

1. AGRICULTURE AND ALLIED ACTIVITIES

Outlay – Rs.506.40 crore

1.1 CROP HUSBANDRY

Outlay – Rs.210.62 crore

1.1.1 Punjab's economy is dominantly agrarian. The share of agriculture in State's Gross State Domestic Product is 20%. Punjab state is pioneer in the production of food grains. Agriculture in Punjab is highly intensive in terms of land, capital, energy, nutrients, agriculture inputs, machinery, irrigation and an enthusiastic farming community. The status of agriculture in Punjab is as under:-

- Against a total geographical area of 50.33 lac hectares, the State has 41.98 lac hectares (84%) under cultivation. The cropping intensity is around 189% with over 98% of the cultivable area being under assured irrigation.
- The State produces 19% of the country's wheat, 11% of rice and 5% cotton and contributes significantly to the Central Pool with about 45% wheat and 30% rice.
- Against the national average of 2240 kg/ha, Punjab's rice productivity is 3828 kg/ha. In wheat, against the national average of 2938 kg/ha, Punjab's productivity is 4693 kg/ha.
- Fertilizer consumption at 237 kg/ha is almost 1.76 times higher than the national average of 135 kg/ha.
- The State's farm economy is highly mechanized, 18% of the country's tractors being in Punjab.
- During 2011-12 production of paddy was 157 lac MT of which 120 lac MT was procured.
- During Rabi 2011-12, the State produced 170 lac MT of wheat and procured 129 lac MT.
- The MSP for wheat which was Rs.1120 and Rs.50 as bonus per quintal for the marketing season 2011-12 is enhanced to Rs.1285/- for market season 2012-13.

1.1.2 Lately, agricultural activities have begun to show signs of fatigue. Today, Punjab is at the crossroads, as the existing production pattern and marketing systems are out of tune with the immediate and long-term supply and demand situation in both national and international markets. A package of dynamic, pro-active and responsive policies and action programmes are required to revive Punjab's agriculture, so as to meet the increasing pressures of free trade, liberalization and globalization. During the year 2011-12, the main emphasis was

given on increasing the productivity/production of various crops particularly cotton, maize, oilseeds, pulses etc. so that the damage to our natural resource base due to monoculture of wheat-paddy crop rotation could be checked.

1.1.3 In the meetings of National Development Council (NDC), it was resolved that agricultural development strategies must be reoriented to meet the needs of the farmers and called upon the Central and the State Governments to evolve a strategy to rejuvenate agriculture and increase their investments in the Agriculture & Allied sectors.

1.1.4 In order to plan and fund agriculture infrastructure on a nationally normative standard and scale across agriculture and allied sectors in the entire country in an integrated manner under one scheme, National Agriculture Infrastructure and Assets Development Programme (NAIADP) is proposed to be implemented during 12th Five Year Plan. A part of the funding under NAIADP is linked to adoption of reforms plan by the States.

1.1.5 Against an expenditure of Rs.739.10 crore during the 11th Five Year Plan, an outlay of Rs.1412.76 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.74.45 crore during 2011-12, an outlay of Rs.210.62 crore is provided in the Annual Plan 2012-13.

AGRICULTURE

Outlay – Rs.169.82 crore

1.1.6 To sustain the development of agriculture in the State, the following major schemes/programmes would be taken up during 12th Plan period:-

State Level Schemes

Ongoing schemes

AGR-01/3 Macro Management Work Plan for Agriculture Department (90:10)

Outlay – Rs.4.50 crore

1.1.7 Macro Management programme accords greater flexibility to state governments to implement programmes on the basis of regional priorities. The main activities that shall be included in the work plan for the year 2012-13 are:

- (i) Cereal Development Programme;
- (ii) Integrated Nutrient and Pest Management;
- (iii) Promotion of Agricultural Mechanization;
- (iv) Sustainable Development of Sugarcane based on cropping system areas.

1.1.8 Against an expenditure of Rs.42.28 crore as 90% Government of India's share and Rs.4.83 crore as 10% state share during the 11th Plan, an outlay of Rs.180.00 crore as 90% Government of India share and Rs.20.00 crore as 10% state share has been provided in the 12th Five Year Plan. Against an expenditure of Rs.15.30 lac as 90% Government of India's share and Rs.1.70 lac as 10% state share during 2011-12, an outlay of Rs.40.50 crore as 90% Government of India's share and Rs.4.50 crore as 10% state share is provided in the Annual Plan 2012-13.

