

1. AGRICULTURE AND ALLIED ACTIVITIES

Outlay – ` 708.10 crore

1.1 CROP HUSBANDRY

Outlay – ` 280.87 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 (83%) 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 26% rice.
- Against the national average of 2372 kg/ha, Punjab's rice productivity is 3741 kg/ha. In wheat, against the national average of 3140 kg/ha, Punjab's productivity is 5097 kg/ha.
- Fertilizer consumption at 246 kg/ha is almost 1.71 times higher than the national average of 144 kg/ha.
- The State's farm economy is highly mechanized, 18% of the country's tractors being in Punjab.
- During 2012-13 production of paddy was 157 lac MT of which 128 lac MT was procured.
- During Rabi 2012-13, the State produced 180 lac MT of wheat and procured 129 lac MT.
- The MSP for wheat which was ` 1285 per quintal for the marketing season 2012-13 is enhanced to ` 1350/- for market season 2013-14 marketing season.

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 last years, the main emphasis has been 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 Against an expenditure of ₹ 739.10 crore during the 11th Five Year Plan, an outlay of ₹ 1412.76 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 210.62 crore during 2012-13, an outlay of ₹ 280.87 crore is provided in the Annual Plan 2013-14.

AGRICULTURE

Outlay – ₹ 241.02 crore

1.1.5 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 – ₹ 4.50 crore

1.1.6 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.

1.1.7 Against an expenditure of ₹ 42.28 crore as 90% Government of India's share and ₹ 4.83 crore as 10% state share during the 11th Plan, an outlay of ₹ 180.00 crore as 90% Government of India share and ₹ 20.00 crore as 10% state share has been provided in the 12th Five Year Plan.

Against an outlay of ₹ 40.50 crore as 90% Government of India's share and ₹ 4.50 crore as 10% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AGR-02/4 Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)
(75:25) *Outlay – ₹ 1.25 crore*

1.1.8 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. The pulses programme previously a component of this scheme has been transferred to National Food Security Mission (NFSM) from the year 2010-11.

1.1.9 Against an expenditure of ₹ 3.57 crore as 75% Government of India's share and ₹ 1.18 crore as 25% state share during the 11th Plan, an outlay of ₹ 21.00 crore as 75% Government of India share and ₹ 7.00 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 5.40 crore as 75% Government of India's share and ₹ 1.80 crore as 25% state share during 2012-13, an outlay of ₹ 3.75 crore as 75% Government of India's share and ₹ 1.25 crore as 25% state share is provided in the Annual Plan 2013-14.

AGR-03/5 Support to State Extension Programme (90:10) (CS-Direct Release)
Outlay – ₹ 2.50 crore

1.1.10 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.

1.1.11 Against an expenditure of ₹ 7.96 crore as 90% Government of India's share and ₹ 2.32 crore as 10% state share during the 11th Plan, an outlay of ₹ 112.50 crore as 90% Government of India's share and ₹ 12.50 crore as 10% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 22.50 crore as 90% Government of India's share and ₹ 2.50 crore as 10% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AGR-04/6 Intensive Cotton Development Programme (75:25)
Outlay – ₹ 2.50 crore

1.1.12 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.

1.1.13 Against an expenditure of ` 3.34 crore as 75% Government of India's share and ` 1.11 crore as 25% state share during the 11th Plan, an outlay of ` 30.00 crore as 75% Government of India's share and ` 10.00 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ` 7.50 crore as 75% Government of India's share and ` 2.50 crore as 25% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 5.00 crore

1.1.14 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.

1.1.15 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 up to 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 up to two years of declared natural calamity) will be applicable; and
- (7) Minimum indemnity level in case of MNAIS will be 90%.

1.1.16 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.

1.1.17 The scheme was introduced in the Annual Plan 2011-12 but could not implemented. An outlay of ` 25.00 crore each as 50% Government of India share and as 50% state share has been provided in the 12th Five Year Plan. Against an outlay of ` 5.00 crore as 50% Government of India's share and ` 5.00 crore as 50% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 200.00 crore

1.1.18 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.

1.1.19 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:-

- (i) Integrated development of major food crops such as wheat, paddy, coarse Cereals, minor millets, pulses, oilseeds
- (ii) Agriculture mechanization
- (iii) Activities related to enhancement of soil health
- (v) Development of rain fed farming systems in and outside watershed areas, as
- (vi) also integrated development of watershed areas, wastelands, river valleys
- (v) Support to state seed farms
- (vii) Integrated pest management schemes
- (vii) Encouraging non-farm activities
- (viii) Strengthening of market infrastructure and marketing development
- (ix) Strengthening of infrastructure to promote extension services
- (x) Activities relating to enhancement of horticultural production and popularization of micro irrigation systems
- (xi) Animal husbandry and fisheries development activities
- (xii) Special schemes for beneficiaries of land reforms
- (xiii) Undertaking concept to completion projects
- (xiv) Grant/support to the state government institutions that promote agriculture/horticulture
- (xv) Study tours of farmers
- (xvi) Organic and bio-fertilizers
- (xvii) 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 2013-14 is that the percentage of plan expenditure for 2012-13 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:-

(` 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*	5111.00	4986.00	142.64	2.86	2.40
2008-09*	6110.00	6837.48	165.25	2.41	2.59
2009-10*	8535.00	4900.52	137.05	2.80	2.69
2010-11*	9080.00	8146.16	271.88	3.33	2.84
2011-12*	11420.00	7388.01	42.11	0.57	2.23
2012-13* (Outlay)	13863.00		441.48	3.18	
2013-14 (Outlay)	15922.78		590.47	3.71	

*excluding RKVY

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 had not become eligible for 2012-13, it was 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 ₹ 417.26 crore during the 11th Five Year Plan, an outlay of ₹ 600.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 137.00 crore during 2012-13, an outlay of ₹ 200.00 crore is provided in the Annual Plan 2013-14.

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

Outlay – ₹ 5.00 crore

1.1.24 An ACA of ₹ 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 ` 15.00 crore. This institute would house the offices of agriculture and allied departments and a high tech training centre. ACA of ` 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.

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 ` 5.00 crore during the 11th Five Year Plan, an outlay of ` 5.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 5.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 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 @ ` 700/- per quintal. Apart from these selected districts under NFSM, the subsidy on certified wheat seed is provided @ ` 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 @ ` 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 2013-14.

1.1.28 Against an expenditure of ` 3.75 crore during the 11th Five Year Plan, an outlay of ` 25.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 5.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 25.00 lac

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). Strengthening of these farms is proposed to be undertaken during 2013-14.

1.1.30 Against an expenditure of ` 1.30 crore during the 11th Five Year Plan, an outlay of ` 5.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 1.00 crore during 2012-13, an outlay of ` 25.00 lac has been provided in Annual Plan 2013-14.

AGR-10/15 Scheme for Distribution of Fertilizer

Outlay – ` 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, the 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 ` 5.00 crore during the 11th Five Year Plan, an outlay of ` 25.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 5.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

New Scheme

AGR-23 Agriculture diversification in the State

Outlay: ` 10.00 crore

1.1.33 Punjab is an agriculturally rich community. Rice and wheat are two principle crops grown in the state for more than three decades now. The adoption of rice-wheat rotation has definitely improved the financial status of the farmers of the state. However, the same is responsible for degradation of natural resources particularly the underground water level which has fallen constantly over the years. To meet the challenging demands and supply of food products for the local market and need to revive our natural resources, the crop diversification would be

prompted in the state. For this purpose it is proposed to carry out the diversification programme for the following crops:-

Maize

The state proposes to increase the area under maize from 1.4 lakh ha to 5.5 lakh ha during the next 7-8 years. Subsidy on various inputs like plant protection equipments, pesticides, weedicides, supply of hybrids seeds, bed planters etc. would be provided.

Sugarcane:

To make sugarcane equally or more profitable than others crops, farmers would be encouraged to take up innovative technologies for sugarcane through various interventions like demonstration on intercropping single bed technique, farmer field schools, seed replacement programme, subsidy on agricultural implements etc.

