

Management of Government Owned Horticulture Farms

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ABSTRACT

At present, there are 21 government horticulture farms under the Department of Agriculture and 4 under NARC. The NARC also has horticultural units in Agricultural Research Stations of Pakhribas, Tarahara, Parwanipur, Lumle, and Nepalgunj. There are abundant examples of positive contributions made by government farms to horticulture development. Apple production in Jumla and Mustang, vegetable seed production in Rukum, junar production in Sindhuli and Ramechhap and fresh vegetable production in Kavre, Dhading, Sarlahi, Para, Parsa, Rautahot and mandarin orange production in Dhankuta are some of the examples of farm contributions. The system of farm operation has not been effective due to the many reasons: Basic objectives assigned to the government farms at the time of their establishment are now redundant as private sectors and NGOs have started to take up some of those functions. Thus, the roles of the government farms should be redefined in the changed context and management system needs to be adjusted accordingly.

INTRODUCTION

Although introduction of fruits and vegetables in Nepal was started from the time of Rana Regime, the effort of horticulture development at the governmental level was made from 1937 with the establishment of fruit nurseries at Godawari and Balaju. In 1940, an experimental farm was established at Tahachal, Kathmandu from where limited quantities of vegetable seeds used to be produced and sold through Beej Bahadur at Judha Sadak. During the period of sixties, 13 horticulture farms/stations were established at different agro-ecological zones of the country with the support of Indian Cooperation Mission. At present, there are 21 government horticulture farms under the Department of Agriculture and 4 under NARC. The NARC also has horticultural units in Agricultural Research Stations of Pakhribas, Tarahara, Parwanipur, Lumle, and Nepalgunj. In the context of horticulture development, there are abundant examples of positive contributions made by government farms. Apple production in Jumla and Mustang, vegetable seed production in Rukum, junar production in Sindhuli and Ramechhap and fresh vegetable production in Kavre, Dhading, Sarlahi, Para, Parsa, Rautahot and mandarin orange production in Dhankuta are some of the examples of farm contributions. But the management of government farms has always become an issue, particularly during program and budget discussions at the NPC and Ministry of Finance. A list of the government managed horticulture farms with their ecological locations, total areas and main crops are given the following table.

Table 1: Government owned horticultural farms in Nepal

SN	Name of the farms	Eco-logical zone	Total area (ha)	Main crops	Remarks
1	Central Horticulture Center, Kirtipur	Mid-hill	20.00	Warm temperate fruits and citrus	The area shared by armed police
2	Horticulture Farm, Sindhuli	Inner terai	6.65	Root crops	
3	Horticulture Farm, Panchkhal	Mid-hill Besi	7.50	Spice crops	
4	Horticulture Farm Godawari	Mid-hill	3.72	Flowers and ornamental plants	

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5.	Horticulture Farm Trisuli	Mid-hill Besi	14.85	Sub-tropical fruits	
6	Horticulture Farm, Palpa	Mid-hill	9.20	Citrus, coffee, zinger	
7	Coffe development Farm, Gulmi	Mid-hill Besi	1.40	Coffee	
8	Vegetable Seed Production Center, Rukum	Mid-hill	5.85	Onion and other vegetables	
9	Central Veg.Seed Production Center, Khumal	Mid-hill	8.00	Different vegetables	Its area shared by NARC and ICIMOD
10	Vegetable Seed Production Farm, Dadeldhura	Mid-hill	4.33	Different vegetables	
11	Cardamom Dev. Center, Phikal, Illam	Mid-hill	18.60	Big cardamom	
12	Horticulture Research Center, Patle, Dhankuta	Mid-hill	26.00	Citrus	NARC
13	Horticulture Research Center, Pokhara	Mid-hill	30.00	Sub-tropical fruits	Aea shared by armed police and others NARC
14	National Zinger Research Programme, Salyan	Mid-hill	4.85	Zinger	
15	Horticulture Farm, Solu	High-hill	17.50	Apple and other temperate fruits	
16	Horticulture Farm, Boch	High-hill	16.50	Rootstock production of temperate fruits	
17	Horticulture Farm, Daman	High-hill	76.22	Nusery of temperate fruits and potato	
18	Horticulture Farm, Marpha	High-hill	9.85	Apple,apricot,vegetables	
19	Nucleus Potato Seed Center, Nigale	High-hill	5.50	Potato	
20	Horticulture Farm, Darma	High-hill	23.00	Potato, apple	
21	Horticulture Research Farm, Rajikot	High hill	5.00	Temperate horticulture	NARC
22	Horticulture Farm, Baitadi	High hill	28.00	Dry fruits	
23	Horticulture Farm, Dolpa	High hill	2.00	Vegetable seeds and olive	
24	Horticulture Center, Sarlahi	Terai	185.50	Tropical horticulture	
25	Horticulture Farm, Janakpur	Terai	7.00	Tropical fruit nursery	