**AGR-02/4 Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)
(75:25)**

Outlay – Rs.1.80 crore

1.1.9 The pulses programme previously a component of this scheme has been transferred to National Food Security Mission (NFSM) from the year 2010-11. The main objective of the scheme is to increase the productivity of oilseeds and provide disease free quality seeds and to bring more area under oilseeds and maize crops by organizing farmers training camps and demonstrations, so as to promote diversification from the traditional rice, wheat system. The scheme is being implemented in all the districts of the state. Priority is given to small and marginal farmers.

1.1.10 Against an expenditure of Rs.3.57 crore as 75% Government of India's share and Rs.1.18 crore as 25% state share during the 11th Plan, an outlay of Rs.21.00 crore as 75% Government of India share and Rs.7.00 crore as 25% state share has been provided in the 12th Five Year Plan. An outlay of Rs.5.40 crore as 75% Government of India's share and Rs.1.80 crore as 25% state share is provided in the Annual Plan 2012-13.

AGR-03/5 Support to State Extension Programme (90:10) (CS-Direct Release)

Outlay – Rs.2.50 crore

1.1.11 The major objectives of the scheme are reforming public sector extension, promoting private sector to complement/supplement the public extension system and augmenting the media & information technology for providing extension services. The scheme is being implemented through state level and district level registered societies.

1.1.12 Against an expenditure of Rs.7.96 crore as 90% Government of India's share and Rs.2.32 crore as 10% state share during the 11th Plan, an outlay of Rs.112.50 crore as 90% Government of India's share and Rs.12.50 crore as 10% state share has been provided in the 12th Five Year Plan. An outlay of Rs.22.50 crore as 90% Government of India's share and Rs.2.50 crore as 10% state share is provided in the Annual Plan 2012-13.

AGR-04/6 Intensive Cotton Development Programme (75:25)

Outlay – Rs.2.50 crore

1.1.13 The objective of the scheme is to increase the production and productivity of cotton in the state especially in the cotton belt of Ferozepur, Faridkot, Mukatsar, Moga, Bathinda, Sangrur and Mansa. Various incentives such as distribution of certified seed, training and demonstration on latest crop production technology, use of pheromone traps, NPV (Nuclear Poly-Hydroses Virus), IPM (Integrated Pest Management), Plant Protection equipment (manually operated sprayers and dusters) and tractor mounted sprayers etc. will be provided to the farmers.

1.1.14 Against an expenditure of Rs.3.34 crore as 75% Government of India's share and Rs.1.11 crore as 25% state share during the 11th Plan, an outlay of Rs.30.00 crore as 75% Government of India's share and Rs.10.00 crore as 25% state share has been provided in the 12th Five Year Plan. Against an expenditure of Rs.98.14 lac as 75% Government of India's share and Rs.32.50 lac as 25% state share during 2011-12, an outlay of Rs.7.50 crore as 75% Government of India's share and Rs.2.50 crore as 25% state share is provided in the Annual Plan 2012-13.

AGR-05/21 Modified National Agriculture Insurance (50:50)(CS-Direct Release)

Outlay – Rs.5.00 crore

1.1.15 Ministry of Agriculture (Department of Agriculture & Cooperation) GoI has launched Modified National Agriculture Insurance Scheme (MNAIS) to insulate farming community against risks. GoI has selected 50 districts of the country to implement the scheme on pilot basis during 2010-11. Three districts Gurdaspur, Hoshiarpur and Ropar in Punjab have been recommended for the implementation of the scheme on pilot basis.

1.1.16 The scheme aims at sustainable production in agriculture sector, thereby ensuring food security, crop diversification and enhancing growth and competitiveness from agriculture sector besides protecting farmers from production risks.

The scheme has the following main features:-

- (1) Actual premiums will be paid for insuring crops and hence claims liability will be on insurer;
- (2) Unit area of insurance for major crops is village/village panchayat;
- (3) Indemnity amount will become payable, for prevented sowing/planting risks and for harvest losses due to cyclones;
- (4) On account payment upto 25% of likely claim under MNAIS will be released as advance, for providing immediate relief to farmers;

- (5) Uniform seasonality norms will be applicable for both loanee and non-loanee farmers;
- (6) More proficient basis for calculation of threshold yield (average yield of last seven years excluding upto two years of declared natural calamity) will be applicable; and
- (7) Minimum indemnity level in case of MNAIS will be 90%.