Farm-forestry

Atleast 2 lakh ha area is proposed to be covered under farm forestry in Punjab on a rotation cycle of 8 years by planting fast growing species like eucalyptus, poplar, melia, gmelina etc.

Cotton

The promotion of cotton in the state is an integral part of crop diversification. Various interventions would be undertaken to popularize cotton in state viz. plant protection equipments, bio-pesticides, distribution of weedicides, Bt seeds.

1.1.34 In order to implement aforementioned interventions for all crops, an outlay of ₹ 10.00 crore is provided in the Annual Plan 2013-14.

HORTICULTURE

Outlay – ₹ 39.85 crore

1.1.35 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 2013-14 are as under:-

Ongoing schemes

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

Outlay – `15.00 crore

1.1.36 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.

1.1.37 Against an expenditure of `162.45 crore as 85% Government of India's share and `18.36 crore as 15% state share during the 11th Plan, an outlay of `453.33 crore as 85% Government of India share and `80.00 crore as 15% state share has been provided in the 12th Five Year Plan. Against an outlay of `68.00 crore 85% Government of India's share and `20.25 crore as 15% state share (including unspent balance of previous year) during 2012-13, an outlay of `85.00 crore as 85% Government of India's share and `15.00 crore as 15% state share is provided in the Annual Plan 2013-14.

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

Outlay – `30.00 lac

1.1.38 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.

1.1.39 Against an expenditure of ₹42.54 lac as 38% Government of India's share and ₹15.45 lac as 26% state share during the 11th Plan, an outlay of ₹1.83 crore as 38% Government of India's share and ₹1.25 crore as 26% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹44.00 lac as 38% Government of India's share and ₹75.00 lac as 26% state share (including unspent balance of previous year) during 2012-13, an outlay of ₹45.30 lac as 38% Government of India's share and ₹30.00 lac as 26% state share is provided in the Annual Plan 2013-14.

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

Outlay – ₹5.00 crore

1.1.40 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 2013-14 respectively.
- (2) To strengthen the nursery production work for raising plants
- (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.

1.1.41 Against an expenditure of ₹14.15 crore during the 11th Five Year Plan, an outlay of ₹30.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹5.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ₹40.00 lac

1.1.42 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 2013-14.

1.1.43 Against an expenditure of ₹1.28 crore during the 11th Five Year Plan, an outlay of ₹2.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹40.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 40.00 lac

1.1.44 The objective of the scheme is to provide latest technical know-how relating to horticulture and vegetable programme and scientific use of horticulture inputs like seeds, fertilizers, plant protection measures etc. Training regarding pruning of trees and weed control etc. would be provided in a simplified way to the fruits and vegetable growers by organizing fruits/vegetable shows and seminars. Farmers training camps will also be organized at district and village level and farmers will be taken on planned field visits to the progressive growers, orchards and other institutions including research stations to expose the fruit growers to the horticultural operations and to create personal contacts by interacting with the progressive growers of the adjoining States.

1.1.45 Against an expenditure of ` 1.52 crore during the 11th Five Year Plan, an outlay of ` 2.50 crore has been provided in 12th Five Year Plan. Against an outlay of ` 40.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

HORT-06/6 Strengthening of Citrus Estates

Outlay – ` 10.00 crore

1.1.46 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, powersprayers, fruit graders, pre-cooling chambers and waxing of fruits etc. would be created in these estates.

1.1.47 Against an expenditure of ` 20.50 crore during the 11th Five Year Plan, an outlay of ` 50.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 10.00 crore, same outlay is provided in the Annual Plan 2013-14.

HORT-07 Establishment of Litchi & Pear Estates

Outlay – ` 5.00 crore

1.1.48 Good quality Litchi is being successfully grown in well defined agro climatic zone, pockets in sub mountainous area of Punjab, mainly in Gurdaspur, Pathankot, Hoshiarpur districts. Pathankot district leads in Litchi cultivation in Punjab State. The Litchi varieties commonly grown are Dehradun & Calcutta. At present total area under Litchi is about 1460 ha with the estimated production of 14600 ton. The total area under litchi cultivation in district Gurdaspur, Pathankot estate alone has an area of 945 ha which is

distributed in 194 villages and 363 litchi growers, which are in the 20 Km diameter of Pathankot.

1.1.49 Good quality of pear is being successfully grown in area of Punjab, mainly in Amritsar, Tarntarn and Hoshiarpur district. The pear varieties commonly grown are Pathar Nakh (Sand pear), Soft pear(Punjab Nectar, Punjab Gold and Punjab beauty). At present total area under pear cultivation is about 2707 ha with the estimated production of 60000 MT., whereas Amritsar estate alone an area under pear cultivation is about 805 ha which covers 117 villages, with 229 pear growers.

1.1.50 The objective of this scheme is to improve the quality, to increase the productivity, to increase profitability per unit area, to produce quality planting material, to increase the area under pear and to facilitate/promote marketing of Litchi and Pear.

1.1.51 An outlay of ` 10.00 crore has been provided in the 12th Five Year Plan. Against an outlay of ` 4.00 crore during 2012-13, an outlay of ` 5.00 crore is provided in the Annual Plan 2013-14.

New Schemes

HORT-08 Financial assistance to producers and exporters of fruits and vegetables through PAGREXCO

Outlay – ` 1.25 crore

1.1.52 The main objective of this scheme is to promote research and development in Horticulture /agriculture and provide financial assistance for creation of infrastructures to facilitate quality export/distant marketing of horticultural produce.

1.1.53 An outlay of ` 1.25 crore is provided in the Annual Plan 2013-14.

HORT-09 Creation and improvement of infrastructure in Government nurseries/vegetable farms and other units

Outlay – ` 2.50 crore

1.1.54 Department of Horticulture has the onus of supplying quality seeds, disease/virus free planting material, mushroom spawn etc. to the farmers from its seed farms, nurseries units which plays an important role in improving the profitability of the farmers in the field. These government units also act as Models of latest applied horticultural technologies which are showcased to be adopted by the farmers to promote State's diversification plans. But present infrastructure of these units has become outdated which needs to be updated with latest horticultural technology tools to make horticulture globally competitive. To meet the specific needs of modernization of the said government units

leading to enhanced profitability of horticulture sector, a new scheme has been included in the Annual Plan 2013-14.

1.1.55 An outlay of ` 2.50 crore is provided in the Annual Plan 2013-14.

Centrally Sponsored Schemes (100%)

CS(AGR)-06/1 Agricultural Census

Outlay – ` 50.00 lac

1.1.56 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.

1.1.57 Against an expenditure of ` 1.19 crore during the 11th Five Year Plan, an outlay of ` 2.50 crore has been provided in 12th Five Year Plan. Against an outlay of ` 50.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ` 1.25 crore

1.1.58 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.

1.1.59 Against an expenditure of ` 41.46 lac during the 11th Five Year Plan, an outlay of ` 6.25 crore has been provided in 12th Five Year Plan. Against an outlay of ` 1.25 crore during 2012-13, same outlay of is provided in the Annual Plan 2013-14.

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

Outlay - ` 60.00 lac

1.1.60 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.

1.1.61 Against an expenditure of ₹15.84 lac during the 11th Five Year Plan, an outlay of ₹3.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹60.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

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

Outlay – ₹20.00 lac

1.1.62 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.

1.1.63 Against an expenditure of ₹39.00 lac during the 11th Five Year Plan, an outlay of ₹1.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹20.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

New Scheme

CS (AGR)-09 Scheme for Post Harvest Technology and Management

Outlay - ₹1.50 crore

1.1.64 The basic aim of the scheme is to create adequate infrastructure in the production catchments/rural areas for primary processing and value addition so as to reduce the post harvest losses on the farm to mop up surpluses at farm level and ensure fair price for the producer including availability of the produce in the production catchments itself at a reasonable price for the consumers in these areas. The scheme will focus on lower end of the spectrum of post harvest management and processing that are not covered under the ministry.

