under FDD including 1 program director, 1 senior fruit development officer, 2 fruit development officers, 1 planning/finance officer, 2 junior technicians, 1 accountant and 1 clerk. Likewise, each section (plantation crops, biotechnology and floriculture) will have 7 posts. Altogether there will be 30 posts within FDD with details below. FDD will remain in the Kirtipur premises.

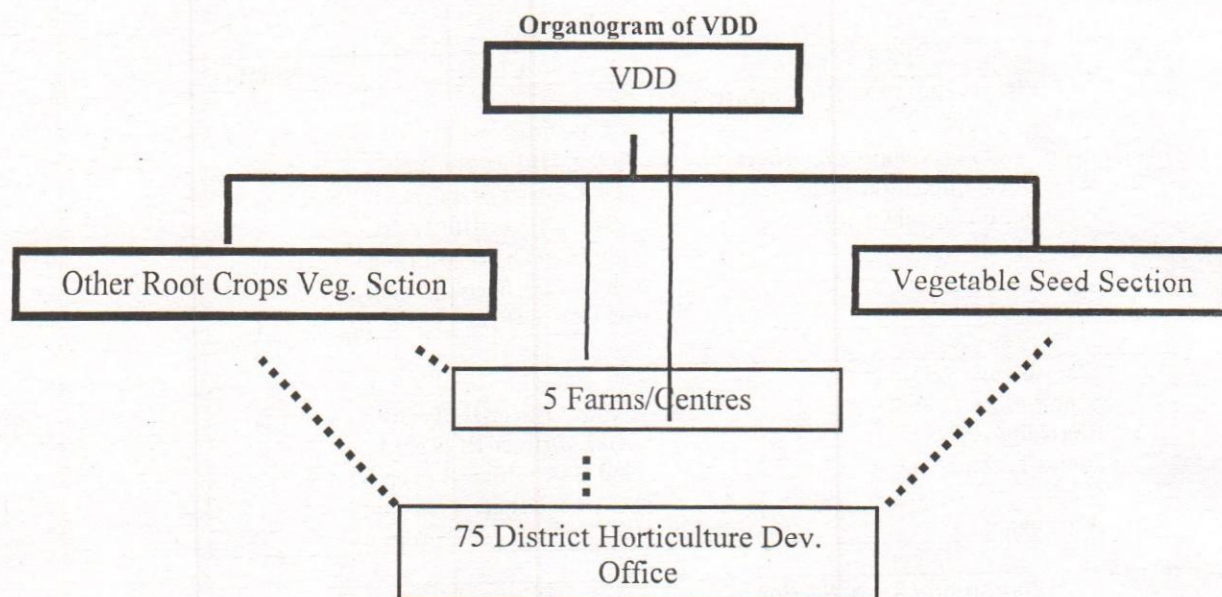
Total Posts Under FDD

SN	Post	Class	Number
1	Fruit Development Directorate		
1.1	Program Director	Gaz. Officer-I (Tech)	1
1.2	Senior Fruit Development Officer	Gaz. Officer-II (Tech)	2
1.3	Fruit Development Officer	Gaz. Officer-III (Tech)	2
1.4	Planning/Financial Officer	Gaz. Officer-III (Tech)	1
1.5	Junior Technician	Non Gaz. Officer-I (Tech)	1
1.6	Clark	Non Gaz. Officer-I (Admin)	1
1.7	Accountant	Non Gaz. Officer-I (Admin)	1
	Total Post		9
2	Floriculture Section		
2.1	Senior Floriculturist	Gaz. Officer-II (Tech)	1
2.2	Floriculturist	Gaz. Officer-III (Tech)	2
2.3	Junior Technician	Non Gaz. Officer-I (Tech)	2
2.4	Clark	Non Gaz. Officer-I (Admin)	1
2.5	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		7
3	Plantation Crops Section		
3.1	Senior Plantation Crop Dev. Officer	Gaz. Officer-II (Tech)	1
3.2	Plantation Crop Dev. Officer	Gaz. Officer-III (Tech)	2
3.3	Junior Technician	Non Gaz. Officer-I (Tech)	2
3.4	Clark	Non Gaz. Officer-I (Admin)	1
3.5	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		7
4	Biotechnology Section		
4.1	Senior Biotechnologist	Gaz. Officer-II (Tech)	1
4.2	Biotechnologist	Gaz. Officer-III (Tech)	2
4.3	Junior Technician	Non Gaz. Officer-I (Tech)	2
4.4	Clark	Non Gaz. Officer-I (Admin)	1
4.5	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		7
	Grand Total		30

