

Address of Hon'ble Vice Chancellor, CSKHPKV, Palampur in Zonal Workshop of KVKS

The Chief Guest of today's inaugural function of 3 days Zonal Workshop of Krishi Vigyan Kendras, Zone-I, Dr.Gurbachan Singh, Chairman, ASRB, New Delhi, Guest of Honour - Dr. A.K. Singh, Dy. Director General, Agril. Extn., ICAR, Dr. P.K. Sharma, Vice-Chancellor, SKUAST, Jammu, Dr. Rajbir Singh, Director ATARI, Statutory Officers of University, ADGs Dr. Randhir Singh Poshwal and Dr. Chahal, PCs of all Krishi Vigyan Kendras, Scientists, Progressive Farmers of Zone-I of the country, students of the university, friends from media, ladies and gentlemen.

First of all, I personally & on behalf of the faculty, staff and students of the University extend a warm welcome to you all in this Workshop. I especially welcome Chairman, ASRB, Dr Gurbachan Singh and DDG, Dr A K Singh, who despite their busy schedule have spared time for all of us. Dev Bhumi Himachal Pradesh welcomes all the participants in this scenic beauty of Dhauladhar at Palampur. Himachal Pradesh is predominantly an agrarian state. Hill and mountaneous agriculture is its typical feature. Agriculture in Himachal Pradesh has traversed a long way during the past four decades. It contributes over 45% to the net state domestic product. Agriculture is the main source of income and employment in Himachal. Over 93% of the total 71.25 lakh population in Himachal depends directly upon agriculture which provides direct employment to 71% of its people.

Land Holdings Fragmentation

Himachal Pradesh is a land of small peasants but every farmer is a proud owner of land property and this is one such state of the Indian Union where very few persons are landless due to land reforms policies pursued by the Govt. of H.P. in the past. But with increasing population pressure, there has been continuous increase in the number of holdings. The total number of holdings at the state level increased from about 6.40 lakh during 1980-81 to above 9.60 lakh in 2010-11 showing around 67 per cent increase. Contrary to this, the area operated under different holdings increased marginally by about 3 per cent over the period. During this period, the number as well as area operated under marginal and small holdings showed marked increase while the number as well as area operated by the medium and large holdings decreased clearly showing the perpetual sub-division and fragmentation of medium and large holdings into marginal and small holdings. At the State level, average size

of holding which was 1.54 ha (1980-81) got reduced to 1.04 ha (2010-11). Due to lack of effective checks on subdivision of holdings and intense attachment of people to landed property. There is exorbitant proliferation of marginal and small holdings in the state. In most of the districts, the area under marginal holdings has reduced to even less than half a hectare making them non-viable 'toy farms'. The non-viable farm also encouraged rural migration and absentee land ownership. Therefore, the small and fragmented holdings have become main issue of concern in the recent years. This underlines the need to frame an effective land reform policy to check the subdivision of agricultural land.

Agriculture Food Production Scenario

The growing unviability of landholdings, almost stagnant productivity of traditional crops, livelihood security concerns, increasing incomes, changing consumption patterns and availability of newer technological options have tempted the farmers to shift to new crops in the state. The main cereals grown are wheat, maize, rice and barley. Although the state is deficit in food grains, it has gained tremendously in other spheres of agricultural production such as seed-potato, ginger, off- season vegetables, vegetable seeds, mushrooms, chicory seeds, hops, olives and fig especially vegetables and seed potato which is disease free and good quality, are providing a good source of income to the farmers.

During the last 65 years, since the beginning of 1st Five Year Plan there has been tremendous progress in agriculture production. Food grains production has increased from 2.0 lakh tonnes in 1951-1952 to 16.20 lakh tonnes in the Year 2014-2015. Maize is the major crop of the state. The production of maize, which was 0.67 lakh tonnes during 1951-1952 has gone up to 7.24 lakh tonnes in the year 2014-2015. The production of rice has gone up from 0.28 lakh tonnes in 1951-52 to 1.1 lakh tonnes in 2014-15. The production of wheat has attained a level of 7.9 lakh tonnes in 2014-2015 against 0.61 lakh tonnes during 1951-1952. Similarly, vegetable production has increased 64 times from 0.25 lakh tonnes during 1951-1952 to 16 lakh tonnes during 2014-2015. The production of ginger in 1951-1952 was 1.24 thousand tonnes which has increased to 4.00 thousand tonnes in 2014-15. The production of potato was 1.60 thousand tonnes in 1951-1952 and 190.50 thousand tonnes in 2014-2015, a record 119 folds raise over 6.5 decades.