1.1.65 Under the scheme, the technologies developed by ICAR, CSIR and those identified from within the country and abroad for primary processing, value addition, low cost scientific storage/transport of cereals, pulses, oilseeds, sugarcane, vegetables and fruits and the crop bi-product management shall be given thrust. Government assistance (subsidy) @ 40% of the total cost of technology/project shall be provided to the farmers.

1.1.66 An outlay of ₹ 1.50 crore is provided in the Annual Plan 2013-14.

1.2 SOIL AND WATER CONSERVATION

Outlay – ₹ 109.62 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 ₹ 47.83 crore during the 11th Five Year Plan, an outlay of ₹ 266.35 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 83.95 crore during 2012-13, an outlay of ₹ 109.62 crore is provided in the Annual Plan 2013-14. The physical target is 30063 ha.

Ongoing Schemes

Centrally Sponsored Schemes

SWC-02/2 National Mission on Micro Irrigation (80:20)(CSS)

Outlay – ` 5.00 crore

1.2.4 The objective of the scheme is to promote the drip and sprinkler irrigation by providing subsidy at the rate of 50% of the cost of MI system on horticulture and non horticulture crops. Subsidy for small & marginal farmers is @ 60%. Assistance will be available to the farmers growing all horticultural crops like fruit, vegetables including potato, onion and other root and tuber crops, spices, medicinal and aromatic plants, all plantation crops excluding tea, coffee, rubber and oil palm etc.

1.2.5 Against an expenditure of ` 42.34 crore as 80% Government of India's share and ` 6.99 crore as 20% state share during the 11th Plan, an outlay of ` 100.00 crore as 80% Government of India share and ` 25.00 crore as 20% state share has been provided in the 12th Five Year Plan. Against an outlay of ` 20.00 crore as 80% Government of India's share and ` 5.00 crore as 20% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14 to cover physical target 5000 ha.

SWC-03/9 Assistance to farmers in Under Ground Pipe System (UGPS) for Promotion of on-Farm Water Conservation (ACA-2010-11).

Outlay - ` 15.00 crore

1.2.6 At present, ground water level is depleting @ 50-100 cm in approximately 90% area of the state and 103 blocks out of total 141 blocks have already been declared over-exploited. Punjab has more than 12 lakh tubewells which irrigate about 3 million hectares of land. The water application efficiency through surface irrigation is about 30 to 35% and approximately 1 million ha water is lost in evapo-transpiration in the open conveyance channels which are by & large unlined. Apart from it, approximately 10 thousand hectares of land is wasted under kutchha channels. To sustain & conserve water resources, there is an immediate need to propagate on-farm water conservation by replacing low-efficiency kutchha field irrigation channels with high-efficiency Underground Pipeline System (UGPS) which can not only save 15-25% of water, power & labour but also 1% of productive land. There is a persistent demand among farmers for subsidy on Underground Pipeline System (UGPS) in all districts of the state. Therefore, a new scheme was launched for providing subsidy on UGPS during the Annual Plan 2009-10.

1.2.7 Under this scheme 50% subsidy will be provided to the individual farmers on laying of RCC Underground Pipe Line System (UGPS) on the agricultural fields owned by them in all districts of the state. One time ACA of ₹ 15.00 crore was provided for this scheme in the Annual Plan 2010-11 however the scheme could not be implemented during that year. An outlay of ₹ 75.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 15.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14 to cover area of 6800 ha.

SWC-06/5 Soil and Water Conservation on Watershed basis in Kandi non project Areas.

Outlay – ₹ 1.50 crore

1.2.8 The scheme is mainly meant for undertaking soil and water conservation works in Kandi tract of the state. The major interventions include Drainage Line Treatment, Gully Control, Rainwater Harvesting, In-situ Moisture Conservation, Stream bank erosion control and Development of Micro water resources in the Kandi Non-project area with the objectives of soil & water conservation, erosion control and livelihood support. The scheme shall be implemented in the Kandi area of the State falling in the districts of Ropar, Nawanshahar, Hoshiarpur, Gurdaspur and SAS Nagar.

1.2.9 Against an expenditure of ₹ 6.00 crore during the 11th Five Year Plan, an outlay of ₹ 7.50 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 1.50 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14. The physical target is 1000 ha.

SWC-07/6 Provision for Machinery Division at the Headquarter

Outlay – ₹ 50.00 lac

1.2.10 This scheme is for operation of the machinery like bulldozers, excavator-cum-loader, tractors and laser levelers used on subsidized hiring basis for development of farm land for departmental works and the fields of the farmers in the state.

1.2.11 Against an expenditure of ₹ 1.63 crore during the 11th Five Year Plan, an outlay of ₹ 2.50 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 50.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

SWC-08/7 Scheme for Rain Water Harvesting in the State

Outlay – ` 2.00 crore

1.2.12 Scheme for rain water harvesting is being implemented in the state to accelerate ground water recharge for the replenishment of depleting water level in the state. These types of works are highly important for the replenishment of ground water aquifer as well as flood/erosion-control in kandi area of the state.

1.2.13 Against an expenditure of ` 7.50 crore during the 11th Five Year Plan, an outlay of ` 10.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 2.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14 to cover area of

1000 ha.

SWC-09/10 Scheme for Strengthening of State Land Use Board (SLUB)

Outlay - ` 35.00 lac

1.2.14 Punjab State Land Use Board (SLUB) has been constituted and notified by the state government under the chairmanship of Hon'ble Chief Minister Punjab mainly to prepare inventory for better land use & carry out studies & seminars. Till 2000-01, this programme was a part of the Centrally Sponsored "Macro Management Work Plan for Soil Conservation" as a sub-scheme "State Land Use Board" financed by Gol. However, the Gol discontinued financing for State Land Use Board (SLUB) w.e.f. July, 2009. In order to keep the Punjab State Land Use Board (SLUB) functional and for meeting its operational expenses, the scheme was included in the Annual Plan 2010-11.

1.2.15 Against an expenditure of ` 2.43 lac during the 11th Five Year Plan, an outlay of ` 50.00 lac has been provided in 12th Five Year Plan. Against an outlay of ` 10.00 lac during 2012-13, an outlay of ` 35.00 lac is provided in the Annual Plan 2013-14.

SWC-10 Project for judicious use of available water and harvesting of rain water for enhancing irrigation potential in Punjab State (NABARD-RIDF-XVII)(95:5)

Outlay- ` 48.00 crore

1.2.16 A 3-year "Project for judicious use of available water and harvesting of rainwater for enhancing irrigation potential in Punjab state" has been approved by NABARD during 2011-12 under RIDF-17 for ` 120.00 crore in the ratio of 95:5. The NABARD share would be ` 114.00 crore and the state share would be ` 6.00 crore. Under the project 90% assistance would be provided for Community Underground Pipeline System (UGPS) Projects in 10 districts and 100% assistance would be provided on Rainwater Harvesting Structures in Kandi area.

1.2.17 An outlay of ` 120.00 crore has been provided in 12th Five Year Against an outlay of ` 48.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14 to cover area of 14000 ha.

New Scheme

SWC-11 Community Micro Irrigation Project in Kandi Belt of Talwara and Hazipur blocks of district Hoshiarpur (NABARD-RIDF-XVIII)

Outlay- ` 12.64 crore

1.2.18 A new 3 year "Community Micro Irrigation Project in Kandi-belt of Talwara and Hajipur blocks of District Hoshiarpur" at a total cost of ` 3157.89 lac has been sanctioned by NABARD during 2012-13 under RIDF-XVIII.

1.2.19 An outlay of ` 12.64 crore is provided in the Annual Plan 2013-.

SWC-12 Project for laying of underground pipeline for irrigation from sewage treatment plants of various towns/cities (NABARD-RIDF-XVIII)

Outlay- ` 12.64 crore

1.2.20 A new 3 year "Project for laying of Underground Pipeline for irrigation from Sewage Treatment Plants of various Towns/Cities(NABARD-RIDF-XVIII)" at a total cost of ` 3157.80 lac has been sanctioned by NABARD during financial year 2012-13 under RIDF-XVIII.