Note: Service of driver, swiper and office assistant will be on service contract basis

Vegetable Development Directorate (VDD)

Two sections will remain under VDD i.e. *Kandamul* (other root crop vegetables) section and vegetable seed section. No any significant work has been done so far under other root crop vegetables like yam, colocacia, taro, cassava, chayote, etc. (except for the only farm in Sindhuli). However, interest of the general people on these crops is increasing. This is why, by realizing the public interest and importance of these crops, a special section has been proposed under this. Likewise, by realizing the export potential and appropriate climatic condition of Nepal together with nature of low volume high value, another new section, vegetable seed section, has also been proposed.



Altogether 9 posts are proposed under VDD i.e. 1 program director, 1 senior vegetable development officer, 2 vegetable development officers, 1 planning/finance officer, 2 junior technicians, 1 accountant and 1 clerk. Likewise, other root crops vegetable sction (*Kandamul* Section) will be equipped with 7 posts and vegetable seed section with 7 posts. Altogether 23 posts will remain under VDD. The details of the post is tabulated below:

Posts Under VDD

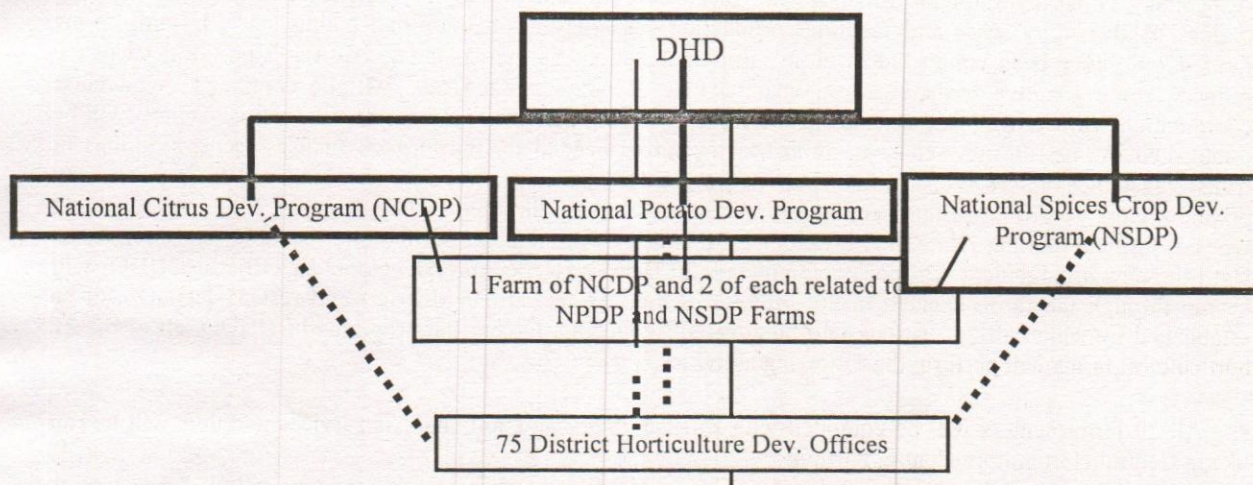
SN	Post	Class	Number
1	Vegetable Development Directorate		
1.1	Program Director	Gaz. Officer-I (Tech)	1
1.2	Senior Vegetable Development Officer	Gaz. Officer-II (Tech)	1
1.3	Vegetable Development Officer	Gaz. Officer-III (Tech)	2
1.4	Planning/Financial Officer	Gaz. Officer-III (Tech)	1
1.5	Junior Technician	Non Gaz. Officer-I (Tech)	2
1.6	Clark	Non Gaz. Officer-I (Admin)	1
1.7	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		9
2	Other Root Crops Veg. Section		
2.1	Senior Other Root Crop Dev. Officer	Gaz. Officer-II (Tech)	1
2.2	Other Root Crop Dev. Officer	Gaz. Officer-III (Tech)	2
2.3	Junior Technician	Non Gaz. Officer-I (Tech)	2
2.4	Clark	Non Gaz. Officer-I (Admin)	1
2.5	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		7
3	Vegetable Seed Development Section		
3.1	Senior Vegetable Seed Development Officer	Gaz. Officer-II (Tech)	1
3.2	Vegetable Seed Development Officer	Gaz. Officer-III (Tech)	2
3.3	Junior Technician	Non Gaz. Officer-I (Tech)	2
3.4	Clark	Non Gaz. Officer-I (Admin)	1
3.5	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		7
	Grand Total		23