1.1.17 Loanee farmers will be insured under compulsory category while non-loanee farmers will be insured under voluntary category. The funding of the scheme shall be done through contribution from Centre, State and Beneficiary in the ratio 25:25:50.

1.1.18 The scheme was introduced in the Annual Plan 2011-12 but could not implemented. An outlay of Rs.25.00 crore each as 50% Government of India share and as 50% state share has been provided in the 12th Five Year Plan and an outlay of Rs.5.00 crore each as 50% Government of India's share and as 50% state share is provided in the Annual Plan 2012-13.

AGR-06/9 Rashtriya Krishi Vikas Yojana (RKVY) (ACA)

Outlay – Rs 137.00 crore

1.1.19 Concerned with the slow growth in the agriculture and allied sectors, the National Development Council (NDC), in its meeting held on 29th May, 2007 resolved that an Additional Central Assistance Scheme namely Rashtriya Krishi Vikas Yojana (RKVY) be launched to incentivise States to draw up plans for their agriculture sector more comprehensively by taking agro-climatic conditions, natural resource issues and technology into account, and integrating livestock, poultry and fishery.

The main objectives of the scheme are:

- (i) To incentivise the states so as to increase public investment in agriculture and allied sectors.
- (ii) To provide flexibility and autonomy to states in the process of planning and executing agriculture and allied sector schemes.
- (iii) To ensure the preparation of agriculture plans for the districts and the states based on agro-climatic conditions, availability of technology and natural resources.
- (iv) To ensure that the local needs/crops/priorities are better reflected in the agricultural plans of the states.

- (v) To achieve the goal of reducing the yield gaps in important crops through focused interventions.
- (vi) To maximize returns to the farmers in agriculture and allied sectors.
- (vii) To bring about quantifiable changes in the production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner.

The components for the RKVY cover the following:-

- a) Integrated development of major food crops such as wheat, paddy, coarse cereals, minor millets, pulses, oilseeds
- b) Agriculture mechanization
- c) Activities related to enhancement of soil health
- d) Development of rain fed farming systems in and outside watershed areas, as also integrated development of watershed areas, wastelands, river valleys
- e) Support to state seed farms
- f) Integrated Pest Management schemes
- g) Encouraging non-farm activities
- h) Strengthening of market infrastructure and marketing development
- i) Strengthening of infrastructure to promote extension services
- j) Activities relating to enhancement of horticultural production and popularization of micro irrigation systems
- k) Animal husbandry and fisheries development activities
- l) Special schemes for beneficiaries of land reforms
- m) Undertaking concept to completion projects
- n) Grant/support to the state government institutions that promote agriculture/horticulture
- o) Study tours of farmers
- p) Organic and bio-fertilizers
- q) Innovative schemes

1.1.20 The funds are granted under two streams. Stream-I is project based and Stream-II covers conventional schemes. Under the scheme, a State Level Sanctioning Committee under the chairmanship of Chief Secretary is constituted. At least 75% of the allocated amount shall be proposed under Stream-I for specific projects. The amount under Stream-II, is available for strengthening the existing state sector schemes and filling the resource gaps. Depending upon the state's needs, a state may choose to use its entire allocated

RKVY funds under the Stream-I only. In that event 100% of the RKVY funds can be utilized for the Stream-I. However, the reverse is not permissible, that is, a state cannot choose to lower its Stream-I allocation below 75%. The allocation by the Central Government to each of the eligible states is based on the following parameters and weights:

SN	Parameter	Weight
1.	The percentage share of net un-irrigated area in a state to the net un-irrigated area of the eligible states. Eligible states are those states that become eligible to avail of the RKVY based on their baseline level of expenditure under the State Plan and preparation of District and State Agricultural Plans.	20%
2.	The projected growth rates to a base year GSDP for Agriculture and allied sectors (say, 2005-06) to be applied to the GSDPs to be attained by the end of the 11 th Plan by the States. The parameters to be set in terms of inter state proportion of these GSDPs projected to be reached by the state by the end of the 11 th Plan.	30%
3.	Increase in the total Plan expenditure in Agriculture and allied sectors in the previous year over the year prior to that year.	50%