1.2.21 An outlay of ` 12.64 crore is provided in the Annual Plan 2013-14 to cover area of 2000 ha.

SWC-13 Scheme for construction of check dams and gabion structures in Talwara of Hoshiarpur District.

Outlay- ` 11.96 crore

1.2.22 Talwara block in Kandi Area of Hoshiarpur Distt is plagued by soil-erosion caused by the rivulets passing through which are flooded during rainy season and the high runoff velocity aggravates the problem of soil erosion. Keeping in view the problem of high

infiltration rate of bouldery soils of the area, small Check Dams in small and medium level choes has been proposed to conserve/recharge rainwater. Flood Protection works like Gabion Structures (Wire Crates) have been proposed to channelize the wide spread choes so that the valuable arable land can be saved from the seasonal floods.

1.2.23 An outlay of ` 11.96 crore is provided in the Annual Plan 2013-14 to cover area of 4000 ha.

1.3 ANIMAL HUSBANDRY

Outlay- `76.43 crore

1.3.1 Livestock is an important sub-sector of agriculture in Punjab. Diversification of state agriculture through allied activities comprising animal husbandry, commercial dairying & fisheries has acquired added significance in the reduction of income disparities between rural and urban population. Livestock keeping along with marketing services, manufacture of livestock products, inputs and other subsidiary and supporting industries offer a great scope for gainful employment to the expanding labour force, small and marginal farmers and agricultural labour and thus helps to raise the standard of living of rural population especially of weaker sections of the society. Regional Disease Laboratory at Jalandhar caters to the need of seven Northern States. The Department has a vast network of veterinary institutions (Hospital and Dispensaries). There are 19 Vety. Polyclinics, 1367 Hospitals and 1485 Dispensaries in the state to provide health cover to the animals. Out of 1367 Veterinary Hospitals, 582 Veterinary Hospitals were shifted to Panchayati Raj Institutions (PRI's) during the year 2006-07.

1.3.2 Against an expenditure of ` 91.56 crore during the 11th Five Year Plan, an outlay of ` 284.01 crore has been provided in 12th Five Year Plan. Against an outlay of ` 92.06 crore during 2012-13, an outlay of ` 76.43 crore is provided in the Annual Plan 2013-14 for the implementation of following schemes:-

Ongoing Schemes

Centrally Sponsored/funded Schemes

AH-01/2 Assistance to States for control of animal diseases-creation of Disease Free Zone (75:25)

Outlay- `1.25 crore

1.3.3 In order to keep the state free of livestock and poultry diseases, extensive vaccination against various diseases will be carried out throughout the state. The State Biological Production Institute will be modernized and state diagnostic labs will also be

upgraded. In addition, training programmes for Vets/Para Vets and state/block level awareness camps will be organized as per GoI guidelines. It is also proposed to carry out vaccination programme against Foot & Mouth Disease in all the districts. Efforts will be made to control the exotic diseases like Avian Influenza etc.

1.3.4 Against an expenditure of ₹ 8.11 crore as 75% Government of India's share and ₹ 2.64 crore as 25% state share during the 11th Plan, an outlay of ₹ 13.50 crore as 75% Government of India share and ₹ 4.50 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 3.75 crore as 75% Government of India's share and ₹ 1.25 crore as 25% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-02/4 Integrated Sample Surveys for cost assessment of production of milk and eggs (50:50)

Outlay- ₹ 75.00 lac

1.3.5 The cost studies are very useful in formulating policies relating to the procurement price, trade control, subsidization, tariff determination etc. It also helps in assessing the cost of production of milk and eggs. It is proposed to carry out the study in the state to ascertain fluctuations in cost of production on the basis of area.

1.3.6 Against an expenditure of ₹ 35.98 lac each as 50% Government of India's share and 50% state share during the 11th Plan, an outlay of ₹ 2.50 crore each as 50% Government of India share and 50% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 50.00 lac each as 50% Government of India's share and 50% state share during 2012-13, an outlay of ₹ 75.00 lac each as 50% Government of India's share and 50% state share is provided in the Annual Plan 2013-14.

AH-03/11 Professional Efficiency Development through strengthening of Punjab Veterinary Council (50:50)

Outlay- ₹ 20.00 lac

1.3.7 The objective of the Punjab State Veterinary council is to regulate the veterinary practice, maintain the professional standards and to advise the state regarding improvement of quality services in the field of veterinary profession.

1.3.8 Against an expenditure of ₹ 51.50 lac as 50% Government of India's share and ₹ 51.50 lac as 50% state share during the 11th Plan, an outlay of ₹ 1.00 lac each as 50% Government of India share and 50% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 20.00 lac each as 50% Government of India's share and 50% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-04/25 Establishment and Strengthening of existing Vety.Hospitals and Dispensaries (75:25)

Outlay- ` 3.00 crore

1.3.9 Presently, the Department of Animal Husbandry is extending Animal Health Care Service to livestock owners through 1367 Veterinary Hospitals (out of these 582 Vety. Hospitals have been transferred to Zila Parishads), 1485 Veterinary Dispensaries and 19 Veterinary Polyclinics. Majority of these institutions are in dilapidated condition and need repair/renovation. Under this scheme, the buildings of 20 vety hospitals and 20 vety dispensaries are being constructed and 40 vety hospitals & 60 vety dispensaries are being renovated.

1.3.10 Against an expenditure of ` 4.00 crore as 75% Government of India's share and ` 1.33 crore as 25% state share during the 11th Plan, an outlay of ` 45.00 crore as 75% Government of India share and ` 15.00 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ` 9.00 crore each as 75% Government of India's share and ` 3.00 crore as 25% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-05/27 Assistance to State Poultry Farm-Strengthening of Government Poultry Farms (80:20)

Outlay- ` 10.00 lac

1.3.11 Under this scheme large number of female and male of selected parents flock will be reared at poultry farm, Kotkapura and day old chicks produced will be distributed to the target group. It is proposed to propagate low input technology birds and Japanese quail by strengthening the government poultry farm, Kotkapura. Main objective is to supplement the income and improve nutritional status by backyard rural poultry production.

1.3.12 From 2011-12 onwards, the scheme has been converted from 100% CSS to 80:20 sharing scheme. An outlay of ` 2.00 crore as 80% of Gol share and ` 50.00 lac as 20% state share has been provided in the 12th Five Year Plan. Against an outlay of ` 40.00 lac as 80% Government of India's share and ` 10.00 lac as 20% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH -07/23 Upgradation of Vety Institutions in the State under RIDF-XVII (NABARD)(90:10)

Outlay - ` 13.00 crore

1.3.13 NABARD has approved a project at a total cost of ` 24.73 crore under RIDF-XVII for up-gradation of veterinary dispensaries by providing latest equipment and other

related items, construction of building of 48 veterinary hospitals, establishment of Regional Multi-disciplinary Training & Extension Centre at Jalandhar.

1.3.14 An outlay of ₹ 25.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 13.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-08/28 Construction of Civil Infrastructure for Guru Angad Dev Vety. Animal Science University (GADVASU)(NABARD) & (ACA-2012-13)

Outlay- ₹ 16.00 crore

1.3.15 For provision/development of infrastructural facilities of GADVASU, NABARD has approved a project during 2011-12. The total cost of the project would be ₹ 40.00 crore which would be in the ratio of 80:20 (NABARD:State). During 2012-13, Government of India has also approved an ACA of ₹ 35.00 crore for strengthening of infrastructure of GADVASU. It has been decided to meet the state share of ACA i.e. ₹ 24.50 crore through NABARD under this scheme. The funds would be provided as under:-

(₹ crore)

SN	Name of the work	District	NABARD share	State share	Total
1	College of Fisheries	Ludhiana	6.62	0.35	6.97
2	Milk Plant(Demonstration Unit)	Ludhiana	3.37	0.18	3.55
3	School of Animal Bio-technology	Ludhiana	9.63	0.50	10.14
4	Vet Referral Hospital	Ludhiana	14.62	0.77	15.39
5	Directorate of Extentions	Ludhiana	3.76	0.20	3.95
	Total		38.00	2.00	40.00

1.3.16 An amount of ₹ 40.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 16.00 crore, same outlay is provided in the Annual Plan 2013-14.