Note: Service of driver, swiper and office assistant will be on service contract basis.

National Development Programs (NDP):

Due to very high production potential of the 3 categories of crops of Nepal viz. citrus, potato and spices, they will have separate national programs as existing. Specially, all of the three national programs will be involved in coordinating adoptive research and trials, germplasm collection and maintenance, policy and act making, national level data update, and national level program planning, monitoring, supervision and evaluation works. National Citrus Development Programme (NCDP), National Potato Development Programme (NPDP), National Spices Crop Development Programme (NSDP) will be facilitated by 9 different types of post in each national program. Altogether, 27 posts will be created. All the national programs will remain under the administration of DHD together with Fruit and Vegetable Development Directorate. Three Program directors (citrus, potato and spices crops), 3 senior development officers on potato, citrus and spices crops (1 in each program), 6 potato, citrus and spices crop development officer (2 in each program), 3 planning/finance officer (1 in each program), 6 junior technicians (2 in each program), 3 clerks (1 in each program), and 3 accountant (1 in each program) will be created. In this way, altogether 27 national program posts will be created with 9 in each program.

Organogram of National Programs



The details of all posts under national programs and class and proposed number of posts have been tabulated below.

Posts under National Programs

SN	Post	Class	Number
1	National Citrus Development Program (NCDP)		
1.1	Program Director	Gaz. Officer-I (Tech)	1
1.2	Senior Citrus Development Officer	Gaz. Officer-II (Tech)	1
1.3	Citrus Development Officer	Gaz. Officer-III (Tech)	2
1.4	Planning/Financial Officer	Gaz. Officer-III (Tech)	1
1.5	Junior Technician	Non Gaz. Officer-I (Tech)	2
1.6	Clark	Non Gaz. Officer-I (Admin)	1
1.7	Accountant	Non Gaz. Officer-I (Admin)	1
	Total		9
2	National Potato Development Program (NPDP)		
2.1	Program Director	Gaz. Officer-I (Tech)	1
2.2	Senior Potato Development Officer	Gaz. Officer-II (Tech)	1
2.3	Potato Development Officer	Gaz. Officer-III (Tech)	2
2.4	Planning/Financial Officer	Gaz. Officer-III (Tech)	1
2.5	Junior Technician	Non Gaz. Officer-I (Tech)	2
2.6	Clark	Non Gaz. Officer-I (Admin)	1