1.1.21 The condition for eligibility for the year 2012-13 is that the percentage of plan expenditure for 2011-12 in agriculture sector has to be more than the average plan expenditure in this sector during the previous three years. The figures are as follows:-

(Rs.in crore)

Year	Plan Size	Total Plan Exp	Exp on Agriculture Sector	% Exp on Agriculture Sector	Average of expenditure of three years
2003-04	2822.00	1585.81	65.42	4.13	
2004-05	3479.80	1955.93	51.55	2.64	
2005-06	3550.00	3754.67	69.97	1.86	2.88
2006-07	4000.00	5751.83	142.99	2.49	2.33

Year	Plan Size	Total Plan Exp	Exp on Agriculture Sector	% Exp on Agriculture Sector	Average of expenditure of three years
2007-08 (Excluding RKVY)	5111.00	4986.00	142.64	2.86	2.40
2008-09 (Excluding RKVY)	6110.00	6837.48	165.25	2.41	2.59
2009-10 (Excluding RKVY)	8535.00	4900.52	137.05	2.80	2.69
2010-11 (Excluding RKVY)	9080.00	8146.16	271.88	3.33	2.84
2011-12 (Excluding RKVY)	11420.00	7308.31	41.99	0.57 (Required 2.85%)	2.23 (Required 2.99%)
2012-13 (Excluding RKVY)	13863.00		441.48 (3.18%) (Outlay)		

1.1.22 The State was required to spend at least 2.86% (i.e. more than 2.85% average expenditure of 3 years (from 2008-09 to 2010-11) of plan expenditure on Agriculture and Allied Sectors during the year 2011-12 in order to become eligible for the year 2012-13. Though the state has not become eligible for 2012-13, it has been granted exemption for one year subject to the condition that it would maintain the benchmark of minimum level of expenditure during 2012-13 had it been eligible during 2011-12.

1.1.23 Against an expenditure of Rs 417.26 crore during the 11th Five Year Plan, an outlay of Rs 600.00 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.69.44 crore during 2011-12, an outlay of Rs.137.00 crore is provided in the Annual Plan 2012-13.

AGR-07/8 Setting up of an Institution for Management of Agriculture Extension

Outlay – Rs.5.00 crore

1.1.24 An ACA of Rs.5.00 crore was provided by Government of India during 2007-08 for setting up of 20 Farmers Training Centres at block level. However, it was decided to widen the scope of the scheme and establish an institution for management of agriculture extension at Mohali at a total cost of Rs.15.00 crore. This institute would house the offices of agriculture and allied departments and a high tech training centre. ACA of Rs.5.00 crore has been utilized for establishment of a high-tech training centre for farmers at Mohali to help in upgrading the livelihood in rural areas. Balance cost of Rs.10.00 crore would be met equally by the state government and by the administrative department out of its own sources.

1.1.25 The main characteristics/features of this scheme are as under:-

- (i) To impart training through Audio Video techniques.
- (ii) To provide latest electronic technical & computer net working facilities.
- (iii) To get in touch with world level & other literature.
- (iv) To provide other relevant facilities to workers/farmers.

1.1.26 Against an expenditure of Rs.5.00 crore during the 11th Five Year Plan, an outlay of Rs.5.00 crore has been provided in 12th Five Year Plan as well as for the Annual Plan 2012-13.

AGR-08/10 Scheme for Subsidy on Replacement of Wheat Seed

Outlay – Rs.5.00 crore

1.1.27 The state plan scheme was included in the Annual Plan 2008-09. Government of India under National Food Security Mission has selected seven districts viz. Amritsar (including Tarn Taran), Bathinda, Gurdaspur, Ropar (including Mohali), Ferozepur, Sangrur (including Barnala) & Hoshiarpur. In these districts, certified seed of wheat is to be provided @ Rs.700/- per quintal. Apart from these selected districts under NFSM, the subsidy on certified wheat seed is provided @ Rs.500/- per quintal or 25% subsidy under Macro Management Work Plan. During the year 2008-09, the state decided to double the Seed Replacement Rate (SRR). To bring all the districts at par with same rate, subsidy @ Rs.700/- per quintal is required to be provided by the state government. It is proposed to distribute 71429 quintal of wheat seed during the year 2012-13.