At the state level, maize and wheat are the two predominant cereal crops accounting for 31.41 per cent and 37.48 per cent of the total 9.46 lakh ha cropped area, respectively. The

area under paddy has decreased in all the major producing districts due to allocation of more irrigated area to vegetable crops. The area under barley is around 23,000 ha and pulses 30,750 ha which has also declined considerably, showing the marginalization of these crops in hill farming.

Adoption of High Yielding Varieties

Despite this, there has been appreciable adoption of high yielding varieties (HYV) of crops. At the state level, the area under HYV of maize, paddy and wheat increased considerably from 1980-81 onwards. As of today, the area under HYVs of maize, paddy and wheat accounts for more than 96%. This has been made possible due to KVKs established & strengthened by the ICAR throughout the State except in 4 districts.

It needs to be mentioned here that the farmers, no doubt, are mostly using HYV seeds of maize, paddy and wheat but there has been no remarkable improvements in the production and productivity of crops, which is around 1.5 t/ha in maize compared to almost ½ that of the national average. The main reasons are the lack of assured irrigation, use of hybrid/improved seeds of varieties not tested or recommended by the University, low use of inputs, disease/pest attacks, and low use of recommended cultural practices and vagaries of aberrant weather. Keeping this in view, there is a need to design appropriate strategy with respect to testing, recommendation and seed quarantine in the state so that farmers could be saved from the high risks emanating from spurious farm technology. Owing to marginal & small holding nature of farming introduction of “House Hold Gardening” in these areas could be initiated.

Vegetables Revolution in H.P.

During the last two decades (2000 onwards) Himachal Pradesh has made discernible progress in the production of vegetable crops. The production of vegetables in the state has reached to a record level of 16.00 lakh tonnes during 2014-2015. The major breakthrough came after 1985 when the vegetable production witnessed tremendous increase. This increase was attributed to area expansion as a result of major emphasis accorded by the Govt. of H.P. to implementation of minor irrigation schemes in different parts of the state during Seventh Plan (1985-86 to 1990-91). Further, the introduction and adoption of new hybrids of vegetable crops by the farmers fuelled high growth in vegetable production particularly in Mid-Hill regions of the state. During the period 1990-91 to 2012-2013, the productivity of vegetable crops increased significantly from 15.9 t/ha to 19.0 t/ha by 19 percent. Most of these crops are off-season in nature fetching lucrative returns to farmers. This clearly shows that Himachal Pradesh enjoys comparative advantage in the production of vegetable crops

over plains producing these when not available in the plains. However, commercial production of vegetable crops has remained confined to few valley areas that need to be expanded in other less developed areas by creating necessary backward and forward linkages through strengthening of existing KVKs & opening new in area/districts left over. Of late, Himachal Pradesh has emerged as the second largest State in the area of protected cultivation of high value cash vegetable crops, flowers and medicinal and aromatic plants. The farmers of the State have adopted protected cultivation on commercial scale and are earning lucrative returns.

Fruits of Himachal

Apple is the principal cash crop of the state grown principally in seven districts namely Shimla, Kinnaur, Kullu, Mandi, Chamba and some parts of Sirmaur and Lahaul-Spiti with an average annual production of 5 lakh tonnes and per hectare production of 8 to 10 tonnes. The apple cultivation constitute 49 per cent of the total area under fruit crops and 85% of total fruit production in the state with an estimated economy of ₹3500 crore. Apples from Himachal are exported to other States and even other countries. As of today, the total area under apple cultivation is 1.04 lakh hectares. Special efforts are being made to promote cultivation of new crops like olives, figs, hops, mushrooms, flowers, pistachio nuts, sarda melon and saffron. Himachal has earned the name of the 'Apple State of India'.

Livestock status

So far livestock are concerned, livestock production is an integral part of farming in all parts of Himachal Pradesh. There is also complementary relationship between cropping system and livestock production system. The total population of livestock at the state level increased from 47.95 lakh in 1977 to 52.16 lakh. The increase was higher in buffalo population than cattle. Moreover, goat population increased while there was marginal increase in sheep population. The density of livestock population was less than 1 per hectare of total geographical area, but the density of population on operational holdings came out to be around 5 animals per hectare.