EXISTING OPERATION SYSTEM

The above farms are operated by two operating systems, viz. regular and double tract systems. In the regular system, there are targeted annual programmes for which annual budget is sanctioned. The permanent staffs of the government are responsible to implement the farm programmes. Seasonal labor is used to perform field activities, such as field preparation, planting, crop cultivation, harvesting etc. This system of farm operation has not been effective due to the following reasons:

- There is inconsistency in the government policy for farm operation
- There is lack of farm management strategy.
- The farms are not given priority and hence, there is an always budgetary constraint.

- In most of the farms, the land resource is not fully and properly utilized
- There is no uniformity in the operation of these farms due to the lack of operating guidelines.
- The farms are lacking farm master plan
- The rigid administrative and financial rules and regulations are hampering day to day farm operation
- The farm managers are not trained in farm management and this has resulted in haphazard management.
- The revenue oriented attitude of the policy makers at the central level has also discouraged.
- The programmes are planned and implemented based on the whims of the policy makers and politicians.

The second farm operating system, which is called the double tract system of farm operation, was introduced in 2003 without adequate supportive studies. This system is practiced in the operation of the horticulture center of Nawalpur, Sarlahi, which is the largest and very important horticulture farm in Nepal. In this system of farm operation, programmes are planned and implemented in a two pronged approach including 1) the regular programmes of the farm carried out as usual with the regular government budget, and 2) an additional income generating programmes launched in a commercial manner by utilizing the farm's potential and resources. The income generated from this programme is utilized as follows:

- 15 percent to be deposited in the government treasury;
- 25 percent set aside as programme operation fund;
- 30 percent to be used in repair, maintenance and stock replenishment in the farm; and
- the remaining 30 percent to be paid as incentive to the staff involved.
- Now, this system of farm operation has been discontinued.

SUGGESTED TIPS FOR EFFECTIVE MANAGEMENT

- Basic objectives assigned to the government farms at the time of their establishment are now redundant as private sectors and NGOs have started to take up some of those functions. Thus, the roles of the government farms should be redefined in the changed context.
- The ministry of agriculture and cooperatives should develop and implement farm operation strategies and guidelines.
- Government horticulture farms may be effective practical schools of farmers where they can acquire practical knowledge by seeing and doing. The government of Nepal should look these farms in this perspective and prioritize them in providing adequate budget and other resources
- Basically farm operation is an economic activity which involves three elements, viz. the scarcity of resources, their alternative uses and the objectives of the farms. But all the farm managers are core horticulturists having very little knowledge about management. That is why; the principles of farm management are not applied in the operation of the government horticulture farms. In fact, they are managed haphazardly on personal interest of the farm manager. Therefore, there is an urgent need to provide management training to all farm managers so that they have sufficient knowledge on administration and management including strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. They should also keep themselves up-to-date technically and apply new knowledge to their jobs. Knowledge of raw materials, production processes, quality

control, costs, and other techniques for maximizing the effective production and distribution of farm produces are essential.

- Understanding of the local environment through study of available weather data and survey of locally grown crops is essential to select suitable crops for the farm.
- Communicating with people outside the organization, representing the organization to customers, the public and other external sources is also equally important to manage farms effectively and making them self sustainable.
- Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others should also be included in training courses of farm managers.
- Farm operation always demands extra time of the farm staffs. It means they have to work extra time. Furthermore, the field level staffs of the farm have to work hard in the field. In order to encourage farm staff to work overtime in the field, provision of some incentives is necessary.
- The study on management strategy of the government farms and training centers conducted by the APP/SP in 2006 reported that majority of the farmers wanted government horticulture farms to be service oriented. This is one of the main functions that each horticulture farm is performing since its establishment. The organization structure of these farms is also based on this function. Therefore, the concept of 1:1 ratio of budget and revenue, which the economists and policy makers are favoring, does not match with the objective and function of the farm. But matching of budget with this function is very essential to achieve anticipated outputs.
- The report of the committee formed by the ministry of agriculture and cooperatives in 2004 suggested that some of the farms have now become less important than the other in the present context. Those farms should be either handed over to other interested agencies or privatize.
- Physical facilities such as buildings, farm machineries and tools, fencing, in most of the farms are in bad condition. After an assessment of these farms by a committee, immediate action must be taken to rehabilitate those facilities found in bad condition.
- Provision to share resources of the horticulture farms by NGOs and other development partners in collaboration should be made as soon as possible.
- Security of the farms is the big concern at present. To address this issue, options should be searched to make security system effective.
- Labour shortage due to migration of agricultural labour force to foreign countries has affected government managed horticulture badly in the recent years. In order to address this problem, mechanization of farm operations is necessary.