1.1.28 Against an expenditure of Rs.3.75 crore during the 11th Five Year Plan, an outlay of Rs.25.00 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.2.50 crore during 2011-12, an outlay of Rs.5.00 crore is provided in the Annual Plan 2012-13.

AGR-09/13 Scheme for Management and Creation of Infrastructure at Government Seed Farms

Outlay – Rs.1.00 crore

1.1.29 Production of certified, foundation and hybrid seeds of oilseeds and pulses is necessary to increase the present level of production. The frontline demonstration of newly developed machinery is necessary to educate the farmers which is possible only at Government Seed Farms. There are 8 Government Seed Farms measuring 277.17 acre area. Keeping in view the important role of these farms, two more farms have been allocated to the Agriculture Department which are situated at Ranian & Bhadru (1225 acre) and Sheron Bagha (113 acre). To make these two farms operational and others profitable, strengthening and creation of infrastructure is proposed to be undertaken during 2012-13.

1.1.30 Against an expenditure of Rs.1.30 crore during the 11th Five Year Plan , an outlay of Rs.5.00 crore has been provided in 12th Five Year Plan. An outlay of Rs.1.00 crore has been provided in Annual Plan 2012-13.

AGR-10/15 Scheme for Distribution of Fertilizer

Outlay – Rs.5.00 crore

1.1.31 Punjab State is the major consumer of chemical fertilizers. During 2009-10, the scheme was incorporated with an objective to ensure the availability of fertilizer to farmers at affordable prices. This objective can be fulfilled only if the notified prices of fertilizer are affordable and fertilizers are easily available during peak demand period in all parts of the country. The phosphoric and potassic fertilizers are decontrolled and there is no restriction on movement and sale of these fertilizers by manufacturers/importers to ensure adequate availability of decontrolled fertilizers. Moreover,Punjab State is away from the manufacturing units/ports and it takes long time to reach the state. Most of the quantity of fertilizer is needed within a short period; therefore, there is need for pre-positioning of fertilizers to different parts in the State.

1.1.32 Against an expenditure of Rs.5.00 crore during the 11th Five Year Plan, an outlay of Rs.25.00 crore has been provided in 12th Five Year Plan and an outlay of Rs.5.00 crore is provided in the Annual Plan 2012-13.

New Schemes

AGR-12 National Mission on Food Processing (75:25)

Outlay: Rs.50.00 lac

1.1.33 Government of India has decided to transfer the schemes of National Mission on Food Processing to the state governments. For this purpose, a new centrally sponsored

scheme(75:25) “National Mission on Food Processing” has been included in the 12th Five Year Plan. To implement this scheme the state government vide its order dated 16/3/2012 has created a new Department of Food Processing.

1.1.34 During first year, states will implement the following components:-

- (i) Technology upgradation/setting up/modernization of food processing industries;
- (ii) Cold chain, value addition, preservation and infrastructure for non-horticultural produce;
- (iii) Modernisation of abattoirs;
- (iv) Human resource development;
- (v) Scheme for promotion of food processing sector.

1.1.35 An outlay of Rs.7.50 crore as 75% Government of India’s share and Rs.2.50 crore as 25% state share has been provided in the 12th Five Year Plan. An outlay of Rs.1.50 crore as 75% Government of India’s share and Rs.50.00 lac as 25% state share is provided in the Annual Plan 2012-13.

AGR-13 National Agriculture Infrastructure and Assets Development Programme(NAIADP) (ACA)

Outlay: Rs.1.00 lac

1.1.36 A new scheme is being introduced in the 12th Five Year Plan. This scheme will be funded by Govt. of India through Additional Central Assistance(ACA). The NAIADP aims at contributing to the national objective of achieving 4% annual growth in the agriculture sector by assisting development of infrastructure in agriculture and allied sectors in a planned manner across the entire country as per national standards of agri-infrastructure.

1.1.37 An outlay of Rs.500.00 crore has been provided in the 12th five Year Plan and a token provision of Rs.1.00 lac is provided in the Annual Plan 2012-13.