H -09/20 Setting up of new polyclinics and strengthening of Vety Institutions in the State under RIDF- XIV (NABARD)(90:10)

Outlay - ₹ 6.00 crore

1.3.17 During 2008-09, NABARD had approved a project to set up 3 new veterinary polyclinics at Ludhiana, SBS Nagar & Tarn Taran and to strengthen the existing institutions by providing latest equipments at a cost of ₹ 1964.69 lac with NABARD share: ₹ 1792.38 lac

and state share : ₹ 172.31 lac. The detail of works undertaken is as follows:-

(` crore)

S.No.	Paticulars	Amount
A	Upgradation of existing 10 Veterinary Polyclinics and 782 hospitals by providing latest equipments, diagnostic and surgical equipment and other items.	14.90
B	Construction of 3 New Veterinary Policlinics at Ludhiana, SBS Nagar and Tarn Taran.	4.75
	Total:	19.65

1.3.18 Against an expenditure of ` 13.70 crore during the 11th Five Year Plan, an outlay of ` 15.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 6.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-11/6 Plan Assistance to Guru Angad Dev University Veterinary and Animal Sciences University (GADVASU) at Ludhiana

Outlay - ` 13.00 crore

1.3.19 In order to focus research and development in the livestock sector, a separate veterinary and animal sciences university(GADVASU) has been set up at Ludhiana on 6th April, 2006. The mandate of the University is to impart education and training in different disciplines of veterinary, animal husbandry, fishery and dairy science and to provide research and development support for generation and dissemination of technologies and knowledge for growth of livestock sector. To achieve these goals, College of Dairy Science and Technology was established to meet the man power requirements for milk processing industry and for evolving and transfer of appropriate milk processing technologies. Similarly, the College of Fisheries was started in 2008. It is the only college in Northern India which is well equipped to undertake teaching, research and training in fisheries. GADVASU has also established regional livestock research and training centre and a veterinary polytechnic at Kaljharani, district Bathinda.

1.3.20 Against an expenditure of ` 52.20 crore during the 11th Five Year Plan, an outlay of ` 115.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 23.00 crore during 2012-13, an outlay of ` 13.00 crore is provided in the Annual Plan 2013-14.

AH-12/8 Development of Piggery Sector in the State

Outlay- ` 70.00 lac

1.3.21 Presently, about 1500-2000 piglets of superior germplasm are being produced at existing pig breeding farms for further supply to the beneficiaries for fattening/breeding. The demand for piglets has increased but the present strength of breedable stock maintained at farms is not in a position to meet the enhanced demand of piglets. Therefore, strengthening of the existing pig breeding farms is required to be undertaken. For this purpose breedable stock maintained at these farms will be increased and also the existing infrastructure of farms will be renovated/updated

1.3.22 Against an expenditure of ` 98.33 lac during the 11th Five Year Plan, an outlay of ` 2.50 crore has been provided in 12th Five Year Plan. Against an outlay of ` 50.00 lac during 2012-13, an outlay of ` 70.00 lac is provided in the Annual Plan 2013-14.

AH -13/13 Animal Husbandry Extension and Training Programme

Outlay - ` 1.30 crore

1.3.23 The main objective of the scheme is to provide opportunities to un-employed educated youth for self employment in rural areas. This will help in uplifting the standard of living of poor livestock breeders/farmers living below the poverty line. Animal welfare camps, exhibitions are being organized and advertisements through local newspapers are being published to make the public aware of preventive measures and first aid treatment to animals.

1.3.24 Training is also imparted to officers in the field of management and for the implementation of various schemes of the department from time to time. Extension and training programmes will be implemented in the following manners:-

- a. Disease Control Programme Campaign.
- b. Awareness campaign in management of animals/birds.
- c. Training component campaign.
- d. Animal welfare camps campaign.

1.3.25 Against an expenditure of ` 21.79 lac during the 11th Five Year Plan , an outlay of ` 11.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 2.20 crore during 2012-13, an outlay of ` 1.30 crore is provided in the Annual Plan 2013-14.

AH-14/15 Development of other livestock like Poultry, Goat, Sheep and Turkey etc. in the State

Outlay- ` 50.00 lac

1.3.26 The main objective of the scheme is to uplift the small farmers of weaker sections of the society, scheduled castes and backward classes. They would be trained to take up poultry, piggery and sheep farming on small scale to supplement the family income

with the help of family members. It is proposed to set up goat-breeding farms in the state. Financial Assistance will also be provided to set up poultry, sheep, goat and turkey units to the breeders.

1.3.27 Against an expenditure of `35.79 lac during the 11th Five Year Plan, an outlay of `3.00 crore has been provided in 12th Five Year Plan. Against an outlay of `50.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-15/17 Development of Fodder Resources and its Processing

Outlay- `60.00 lac

1.3.28 Milk production could be doubled with the available livestock in the state if balanced feeding of dairy animals is practiced. Green fodder is the cheapest source of milk production. At present, 23 Kg green fodder per adult unit is available daily against the optimum requirement of 40 Kg. Under this scheme, farmers will be persuaded to grow balanced fodder through awareness camps, supply of fodder mini-kits, audio visual aids, etc. It is proposed to establish 3 new fodder seed processing units in the state as it is not possible to bring the whole seed at Kulemajra farm for gradation, leveling packing etc.

1.3.29 Against an expenditure of `68.34 lac during the 11th Five Year Plan, an outlay of `3.00 crore has been provided in 12th Five Year Plan. Against an outlay of `60.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

AH-17 Grant-in-aid to Animal Welfare Board of Punjab

Outlay- `5.00 crore

1.3.30 There is a dire need to check the increased number of stray animals, stray dogs and effective implementation of various acts/laws specially meant for this purpose and provide facilities for rehabilitation of animals. Under this scheme grant-in-aid would be provided to Animal Welfare Board of Punjab, so that it could help in implementing the laws/acts by providing financial assistance to the NGOs.

1.3.31 An outlay of `25.00 crore has been provided in the 12th Five Year Plan. Against an outlay of `5.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

New Scheme

AH-18 Construction of buildings of tehsil and block level vety hospitals and other veterinary hospitals in the state under RIDF-XVIII(NABARD aided project)(95:5)

Outlay- `15.00 crore

1.3.32 The department of Animal Husbandry is engaged in providing health care and breeding services to the indigenous and exotic animals being reared by the farmers of the state. Besides this, the services of sero-monitoring and diagnosis are also given to the livestock owners for saving the precious livestock wealth from many infectious diseases. The department is having a network of 1362 veterinary hospitals out of which 585 vety hospitals have been transferred to Zila Parishads. Presently the buildings of majority of these hospitals are in a dilapidated condition and few of them are also at the verge of collapse.

1.3.33 New buildings of 19 veterinary hospitals have been completed under RIDF XIII project and new buildings of 14 tehsil level and 34 block level vety hospitals are under process under RIDF XVII. Now it is felt that the grass root level vety hospitals should also be constructed with latest buildings plan for providing better services to livestock farmers at village level.

1.3.34 It is proposed to construct new buildings of 9 tehsil level, 28 block level and 110 other vety hospitals least more village. To achieve this project has been approved by NABARD at a total cost of ` 3663.47 lac. NABARD has also approved this project

1.3.35 An outlay of ` 15.00 crore has been provided in the Annual Plan 2013-14.

Ongoing Schemes

Centrally Sponsored Schemes (100%)

CS(AH)-06/1 National Project on Rinderpest Eradication

Outlay - ` 40.00 lac

1.3.36 The main objectives of the scheme are to strengthen the disease diagnostic capability of the state laboratories and to carry out the activities of National Project on Rinderpest Eradication in order to satisfy the OIE (Office International Epizootes) specification so as to keep the country free of rinderpest. It is envisaged to take up activities for increased livestock production and productivity, improved mobilization of economic and physical resources and effective animal health care and disease control.