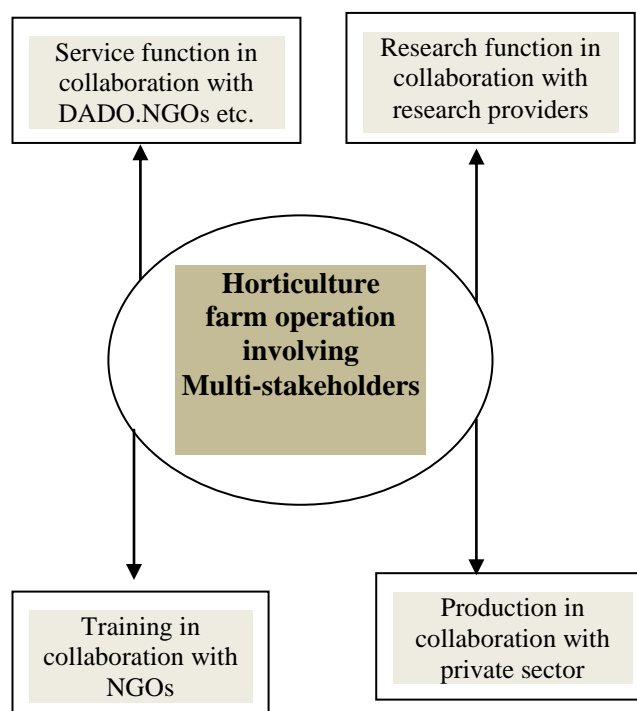


Fig.1: Horticultural farm operation involving multi-stakeholders.

- In the context of devolution of extension services, there is a need to develop some farms and centers into multi-disciplinary resource centers. Based on the geographical location and available facilities, horticulture centers Sarlahi, Kirtipur and Mustang can be develop into such horticultural resource centers to provide technical feed-back to the command areas.
- The time has come to introduce pluralism in farm operation. In this context, the involvement of NGOs, cooperatives and private sector is possible. However, a detailed study by a team of the experts is necessary to develop and finalize the model of farm operation involving multi-stakeholders
- It is suggested that each horticulture farm should have four types of functions as shown in figure-10. Service function should have collaboration with DADOs and NGOs. Training should be collaborated with NGOs. Research providers should be the partners for research function and private sector might be interested to collaborate in production function.

TERMS OF REFERENCES FOR FARM MANAGERS

A job of the horticultural farm manager falls under the broader career category which includes the following terms of references:

- Plan, organize, direct, supervise, and coordinate activities of workers engaged in field works, such as field preparation, seed sowing, propagating, cultivating, and harvesting of horticultural crops which may include trees, shrubs, vegetables, flowers, mushrooms, and other plants.
- Visit fields at least two times daily to observe work being done, to inspect crops, and to evaluate plant and soil conditions.
- Inspect facilities and equipments for signs of disrepair, and perform necessary maintenance work.
- Identify plants as well as problems such as diseases, weeds, and insect pests.
- Coordinate clerical, recordkeeping, inventory, requisitioning, and marketing activities.
- Determine plant growing conditions, such as greenhouses, or or open fields, and set planting and care schedules.
- Assign work schedules and duties to nursery or greenhouse staff, and supervise their work.
- Manage nurseries that grow horticultural plants for sale to traders or retail customers, for display or exhibition, or for research.
- Hire workers, and train them in gardening techniques.
- Determine types and quantities of horticultural plants to be grown, based on budgets, projected targets, market demands and/or executive directives.
- Select and purchase production inputs such as seeds, plant nutrients, insect-pest and disease control chemicals, and garden and lawn care equipments as per requirement on time.
- Provide information to customers on the care of trees, shrubs, flowers, plants, and lawns that are sold from the farm.
- Confer with horticultural personnel in order to plan facility renovations or additions.
- Construct structures and accessories such as greenhouses and benches.
- Negotiate contracts and agreements such as those for partnership programs and collaborative activities.
- Develop curriculum and organize trainings for extension workers and leader farmers
- Prepare technical and financial reports as per the circular of the department.

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