HORTICULTURE

Outlay – Rs.40.80 crore

1.1.38 Horticulture which includes fruits, vegetables, root and tuber crops, mushroom, floriculture, medicinal and aromatic plants etc. is very significant in improving land use, promoting crop diversification, generating employment and above all providing nutritional security to the people. The main schemes/programmes included in the Annual Plan 2012-13 are as under:-

Ongoing schemes

HORT-01/5 State Share of National Horticulture Mission (85:15) (CS-Direct release)

Outlay – Rs.20.25 crore

1.1.39 The National Horticulture Mission was started as 100% Government of India's Programme during 2005-06, but from 2007-08, the Centre and State contribution for NHM has been envisaged to be in the ratio of 85:15. The main objectives of the mission are:

- (1) To provide holistic growth to the horticulture sector through an area based regionally differentiated strategies which include research, technology promotion, extension, post harvest management, processing and marketing, in consonance with comparative advantage of the state and its climate feature.
- (2) To enhance horticulture production, improve nutritional security and income support to farm households.
- (3) To promote, develop and disseminate technologies, through a seamless blend of traditional wisdom and modern scientific knowledge.
- (4) To create opportunities for employment generation for skilled and unskilled persons, especially unemployed youth.

1.1.40 Against an expenditure of Rs.162.45 crore as 85% Government of India's share and Rs.18.36 crore as 15% state share during the 11th Plan, an outlay of Rs.453.33 crore as 85% Government of India share and Rs.80.00 crore as 15% state share has been provided in the 12th Five Year Plan. An expenditure of Rs.46.49 crore was incurred as 85% Government of India's share during 2011-12. The state share could not be released during 2011-12 due to technical problems & the same has been provided in 2012-13. An outlay of Rs.68.00 crore as 85% Government of India's share and Rs.20.25 crore as 15% state share including unspent balance of Rs.8.25 crore of previous year is provided in the Annual Plan 2012-13.

HORT-02/7 Catalytic Development Programme (36:26:38) (GoI: State: Beneficiary)

Outlay – Rs.75.00 lac

1.1.41 In Punjab, Sericulture is under administrative control of Directorate of Horticulture Punjab, Chandigarh. The State produces Bivoltine Silk. The popular silk work races are NB-4 D2 x SH6 and it's reciprocal. The agro-climatic condition of some pockets of the state is very congenial and conducive for cultivation of mulberry silk. A centrally sponsored project namely 'Catalytic Development Programme' was implemented during 2008-09. The funding of the scheme is met from contribution from Central Silk Board, beneficiary & state share in the ratio of 38:26:36. The broad objectives of the project are to

bring horizontal and vertical growth in cocoon production in the cluster, to promote bivoltine sericulture and sericulture in cluster and to harness the available natural resources viz waste/degraded land for development of viable and sustainable sericulture.

1.1.42 Against an expenditure of Rs.42.54 lac as 38% Government of India's share and Rs.15.45 lac as 26% state share during the 11th Plan, an outlay of Rs.1.83 crore as 38% Government of India's share and Rs.1.25 crore as 26% state share has been provided in the 12th Five Year Plan. An outlay of Rs.44.00 lac as 38% Government of India's share and Rs.75.00 lac as 26% state share (including unspent balance of previous year) is provided in the Annual Plan 2012-13.

HORT-03/1 Diversification of Agriculture through Development of Horticulture

Outlay – Rs.5.00 crore

1.1.43 The main objectives of the scheme are-

- (1) To bring an additional area of 20,000 hectares and 4000 hectares under fruits during 12th Five Year Plan and 2012-13 respectively.
- (2) To strengthen the nursery production work for raising 50 lac plants for new plantation during 12th Five Year Plan and 10 lac nursery plants during 2012-13.
- (3) To popularize spawn production and mushroom cultivation in the state.
- (4) To strengthen the govt. gardens, nurseries, govt. potato seed farms, landscape units and mushroom laboratories.

1.1.44 Against an expenditure of Rs.14.15 crore during the 11th Five Year Plan, an outlay of Rs.30.00 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.1.67 crore during 2011-12, an outlay of Rs.5.00 crore is provided in the Annual Plan 2012-13.