1.3.37 Against an expenditure of ` 66.64 lac during the 11th Five Year Plan, an outlay of ` 3.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 40.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CS(AH)-07/2 Assistance to States for Integrated Piggery Development

Outlay – `9.00 lac

1.3.38 The aim of the scheme is to strengthen pig breeding farms for production of quality piglets for distribution among the pig breeders belonging to the weaker sections of the society and other farmers in order to give an impetus to piggery development in the state.

1.3.39 An outlay of `45.00 lac has been provided in 12th Five Year Plan. Against an outlay of `9.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CS(AH)-08/3 Livestock Census

Outlay- `5.00 crore

1.3.40 The 18th quinquennial livestock census was carried out during 2007-08. As per the guidelines issued by Government of India with the existing sanctioned field staff of the department, the 19th Livestock Census was carried out in 2012-13. It is proposed to carry out next livestock census during 12th plan.

1.3.41 Against an expenditure of `5.02 crore during the 11th Five Year Plan, an outlay of `3.00 crore has been provided in 12th Five Year Plan. Against an outlay of `60.00 lac during 2012-13, an outlay of `5.00 crore is provided in the Annual Plan 2013-14.

CS(AH)-09/4 Animal Disease, Management and Regulatory Medicines- Establishment of Regional Disease Diagnostic Lab– (Direct Release)

Outlay – `50.00 lac

1.3.42 The Govt. of India, Ministry of Agriculture, Department of Animal Husbandry and Dairying has accorded approval for the setting up of Regional Disease Diagnostic Laboratory at Jalandhar. The laboratory is being set up as per international standards in technology to provide disease diagnostic facilities to the Livestock of Northern Indian states. After completion, the lab will facilitate quick diagnosis of animal diseases which will help in dispensing the right and economical treatment to the animals. It will conform to the norms of FAO and OIE and will be approved by the international institutes. Government of India provides 100% grants for additions/alterations in the buildings, supply of equipment, staff, traveling allowance for training & attending other seminars and other miscellaneous expenditure. This lab caters to the needs of Punjab, Haryana, Himachal Pradesh, Rajasthan, Jammu and Kashmir, Chandigarh and Delhi. Keeping in view, the role of the

institute to provide quick and accurate diagnosis of various livestock diseases, Govt directly release amount for the lab.

1.3.43 Against an expenditure of ₹ 1.45 crore during the 11th Five Year Plan, an outlay of ₹ 2.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 20.00 lac, an outlay of ₹ 50.00 lac is provided in the Annual Plan 2013-14.

CS(AH)-10/5 Foot and Mouth Disease Control Programme

Outlay- ₹ 2.00 crore

1.3.44 The main objective of this scheme is to take up intensive Foot and Mouth Disease control (FMD) Programme in the State for the control of foot and mouth disease.

1.3.45 Against an expenditure of ₹ 2.53 crore during the 11th Five Year Plan, an outlay of ₹ 10.00 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 2.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CS(AH)-11/7 Conservation of threatened breeds of small ruminants, pigs, pack animals and equines

Outlay – ₹ 50.00 lac

1.3.46 The main objective of the scheme is to conserve threatened breeds of small ruminants, pigs, pack animals and equines. The scheme would be implemented through Punjab Livestock Development Board and the amount will be provided as grant-in-aid to the board.

1.3.47 An outlay of ₹ 2.50 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 50.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CS(AH)-12/9 Bio-Technology Research Projects under Fodder Development

Outlay- ₹ 20.00 lac

1.3.48 The main objective of the scheme is to improve the productivity of fodder crops. At present, approximately 23 Kg. of fodder per animal is available against the requirement of 40 Kg. The gap between demand and supply is likely to widen further due to increased pressure as a result of growing more foodgrains, oilseeds and commercial crops. Therefore, research work will be carried out to improve the genetic potential of fodder crops. The suitable varieties of fodder crops will be evolved by Punjab Agricultural University, Ludhiana and new seeds of high yielding fodder varieties produced as a result of research work will be distributed among farmers to increase the green fodder production in the State.

1.3.49 An outlay of ` 2.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 20.00 lac, same outlay is provided in the Annual Plan 2013-14.

CS (AH)-13/19 National Control Programme on Brucellosis

Outlay - ` 2.00 crore

1.3.50 Brucellosis is one of the major infectious disease of livestock caused by Brucella anprtis. It causes abortions in the last quarter of pregnancy causing huge economic losses to livestock sector. This disease has great zoonotic implications and is transmissible to human being also. The disease is causing major economic losses to dairy industry.

1.3.51 Under this scheme, prophylactic vaccination of young female population would be undertaken besides conducting surveillance of the disease.

1.3.52 Against an expenditure of ` 7.78 lac during the 11th Five Year Plan, an outlay of ` 5.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 1.00 crore during 2012-13, an outlay of ` 2.00 crore is provided in the Annual Plan 2013-14.

CS (AH)-14/21 Strengthening and Development of Fodder Resources in the State

Outlay - ` 7.00 crore

1.3.53 Green fodder is the cheapest nutrition source for cheap milk production. But only 23 kg green fodder is available per animal per day against requirement of at least 40 kg. green fodder per animal per day. The shortfall would be covered by use of high yield fodder varieties, modernized chaff-cutter for decreasing wastage of green fodder & paddy straw and cultivation of fodder in zaid/kharif crop season and preserving it technically.

1.3.54 Against an expenditure of ` 4.65 crore during the 11th Five Year Plan, an outlay of ` 15.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 3.00 crore during 2012-13, an outlay of ` 7.00 crore is provided in the Annual Plan 2013-14.

CS (AH)-15/22 Rural Backyard Poultry Development

Outlay - ` 1.00 crore

1.3.55 The objective of the scheme is to uplift the livelihood in rural areas and supplement their income and nutritional status. Under this scheme, low input technology birds would be supplied. It is proposed to cover 3000 BPL families during 2013-14.

1.3.56 An outlay of ` 3.50 crore has been provided in 12th Five Year Plan. Against an outlay of ` 70.00 lac, an outlay of ` 1.00 crore is provided in the Annual Plan 2013-14.

CS (AH)-16/23 Central Sector Scheme-National Animal Disease Reporting System(NADRS)

Outlay - `10.00 lac

1.3.57 The main objective of the scheme is to control the spread of diseases among the live stock of the state. The scheme is being implemented in collaboration with National Informatics Centre. The offices upto block level have been computerized and monitoring centres have been set up. Under this scheme, as per the guidelines of the Government of India, the recurring expenditure like fax machines, stationary, brochure printing will be met.

1.3.58 An outlay of `50.00 lac has been provided in the 12th Five Year Plan. Against an outlay of `10.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CS (AH)-17 Assistance to state for control of stray animals

Outlay - `1.00 crore

1.3.59 Stray cattle are a source of variety of problems to the society and their population in the State is rising day by day. At present, there are about one lac stray cattle in Punjab. They feed themselves on the standing crops and thereby destroy the valuable crops of the farmers. Besides, they cause traffic hazards and some times cause physical injuries to the people. The cow dung here and there causes environment pollution. In the process, the stray cattle some times suffer badly due to starvation, accidents and unkind behaviour of the people. So, there is a dire need to provide facilities for the rehabilitation of the stray cattle (especially for cows) keeping in view the interest of the society and the cattle themselves. The reasonable rehabilitation programme may provide home to these vagabound cattle i.e. maintenance ration, a minimum level of health cover and the home care. Under this scheme, the department intends to provide assistance to Gau Sewa Board, Punjab/NGOs/Animal Welfare Board of Punjab for strengthening of Gaushalas/animal shelters.

1.3.60 An outlay of `5.00 crore has been provided in the 12th Five Year Plan. Against an outlay of `1.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

1.4 DAIRY DEVELOPMENT

Outlay - `23.00 crore

1.4.1 At present, Dairy farming is still the second best choice of the farmers but to make this as an absolute alternative to present practice of cereals crop production, the vast untapped potential of this sector needs to be exploited for ensuring reasonable returns which may be atleast at par with the present level of income generation from the crop diversification.