2.7	Accountant	Non Gaz. Officer-I (Admin)	1
Total			9
3 National Spices Crops Development Program (NSDP)			
3.1	Program Director	Gaz. Officer-I (Tech)	1
3.2	Senior Spices Crop Development Officer	Gaz. Officer-II (Tech)	1
3.3	Spices Development Officer	Gaz. Officer-III (Tech)	2
3.4	Planning/Financial Officer	Gaz. Officer-III (Tech)	1
3.5	Junior Technician	Non Gaz. Officer-I (Tech)	2
3.6	Clark	Non Gaz. Officer-I (Admin)	1
3.7	Accountant	Non Gaz. Officer-I (Admin)	1
Total			9
Grand Total			27

Note: Service of driver, swiper and office assistance will be on service contract basis

Farm/Centers:

Altogether, 21 horticultural farms/centres are located throughout the country in the respective geographical regions. High quality seeds and seedlings production, germplasm collection and maintenance, training to the farmers, etc. have been conducted in these farms and stations as their mandate. By realising the need of the farmers, some adaptive trials, research, maintenance of breeders seed, etc. will be continued with close coordination with NARC, as per needs of the farmers. New concept of "Horticulture Resource Centre" will be established. As per the new concept, almost all resources needed for the farmers such as seeds, seedlings of fruits, vegetables, spices crops, ornamental crops, etc. will be made available and managed from public and private sectors according to local condition, needs and demands through resource centres. Moreover, different types of farmers training related to horticulture crops will be arranged at horticulture resource centre regularly. Until the new arrangement will not be completed, 20 District Horticulture Development Offices (DHDO) will be run through the farms located in 20 different districts (2 in Lalitpur district) and rest 55 DHDO will be established by which all 75 districts will be covered by DHDO. Except the programs of DHDO, all of the 21 horticultural farms will perform the following activities.

- All 20 farms/centers will be equipped with soil laboratory and soil analysis services and thus will be run like in Central Horticulture Centre, Kirtipur
- Similarly, to identify and control the insect pests and diseases of horticultural crops, all 20 farms/centres will be facilitated with crop protection laboratory like in Central Horticulture Centre, Kirtipur
- Likewise, adaptive trials and collaborative researches will be conducted in several horticulture crops with close collaboration with national and international research institutions, NARC, agencies, NGOs/INGOs, companies, etc.
- Permission for the researches related to horticultural crops will be granted and conducted in all farms/centres with close collaboration with TU, AFU, HICAST, KU, private colleges, etc, especially for B.Sc., M.Sc., Ph.D. students, and other research scholars.

All the approved recent posts of farms will be adjusted together with few new posts as tabulated below. Service of class less posts like driver, swiper and office assistant will be on contract basis and all the class less permanent posts will automatically be collapsed as soon as the person retires. Likewise, the permanent posts of *kharidar*, field man, field assistant, etc. will automatically be collapsed after their retirement from the post. The new post of senior horticulturist, soil scientist, and plant protection officer is proposed one each in all 20 horticultural farms. In this way, 11 posts will remain in all 20 farms (except one farm of Godawari, Lalitpur). Each farm/centre will have one clerk and one accountant, 2 horticulturists and 4 junior technicians. In this way, altogether 230 posts will remain in 21 farms.

Total Proposed Posts under Horticulture Farms/Centers

SN	Post	Class	Number
1	Senior Horticulture Development Officer	Gaz. Officer-II (Tech)	20
2	Horticulture Development Officer	Gaz. Officer-III (Tech)	44
3	Soil Scientist	Gaz. Officer-III (Tech)	20
4	Plant Protection Officer	Gaz. Officer-III (Tech)	20

5	Junior Technician	Non Gaz. Officer-I (Tech)	84
6	Clark	Non Gaz. Officer-I (Admin)	21
7	Accountant	Non Gaz. Officer-I (Admin)	21
Total			230

Note: Service of driver, swiper and office assistant will be on service contract basis

Horticultural farms/centers located in different geographical locations throughout the country are tabulated below (with address). District horticulture development office (DHDO) of these districts will be run by all these farms in their concerned districts except for floriculture farm, Godawari, Lalitpur. DHDO will be run by Central Vegetable Seed Production Centre, Khumaltar, Lalitpur.