HORT-04/2 Demonstration-cum-Fruit Preservation Laboratories and Community Canning Centres

Outlay – Rs.40.00 lac

1.1.45 The objective of the scheme is to train and educate the fruit growers/public in latest techniques for the preservation and preparation of various products like squashes, jams, jellies and other canned products from fruits and vegetables. Six fruit preservation laboratories one each at Hoshiarpur, Abohar, Patiala, Amritsar, Ludhiana and Jalandhar and 14 community canning centres are functioning in the state. 6 more community canning centres are proposed to be set up in the 12th Plan period. In these units 88,000 Kg fruits will be processed and 10,000 persons will be imparted training during 2012-13.

1.1.46 Against an expenditure of Rs.1.28 crore during the 11th Five Year Plan, an outlay of Rs.2.00 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.22.90 lac during 2011-12, an outlay of Rs.40.00 lac is provided in the Annual Plan 2012-13.

HORT-05/3 Transmission of Technology & Training in Horticulture Practices

Outlay – Rs. 40.00 lac

1.1.47 The objective of the scheme is to provide current technical know-how relating to horticulture and vegetable programme and scientific use of horticulture inputs like seeds, fertilizers, plant protection measures etc.

1.1.48 To meet the challenges of WTO, the following specific programmes would be taken up:-

(1) **Increasing productivity of citrus fruits** - The citrus orchards are severely affected by a phytophthora fungal disease and the fungicide used for its remedy is very costly. The farmers are reluctant to use it. Therefore, incentive @ Rs.5000/- per ha. for 200 ha. would be given. Work on disease free raising of nursery fruit plants in the polythene bags by disinfecting soil with formalin and solarization method will also be undertaken.

(2) **Vegetable production** – With the increase in population, there is a rising demand of fresh Vegetables. The emphasis is being given to increase quality yield per unit area. To make the farmers aware, demonstration will be given with the financial assistance of Rs.2000/- per plot. During the financial year 2012-13, 300 progressive farmers will be covered.

(3) **Training Camps** - State level show/district & village level farmer training camps will be held for horticulturists & vegetable growers. International, National/State Level tour of farmers will be arranged.

1.1.49 Against an expenditure of Rs.1.52 crore during the 11th Five Year Plan, an outlay of Rs.2.50 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.27.06 lac during 2011-12, an outlay of Rs.40.00 lac is provided in the Annual Plan 2012-13.

HORT-06/6 Strengthening of Citrus Estates

Outlay – Rs.10.00 crore

1.1.50 Five citrus estates were established in the state at Badal, Abohar, Tahliwala Jattan, Chunni Kalan (Bijwara) and Bhunga (Hoshiarpur) to facilitate the production and

marketing of Kinnow and other citrus varieties. The facilities like tree pruners, power sprayers, fruit graders, pre-cooling chambers and waxing of fruits etc. would be created in these estates.

1.1.51 Against an expenditure of Rs.20.50 crore during the 11th Five Year Plan, an outlay of Rs.50.00 crore has been provided in 12th Five Year Plan and an outlay of Rs.10.00 crore is provided in the Annual Plan 2012-13.

New Scheme

HORT-07 Establishment of Litchi & Pear Estates

Outlay – Rs.4.00 crore

1.1.52 At present total area under Litchi is about 1460 hac with the estimated production of 14600 ton. The average yield of Litchi is 10 MT/hac and it has the potential to improve yield and quality. The total area under litchi orchards in District Gurdaspur and Hoshiarpur is about 1250 hac. To improve the quality and productivity of litchi, it is proposed to establish one Litchi estate at Pathankot, which has as an area of 945 hac. distributed in 194 villages with 363 litchi growers.

1.1.53 At present total area under pear is about 2707 hac. With the estimated production of 60000 MT, the average yield of pear is about 22 MT/hac and it has the potential to improve yield and quality. The total area under pear orchards in District Amritsar and Tarn-tarn is about 1631 hac. To improve the quality and productivity of pear it is proposed to establish one pear estate at Amritsar, which has an area of 805 hac. and covers 117 villages, with 229 pear growers.

1.1.54 An outlay of Rs.10.00 crore has been provided in the 12th Five Year Plan and an outlay of Rs.4.00 crore is provided in the Annual Plan 2012-13.

Centrally Sponsored Schemes (100%)

CS(AGR)-06/1 Agricultural Census

Outlay – Rs.50.00 lac

1.1.55 This is a staff scheme. Under this scheme main characteristics of operational holdings are collected as per instructions of Government of India. The number of operational holdings (size/class wise) are also collected by conducting sample study after every five years.