1.4.2 The following thrust areas have been identified by the Dairy Development Department for the 12th Five Year Plan:-

- (i) Creating data base of milch animals by registration under Herd Registration Act and enhancing milk & non milk income of farmers.
- (ii) Education and training of farmers for diverting them towards commercial dairy farming with special focus on improving quality of milk and value addition at farm level by providing dairy entrepreneurship training.
- (iii) Assisting farmers in establishing commercially viable units of dairy farming for milk production with special stress on economical and scientific animal housing, herd management system, mechanization and remunerative market of milk.
- (v) Strengthening infrastructure for quality and clean milk production and establishment of farm milk coolers at farm level.
- (vi) Educating consumers about the importance of quality of milk and milk products.
- (vii) Quality Control in animal feeds and supplements.

1.4.3 Against an expenditure of ` 21.32 crore during the 11th Five Year Plan, an outlay of ` 160.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 25.21 crore during 2012-13, an outlay of ` 23.00 crore is provided in the Annual Plan 2013-14.

1.4.4 To achieve the objectives mentioned above, the following schemes/programmes would be undertaken during 2013-14.

Ongoing Schemes

Centrally Sponsored/funded Schemes

DD-01/1 Strengthening of Infrastructure for Quality and Clean Milk Production (75:25)

Outlay- ` 3.00 crore

1.4.5 The objectives of the scheme are to create infrastructure for production of quality milk and milk products, improvement of milk procurement at farmer's level and training & strengthening of infrastructure to create mass awareness about importance of clean milk production. This scheme is being implemented with the financial assistance from Government of India to provide the facility of bulk milk coolers at village level for milk unions at Ferozepur, Faridkot, Gurdaspur, Patiala, Ludhiana, Jalandhar, Hoshiarpur, Bathinda and Sangrur.

1.4.6 Against an expenditure of ₹ 5.39 crore as 75% Government of India's share and ₹ 1.32 crore as 25% state share during the 11th Plan, an outlay of ₹ 90.00 crore as 75% Government of India share and ₹ 30.00 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 18.00 crore as 75% Government of India's share and ₹ 6.00 crore as 25% state share during 2012-13, an outlay of ₹ 9.00 crore as 75% Government of India's share and ₹ 3.00 crore as 25% state share is provided in the Annual Plan 2013-14.

DD-02/3 Strengthening of Punjab Dairy Development Board

Outlay - ₹ 14.00 crore

1.4.7 The state government enacted the Punjab Dairy Development Board Act, 2000/2004 for coordination between organizations engaged in the dairy industry and to develop modern dairy farming technology system and to levy cess at the rate of ten paise per litre on registered capacity of milk plants by abolishing 'Purchase Tax' being charged on milk in the state. Milk Plants challenged the provision of cess and court struck down the same. The government abolished cess on milk plants w.e.f. 10/09/2002 and re-imposed Purchase Tax. Now, there is no source of income to Punjab Dairy Development Board. But while re-imposing purchase tax, it has been decided that the programmes of the Board can be funded out of the amount collected through purchase tax on Milk. The main dairy development programmes to be implemented by the Punjab Dairy Development Board in the year 2013-14 are as follows:-

- (i) Strengthening of Dairy Training Infrastructure
- (ii) Propagation of dairy farming as a career option
- (iii) Strengthening of quality control infrastructure for cattle feed, milk and milk products
- (iv) Regular monitoring of cost of production of milk, demand and supply position of milk and milk products
- (v) Running and maintenance of nine Mobile Laboratories (@ ₹ 4.00 lac per annum per Lab)
- (vi) Grant to Punjab Herd Registration Authority for the implementation of Herd Registration programme in the state.
- (vii) Grant for College of Dairy Science and Technology.
- (viii) Provision for construction of water trenches to provide potable water to milch animals.

1.4.8 Against an expenditure of ₹ 20.00 crore during the 11th Five Year Plan, an outlay of ₹ 100.00 crore has been provided for 12th Five Year Plan. Against an outlay of ₹ 14.00 crore during 2012-13, same outlay is provided for the Annual Plan 2013-14.

DD-03 Provision of essential staff

Outlay - `1.00 crore

1.4.9 Punjab now has 22 Districts. The department has got the staff which was sanctioned for 14 districts. Therefore, there is an urgent need to provide for the staff for the 8 district created subsequently.

1.4.10 An outlay of `30.00 crore has been provided in 12th Five Year Plan. Against an outlay of `5.21 crore during 2012-13, an outlay of `1.00 crore is provided in Annual Plan 2013-14.

New Scheme**DD-04 Mechanization of Dairy Farms**

Outlay - `5.00 crore

1.4.11 With the commercialization of farms, the size of the farms is increasing. Dairy farm operations are labour extensive and as a result of its commercialization, the labour requirement of dairy farms is multiplying particularly for making arrangements for feeding dairy animals. Moreover, the technological advancements have changed the system of feeding especially the technique of silage making calls for bulk harvesting of fodder. There are certain machinery/equipment, which can be acquired by the dairy farmers individually, but all dairy farmers cannot afford to acquire the equipment due to the cost considerations. For such dairy farmers, there is a need to create the facility which can be used by them by taking the same on rent. Therefore, there is a need for two sets of packages i.e. one to be owned by the individual farmers and other to be owned by a group or by an entrepreneur.

1.4.12 An outlay of `5.00 crore is provided in Annual Plan 2013-14.

1.5 FISHERIES

Outlay - `.11.16 crore

1.5.1 Punjab is now on the threshold of a "Blue Revolution". A trend has already been set in favour of diversification of agricultural land to fish farming. The farmers are adopting intensive fish culture in ponds and tanks on modern scientific lines through composite fish culture of fast growing species. At present 11287 ha area is under fish culture and there are around 8000 fish farmers, Punjab is having the highest average fish production of 6560 kg/ha against the national average of 3000 kg/ha. There are 868 kms of rivers and 4370 ha reservoirs & 16585 kms of canals as notified water areas. For making fish culture more lucrative and attractive to farmers and for bringing more area under fish culture, the

main thrust of the department during the 12th plan would be on providing quality fish seed of culturable varieties of fish; adopting more suitable village ponds under fish farming; providing opportunities for gainful self-employment in rural areas, providing better extension services at pond site; providing facilities of short term training in fish farming and to arrange visits of fish farmers to other states and developing saline/brackish water into fish farming.

1.5.2 Against an expenditure of ₹ 4.68 crore during the 11th Five Year Plan, an outlay of ₹ 41.26 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 10.55 crore during 2012-13, an outlay of ₹ 11.16 crore is provided for the Annual Plan 2013-14. The details of the schemes included in the Annual Plan 2013-14 are as under:-

Ongoing Schemes

Centrally Sponsored/ funded Schemes

FH-01/2 Development of fisheries and aquaculture (Previously named Assistance to Fish Farmers Development Agencies in the state) (75:25)

Outlay - ₹ 52.00 lac

1.5.3 This scheme aims at assisting the members of all the existing Fish Farmers Development Agencies (FFDA). Under the scheme subsidies are given for excavation of fish ponds, renovation of old ponds, establishment of fish feed unit, fish seed hatchery, integrated hatchery, soil & water kits, breed bank for ornamental fish & conservation of river fish.

1.5.4 Against an expenditure of ₹ 1.00 crore as 75% Government of India's share and ₹ 33.34 lac as 25% state share during the 11th Plan, an outlay of ₹ 7.62 crore as 75% Government of India share and ₹ 2.54 crore as 25% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 1.56 crore as 75% Government of India's share and ₹ 52.00 lac as 25% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

FH-03/4 Development of Fisheries in the State

Outlay- ₹ 7.64 crore

1.5.5 Under this scheme, the following components would be covered:-

- (i) Renovation, modification/upgradation, modernization of fish seed farms;
- (ii) Training of fisheries personnel;
- (iii) Development of saline affected waterlogged area in the south-west districts of Punjab;

- (iv) Echo-friendly and sustainable development of village ponds for income generation activities and for easing out the foreseen threat of water scarcity;
- (v) Stocking of fish fingerlings in the notified waters/canals of Punjab as a measure to conserve fisheries resources for sustainable fish production.