Name of Farms/Centers, address and their respective Directorates and National Programs

SN	Name of Farms/Centers	Address	Respective Directorates and National Programs
1	Central Vegetable Seed Production Centre	Khumaltar, Lalitpur	VDD
2	Sub Tropical Vegetable Seed Production Centre	Rukum	"
3	Vegetable Germplasm Conservation and Seed Production Centre	Dadeldhura	"
4	Other Root Vegetable Crops Development Centre	Sindhuli	"
5	Temperate Vegetable Seed Production Centre	Jufal, Dolpa	"
6	Cardamom Development Centre	Fikkle, Ilam	NSDP
7	Spices Development Centre	Panchkhal, Kavre	"
8	Nuclear Seed Potato Production Centre	Nigale, Sindhupalchok	NPDP
9	Potato Development Centre	Darma, Humla	"
10	Central Horticulture Centre	Kirtipur, Kathmandu	FDD
11	Horticulture Centre	Faplu, Solukhumbu	"
12	Temperate Fruit Rootstock Development Centre	Boach, Dolakha	"
13	Tropical Horticulture Nursery Development Centre	Janakpur, Dhanusa	"
14	Tropical Horticulture Centre	Nawalpur, Sarlahi	"
15	Floriculture Development Centre	Godawari, Lalitpur	"
16	Temperate Horticulture Nursery Development Centre	Daman, Makwanpur	"
17	Tropical Horticulture Development Centre	Trishuli, Nuwakot	"
18	Temperate Horticulture Development Centre	Marpha, Mustang	"
19	Dry Fruit Development Centre	Satabajh, Baitadi	"
20	Coffee Development Centre	Aapchur, Gulmi	"
21	Citrus Fruit Development Centre	Tansen, Palpa	NCDP

Note: Service of driver, swiper and office assistant will be on service contract basis

District Horticulture Development Office (DHDO):

DHDOs in all of the 75 districts will be established to deliver and implement the programs related to horticulture development throughout the country. All of the 20 DHDOs will be run by 20 horticulture farms/centres and the rest 55 DHDOs through newly established offices. Among 55 new DHDOs, the senior horticulture development officers (Gaz. Class II, Technician) will be appointed as office in charge in potential 26 districts and the rest 29 DHDOs will be run by horticulture development officers (Gaz. Class III, Technician). Similarly, each DHDO will comprise of 2 staffs who are horticulture development officers, junior technician, or junior technical assistant. Likewise, one post each of accountant and clerk will be deployed. In this way, altogether 9 staffs will be deployed in each DHDO to make small but efficient and effective administration for the implementation of district horticultural development programs and projects. By considering the demand of horticulture services from the villages, horticulture service centres will be established with close cooperation with the Village Development Committee.

Total Posts of 55 DHDOs

SN	Name of Post	Class	Number
1	Senior horticulture development officers	Gaz. Class II, Technician	26
2	Horticulture development officers	Gaz. Class III, Technician	110
3	Junior Technician	NG Class I, Technician	110
4	Junior Technical Assistance	NG Class II, Technician	110
5	Accountant	NG Class I, Administration	55
6	Clark	NG Class I, Administration	55
Total			466

Note: Service of driver, swiper and office assistant will be on service contract basis

Altogether 466 posts will be maintained in 55 DHDOs. Within DHD throughout the country, 803 different posts will be maintained including the DHD, FDD, VDD, NCDP, NPDP, NSDP, Farms/centres, and DHDOs as tabulated below:

Offices under DHD, Post and their numbers								
Types of Post and Their Number								
SN	Name of Office	Technician			Administration			Grand Total
		Gazette	NG	Total	Gazette	NG	Total	
1	DHD	12	6	18	4	2	6	24
2	FDD	14	8	22	-	8	8	30
3	VDD	11	6	17	-	6	6	23
4	NCDP	5	2	7	-	2	2	9
5	NPDP	5	2	7	-	2	2	9
6	NSDP	5	2	7	-	2	2	9
7	21 farms/centers	104	84	188	-	42	42	230
8	55 DHDO	136	220	356	-	110	110	466
Grand Total		292	330	622	4	174	178	800

Out of 800 posts, most of the posts were already fulfilled and very few posts have to be fulfilled through new appointments. Out of 800 posts, 622 i.e. about 78 % posts were technical in which 292 were gazette and 330 posts were non-gazette. Similarly, out of 174 posts of administration, only 4 posts were gazette and the rest 170 were non-gazette.

Number of Posts Under Technical and Admin

178/22% 622/78%

Technical Admin

Most of the posts were already fulfilled but new proposed post of 20 soil scientists and 20 crop protection officers from all of the 20 farms needs the creation of new posts. An arrangement of dismissing of non-gazette posts will be managed together with retirement of the concern personnel and replacement by the respective gazette officers. In the village level, delivery of horticulture services will be done from Village Development Committee (VDC) together with their close coordination and cooperation; future restructuring will be carried out as per the needs and wants of the government.

Total Proposed Posts Under Department of Horticulture Development (DHD)

Post and Class			Name of Office and their Level						
SN	Name of Post	Class	National Level Offices				District Level Offices		Total Posts
			DH D	Directorate	National Program	Sections	Farm/Centre	Dist. Hort. Dev. Office	
1	Director General	Gaz. Class I, (Technician)	1						1
2	Deputy Director General	Gaz. Class I, (Technician)	1						1
3	Program Director	Gaz. Class I, (Technician)		2	3				5
4	Senior Horticulture Development Officers	Gaz. Class II, (Technician)							
5	Under Secretary	Gaz. Class II, (Administration)	3	2	3	5	20	26	59
6	Horticulture Development Officers	Gaz. Class III, (Technician)	1						1
7	Soil Scientist	"	6	4	6	10	44	110	180
8	Plant Protection Officer	"					20		20
9	Planning Officer	"	1	2	3		20		20
10	Law Officer	Gaz. Class III, (Administration)							6
11	Account Officer	"	1						1
12	Section Officer	"	1						1
13	Junior Technician	NG Class I, Technician	6	4	6	10	84	110	220
14	Junior Technical Assistant	NG Class II, Technician						110	110
15	Accountant	NG Class I, (Administration)							
16	Clark	NG Class I, (Administration)	1	2	3	5	21	55	87
			1	2	3	5	21	55	87
	Total		24	18	27	35	230	466	800

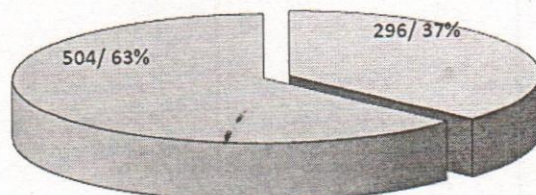
Note: Service of driver, swiper and office assistant will be on service contract basis