1.1.56 Against an expenditure of Rs.1.20 crore during the 11th Five Year Plan, an outlay of Rs.2.50 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.30.08 lac during 2011-12, an outlay of Rs.50.00 lac is provided in the Annual Plan 2012-13.

CS(AGR)-07/5 Promotion and strengthening of agricultural mechanization through training, testing and demonstration

Outlay – Rs.1.25 crore

1.1.57 The main objectives of the scheme are design and fabrication of crop specific machines and equipment, matching implement/machines to improve efficiency and saving fuel, field demonstrations of these machines and dissemination of information to the farmers etc.

The scheme has the following components-

- (1) Demonstration of newly developed agricultural equipment.
- (2) Outsourcing of training through identified institutions.

1.1.58 Against an expenditure of Rs.41.46 lac during the 11th Five Year Plan, an outlay of Rs.6.25 crore has been provided in 12th Five Year Plan. An outlay of Rs.1.25 crore is provided in the Annual Plan 2012-13.

CS (AGR)-08/14 Popularization of Organic Farming in the State

Outlay - Rs.60.00 lac

1.1.59 Organic Farming is a production system, which avoid the use of synthetically manufactured fertilizers, pesticides and growth regulation and relies on crop rotation, crop residues, animal manures, legumes, green manures off-farm wastes and vermin-compost. There is a need to improve the quality alongwith further improvement in quantity. Quality produce is possible with the adoption of organic farming which not only helps in improving food quality but also helps in maintaining soil health. To popularize the organic farming emphasis would be laid on field demonstrations, farmer training camps and model organic farms.

1.1.60 Against an expenditure of Rs.15.84 lac during the 11th Five Year Plan, an outlay of Rs.3.00 crore has been provided in 12th Five Year Plan and an outlay of Rs.60.00 lac is provided in the Annual Plan 2012-13.

CS(Hort)-03/CS (AGR)-2 Crop Estimation Survey on Fruits, Vegetables and Minor Crops – Horticulture Department

Outlay – Rs.20.00 lac

1.1.61 This is a staff scheme. Under this scheme reliable statistics regarding area, yield and production of fruits, vegetables and minor crops are obtained by conducting crop cutting experiments. During 11th Five Year Plan, this scheme was run by two departments but from 12th Five Year Plan onwards the scheme would be run by Horticulture Department alone.

1.1.62 Against an expenditure of Rs.39.00 lac during the 11th Five Year Plan, an outlay of Rs.1.00 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.9.03 lac during 2011-12, an outlay of Rs.20.00 lac is provided in the Annual Plan 2012-13.

1.2 SOIL AND WATER CONSERVATION

Outlay – Rs. 83.95 crore

1.2.1 Out of the total geographical area of 50.36 lac hectares of the State, about 13 lac hectares (26%) is under various forms of degradation due to soil erosion in northern Punjab, water logging and salinization of soils in south-western Punjab. Approximately 70% area constituting the central Punjab faces ground water depletion. 112 out of 141 blocks have already been categorized as over-exploited or dark blocks. The present challenges are:

- (1) To control soil erosion in Kandi area and siltation of rivers & water bodies;
- (2) To increase productivity of rainfed areas through integrated watershed management, rainwater harvesting and ground water recharge;
- (3) Management & conservation of on-farm water to increase the water use efficiency;
- (4) Reclamation of degraded soils;
- (5) To propagate on-farm water conservation by replacing low-efficiency kutchra field irrigation channels with high efficiency underground pipeline system.
- (6) To create public awareness regarding the natural resource degradation and its management.

1.2.2 It is projected that by 2023 in central Punjab the water table depth will be below 70 feet in 59% area, below 100 feet in 34% area and below 130 feet in 7% area. Correspondingly in each district the percent area below 70 feet depth will be 100% in Moga and Sangrur, 80% in Patiala, 70% in Ludhiana, 60% in Kapurthala and Jalandhar.

1.2.3 Against an expenditure of Rs.47.83 crore during the 11th Five Year Plan, an outlay of Rs.266.35 crore has been provided in 12th Five Year Plan. Against an expenditure of Rs.4.03 crore during 2011-12, an outlay of Rs.83.95 crore is provided in the Annual Plan 2012-13. The physical target is 36800 ha.