There has been impressive growth in the production of milk that increased from about 2.8 lakh tonnes in 1975-76 to 11.4 lakh tonnes in 2012-13. This has been due to the adoption of State Govt. Breeding Policy for cattle & buffalo 2002-03 which aimed to upgrade local hilly non-descriptive cows with Jersey bulls & maintaining exotic inheritance at 50% level.

However, due to faulty policy the non-descriptive indigenous hilly cows component was reduced to bare minimum 3% in 6th & 7th generation. This led to reduction of indigenous cattle population from 15.5 lakh to 11.5 lakh over a decade period. Secondly due to repeat breeding & failed reproductive potential of cows resulted in their abandoning as stray animals on roads. Hence, to conserve the local germplasm and bring back the unproductive cows to milking stage, establishment of Cattle Breeding Centre is the priority of the State Govt. and this Vishvavidyalaya. The production of eggs has also increased significantly due to increase in poultry population. The production of wool and meat showed relatively less growth, which may be due to restrictive forest policy and shrinkage in grazing facilities to pastoralists over the years. There is much scope to develop livestock sector in the state due to vast forest/pastures and congenial climatic conditions for rearing crossbred animals, sheep and goats, angora rabbits and rare animals like Yak and Pashmina goats (only found in hills).

Rainfed Agriculture: The cause of concern

Over and above the very nature of rainfed agriculture of hilly and mountainous region of the state is a great challenge. Only 19% of the total cultivated area has assured irrigation despite the fact that five major rivers of the country originating in the state and irrigating land across international borders. The main sources of irrigation are Kuhls (small water channels) fed from perennial or seasonal springs. Well irrigation is possible in some areas near the plains. Lift irrigation is another source of irrigation. Efforts are needed to make use of available water through lifted irrigation and other means.

Low fertilizer consumption and scope of Organic Farming

After irrigation, fertilizer is the major ingredient of technological advancement in crop production. At the state level, the NPK consumption increased from 15 kg/ha in 1980-81 to 53 kg/ha during 2009-10. It has been observed that the major quantity of nutrient applied was in the form of nitrogenous fertilizers rather than balanced use of NPK nutrients. The low use of fertilizers and pesticides in the state indicate greater prospects for popularizing export oriented zero budgeted organic farming.

Farm Mechanisation in Hills

Farm mechanization has remained the major constraint in hill farming. There has been differential pattern of mechanization across different districts of the state depending upon the topography and level of development. The number of power operated cultivating implements

like cultivator, disc harrow, potato planter/digger, seed drills, seed/fertilizer drills, etc., have gained less popularity among the farmers as yet and their use also varied considerably and in accordance with the topography. This clearly shows low level of mechanization in agriculture of Himachal Pradesh. Therefore, there is a dire need to give due attention to develop low cost small machinery and implements suitable under hill farming conditions.

Accordingly, the main thrust areas identified for future agriculture development in the state include:

- Zero budgeted organic farming & its popularisation amongst the farmers.
- Enhancing irrigation facilities with lift irrigation & other means.
- Developing low cost small machinery & implements suitable under hill farming conditions.
- Conserving indigenous hilly cows germplasm & establishing cattle breeding centre to overcome problem of stray animals.
- Diversification & promotion of vegetable cultivation in areas not covered so far.
- Strengthening of existing KVKs & opening new in areas/districts for promoting vegetable cultivation.
- Enhancing income of self help groups through training in integrated farming system including dairy, mushroom cultivation, fish, bee-keeping etc. and marketing.
- Design appropriate strategy for testing, recommendation and quarantine of quality seed from unreliable sources.
- Enhancing productivity of cereals, pulses and oilseed crops.
- Promotion of integrated cultivation & house hold gardening due to large number of marginal & small holdings.
- Suggestion to policy makers to frame an effective land reform policy to check fragmentation of land holding.

I hope the deliberations will be fruitful in this three days' workshop.

I, once again welcome our Chief Guest and other participants present in the inaugural session of the workshop. Wish you all a comfortable stay & enjoyable event.

“Bharat Mata Ki Jai”

Jai Himachal.