District Horticulture Development Office (DHDO) run by Farms/Centers

SN	Name of District	Name of Farm/Centers which will run the DHDO
1	Lalitpur	Central Vegetable Seed Production Centre
2	Rukum	Sub Tropical Vegetable Seed Production Centre
3	Dadeldhura	Vegetable Germplasm Conservation and Seed Production Centre
4	Sindhuli	Other Root Vegetable Crops Development Centre
5	Dolpa	Temperate Vegetable Seed Production Centre
6	Ilam	Cardammon Development Centre
7	Kavre	Spices Development Centre
8	Sindhupalchok	Nuclear Seed Potato Production Centre
9	Humla	Potato Development Centre
10	Kathmandu	Central Horticulture Centre
11	Solukhumbu	Horticulture Centre
12	Dolakha	Temperate Fruit Rootstock Development Centre
13	Dhanusa	Tropical Horticulture Nursery Development Centre
14	Sarlahi	Tropical Horticulture Centre
15	Makwanpur	Temperate Horticulture Nursery Development Centre
16	Nuwakot	Tropical Horticulture Development Centre
17	Mustang	Temperate Horticulture Development Centre
18	Baitadi	Dry Fruit Development Centre
19	Gulmi	Coffee Development Centre
20	Palpa	Citrus Fruit Development Centre

Note: Service of driver, swiper and office assistant will be on service contract basis

Proposed Gazette and Non-gazett Posts



Gazette Non-gazette

Total Proposed Posts of 55 DHDOs

SN	Name of District	Senior Hort. Dev. Officers	Horticulture Dev. Officers	JT	JTA	Accountant	Clark	Total Posts
1.	Jhapa	1	2	2	2	1	1	9
2.	Morang	1	2	2	2	1	1	9
3.	Sunsari	1	2	2	2	1	1	9
4.	Saptari	1	2	2	2	1	1	9
5.	Tehrathum	1	2	2	2	1	1	9
6.	Dhankuta	1	2	2	2	1	1	9
7.	Ramechhap	1	2	2	2	1	1	9
8.	Dhadhing	1	2	2	2	1	1	9
9.	Chitwan	1	2	2	2	1	1	9
10.	Gorkha	1	2	2	2	1	1	9
11.	Nawalparasi	1	2	2	2	1	1	9
12.	Rupandehi	1	2	2	2	1	1	9
13.	Bara	1	2	2	2	1	1	9
14.	Parsa	1	2	2	2	1	1	9
15.	Tanahun	1	2	2	2	1	1	9
16.	Kaski	1	2	2	2	1	1	9
17.	Syanga	1	2	2	2	1	1	9
18.	Dang	1	2	2	2	1	1	9
19.	Salyan	1	2	2	2	1	1	9
20.	Dailekh	1	2	2	2	1	1	9
21.	Surkhet	1	2	2	2	1	1	9
22.	Banke	1	2	2	2	1	1	9
23.	Bardia	1	2	2	2	1	1	9
24.	Kailali	1	2	2	2	1	1	9
25.	Kanchanpur	1	2	2	2	1	1	9
26.	Jumla	1	2	2	2	1	1	9
27.	Taplejung	0	2	2	2	1	1	8
28.	Sankhuwasabha	0	2	2	2	1	1	8
29.	Panchthar	0	2	2	2	1	1	8
30.	Bhajpur	0	2	2	2	1	1	8
31.	Khotang	0	2	2	2	1	1	8
32.	Okhaldhunga	0	2	2	2	1	1	8
33.	Siraha	0	2	2	2	1	1	8
34.	Mahottari	0	2	2	2	1	1	8
35.	Udayapur	0	2	2	2	1	1	8
36.	Rasuwa	0	2	2	2	1	1	8
37.	Bhaktapur	0	2	2	2	1	1	8
38.	Kapilbustu	0	2	2	2	1	1	8
39.	Rauthat	0	2	2	2	1	1	8
40.	Lamjung	0	2	2	2	1	1	8
41.	Manang	0	2	2	2	1	1	8
42.	Parbat	0	2	2	2	1	1	8
43.	Magyadi	0	2	2	2	1	1	8
44.	Baglung	0	2	2	2	1	1	8
45.	Arghakhachi	0	2	2	2	1	1	8
46.	Puthan	0	2	2	2	1	1	8
47.	Rolpa	0	2	2	2	1	1	8
48.	Jajarkot	0	2	2	2	1	1	8
49.	Kalikot	0	2	2	2	1	1	8
50.	Accham	0	2	2	2	1	1	8
51.	Doti	0	2	2	2	1	1	8
52.	Darchula	0	2	2	2	1	1	8
53.	Mugu	0	2	2	2	1	1	8
54.	Bajura	0	2	2	2	1	1	8
55.	Bajhang	0	2	2	2	1	1	8
Total		26	110	110	110	55	55	466

Note: Service of driver, swiper and office assistant will be on service contract basis.

All posts of 24 Gha 1 will be adjusted and no any new posts will be created to fulfill the posts.

Chronology of Institutional Support for Horticultural Development

Year (AD)	Activities
1937	Establishment of fruit nurseries and orchards in Chhauni, Balaju and Godavari
1948	Agricultural farms at Kakani and Parwanipur
1951	Horticulture farm, Godawari
1955	Horticulture section established under the Department of Agriculture
1960	Agriculture station, Nepalgunj (with horticulture unit)
1960	Horticulture project under Indian Cooperative Mission (ICM)
1961	Horticulture farm, Pökharā and Agriculture centre, Dhankuta
1962	Horticulture farm, Daman, Helambu, Trishuli and Baitadi
1963	Horticulture farm, Janakpur
1964	Horticulture farm, Yagyapuri, Chitwan
1967	Formation of Department of Horticulture, Horticulture farm, Jumla and Mustang
1969	Horticulture farm, Palpa
1970	Agariculture farm, Rasuwa
1971	Horticulture farm, Humla
1972	Establishment of Fruit Development Division, Vegetable Development Division, National Citrus Development Program, National Potato Development Program
1972	Establishment of extensive horticulture centre, Nawalpur
1973	Vegetable seed production centre, Khumaltar
1974	Horticulture farm, Panchkhal and Sindhuli
1975	Nucleus potato development farm, Nigale
1976	Agriculture farm, Nepalgunj (with horticulture unit)
1977	Horticulture farm, Solu, Dailekh; Ginger research farm, Kapurkot; Cardamom development centre, Fikkal and Horticulture farm, Bonch
1977	Hill agriculture development project (supported to strengthen horticulture farms)
1978	Vegetable seed production centre, Rukum
1982	Post of a separate Deputy Director General (Horticulture and Fisheries) was created
1985	Coffee development centre, Aanpchaar
1985	JICA funded horticulture development project at Kirtipur
1988-91	Post of additional secretary for horticulture in MOA
1989-89	Assistant minister for horticulture
1989	Master plan for horticulture development prepared; Hill fruit development project
1990	Re-establishment of Department of Horticulture
1990	Establishment of horticulture development offices in 30 districts
1992	Amalgamation of all 4 departments into one Department of Agriculture Development
1992	Lowering down of the status of Citrus and Potato development program from national level to sectional level under fruit and vegetable division, respectively
1992	Establishment of spices development section and tea and coffee development section
1995	Agriculture perspective plan prepared (horticulture on priority: apple, citrus, off-season vegetable and vegetable seed production as priority output)
1996	Fruit and vegetable market development project
1996	Nepal tea development corporation
1996	Market access for rural development project
1999	Olive development project

Source: Thapa P.K. (2001).

REFERENCES

- Anonymous, 2069. Annual Report FY 2068/69. Fruit Development Directorate, Kirtipur, Kathmandu, Nepal
- Anonymous, 2069. Annual Report FY 2068/69. Vegetable Development Directorate, Khumaltar, Lalitpur, Nepal.
- Pandey, I.R. (2001). Contribution of Horticulture Farms in Research and Development in Nepal. Proceedings of the Second National Horticulture Workshop, May 15-26, 2001. Nepal Horticulture Society. pp 25-28.
- Thapa, P.K. (2001). Re-strengthening Horticulture Institutions in Enhancement of Horticulture Industry in Nepal. Proceedings of the Second National Horticulture Workshop, May 15-26, 2001. Nepal Horticulture Society. pp 39-54.