1.5.6 Against an expenditure of ₹ 35.18 lac during the 11th Five Year Plan, an outlay of ₹ 38.63 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 10.00 crore during 2012-13, an outlay of ₹ 7.64 crore is provided in the Annual Plan 2013-14.

FH-04/10 Assistance to Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) for the establishment of college of fisheries at Ludhiana.

Outlay- ₹ 3.00 crore

1.5.7 Fisheries has been recognized as a potential sector for generation of the income employment and socio-economic improvement of the farming lot. However, emphasis on development of appropriate human resources and need based research on fisheries received no attention due to lack of appropriate scientific institute in the state. To exploit hidden potential of enhancing farmer's income through fisheries, an institute of fisheries at GADVASU Campus, Ludhiana has been established. The institute will start technical programmes leading to the degree/diplomas of (i) Bachelor of Fisheries Science (B.F.Sc.) (ii) Master of Fisheries Science (M.F.Sc.) (iii) Doctorate Degree (Phd) and a Post Graduate Diploma (PGD) in the field of Fisheries. The research conducted on different concepts of fisheries will help in removing the various impediments in profitable fish farming.

1.5.8 The main objective is to develop professionally qualified human resource in fisheries through education and training in fisheries, to conduct region specific research in fisheries and to provide advisory and consultancy services.

1.5.9 Against an anticipated expenditure of ₹ 3.00 crore during the 11th Five Year Plan only token provision of ₹ 1.00 lac has been proposed for 12th Five Year Plan, as the scheme was proposed to be transferred to non plan side during 2012-13. As the scheme could not be transferred, an outlay of ₹ 3.00 crore is provided in the Annual Plan 2013-14.

Ongoing Schemes

Centrally Sponsored Schemes (100%)

CS(FH)-04/1 Strengthening of data base and information networking for the Fisheries

Sector

Outlay- `16.00 lac

1.5.10 The main objective of the scheme is to conduct Catch Assessment survey on Inland Fisheries resources.

1.5.11 An outlay of `80.00 lac has been provided in 12th Five Year Plan. Against an outlay of `16.00 lac during 2012-13, same outlay is provided in the Annual Plan 2013-14.

1.6 AGRICULTURAL RESEARCH AND EDUCATION

Ongoing Scheme

State Funded Scheme

AGRE-1 Provision for Research and Development Schemes of PAU, Ludhiana

Outlay - `180.00 crore

1.6.1 Punjab Agriculture University, Ludhiana plays a vital role in raising productivity levels & ensuring food security of the nation. To address the emerging challenges of soil degradation, water depletion, climatic aberrations and shortage of labour, Punjab Agricultural University (PAU) has reoriented its research and technology transfer programmes towards natural resources conservation and input use efficiency (e.g. developed/adapted laser levelers, leaf colour chart, tensiometer, drip irrigation, protected cultivation etc.) and enhanced productivity in accordance with available resources. There is an urgent need to expand the programmes to cover processing and value addition, integration of biotechnology with crop improvement, mechanization using energy efficient machinery/focus on small farmers, crop production/protection for export, bio energy, development of climate resilient technologies of which multiple cropping system (e.g. early maturing wheat, rice and pulses) are going to be a critical component. Further, productivity of quality seed and planting material is to be upgraded which is critical for resource generation.

1.6.2 Against an expenditure of `77.00 crore during the 11th Five Year Plan, an outlay of `300.00 crore has been provided in 12th Five Year Plan. Against an outlay of `60.00 crore during 2012-13, an outlay of `180.00 crore is provided in the Annual Plan 2013-14.

1.7 FOOD PROCESSING

Centrally Sponsored/ funded Schemes

New Scheme

AGR-01 National Mission on Food Processing (75:25)

1.7.1 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.

1.7.2 During first year, the following components would be implemented:-

- (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.

1.7.3 During the year 2012-13, the scheme was included under the subhead "Agriculture" but with the creation of the new department of Food Processing, the scheme was shifted under this department at the time of revised estimates. An outlay of ` 7.50 crore as 75% Government of India's share and ` 2.50 crore as 25% state share has been provided

in the 12th Five Year Plan. Against an outlay of ` 1.50 crore as 75% of Government of India's share and ` 50.00 lac as 25% state share, an outlay of ` 30.00 crore as 75% Government of India's share and ` 10.00 crore as 25% state share is provided in the

Annual Plan 2013-14.

1.8 COOPERATION

Outlay – ` 17.01 crore

2.8.1 Cooperative movement is very crucial for the agriculture sector of the state which has gained momentum in the post green revolution period by availing the facilities of co-operative infrastructure, particularly ready and remunerative market for agricultural produce through creation of sufficient processing capacity pertaining to sugarcane, cotton & other agricultural produce. Today, co-operatives have pervaded almost all spheres of life including credit supply of articles of daily consumption, housing, milk supply & industrial cooperatives. It is imperative to sustain the cooperative credit structure to provide adequate financial assistance to the farmers.

1.8.2 Against an expenditure of ₹ 57.26 crore during the 11th Five Year Plan, an outlay of ₹ 128.29 crore has been provided in 12th Five Year Plan. Against an outlay of ₹ 23.01 crore during 2012-13, an outlay of ₹ 17.01 crore is provided in the Annual Plan 2013-14. The major schemes are as under:-

Ongoing Schemes

Centrally Sponsored Schemes

CN-01/2 Financial assistance to dairy cooperatives to meet out their losses (50:50)

Outlay - ₹ 5.00 crore

1.8.3 Under Operation Flood Programme launched by NDDDB with financial assistance from World Bank and EEC a lot of progress has been made in Punjab in establishing Dairy Cooperative. In the Cooperative Sector in the state there exists adequate facilities for handling, processing and marketing of milk. However, there is a wide gap between potential and performance of District Coop. Milk Unions. Most of the milk unions are saddled with accumulated losses for one reason or the other and have not been operating in viable manner. Further, progress of these milk unions depend on how soon these unions are put back on sound financial base. The financially unviable unions cannot serve the cause of the farmers and the very purpose for which these are established would be defeated. As a step to rehabilitate the financial and economic position, Government of India sanctioned Rehabilitation Project of all the six Milk Unions namely Hoshiarpur, Jalandhar, Bathinda, Amritsar, Gurdaspur & Sangrur. Rehabilitation assistance under this scheme is to be provided on 50% sharing basis by Government of India as well as Government of Punjab.

1.8.4 Against an expenditure of ₹ 15.95 crore as 50% Government of India's share and ₹ 19.55 crore as 50% state share during the 11th Plan, an outlay of ₹ 38.28 crore each as 50% Government of India share and 50% state share has been provided in the 12th Five Year Plan. Against an outlay of ₹ 5.00 crore as 50% Government of India's share and ₹ 5.00 crore as 50% state share during 2012-13, same outlay is provided in the Annual Plan 2013-14.

State Funded Scheme

Ongoing Schemes

CN-02/3 Financial assistance to dairy cooperatives for providing milking machines & other equipments to dairy farms and cooperative societies

Outlay - ₹ 1.00 crore

1.8.5 The objective of the Scheme is to improve the yield of milk and health of cattles. All farmers of the state having atleast 5-10 milch cattles and engaged in the dairy farming are being covered under this scheme. Milkfed, Punjab is mobilizing to establish commercial dairy units in the

state for increasing milk production, milk procurement and upliftment of the rural economy of milk producers, milk cooperative societies & district cooperative milk unions. MOU has been executed with various banks for arranging soft term loan to the dairy farmers for establishment of new units or extension in the existing units. During last three years, Milkfed has been able to bring more than 2000 dairy farmers in the cooperative fold by arranging soft term loan for them.

1.8.6 The Federation shall also provide milking machines and other equipments to the Dairy Farms/Cooperative Societies on 50% subsidy. The cost of one milking machine is around ` 50,000/- out of which 50% i.e. ` 25,000/- is to be borne by milk society and balance 50% i.e. ` 25000/- is subsidized by state government through Milkfed in the shape of grant-in-aid.

1.8.7 Against the expenditure of ` 1.50 crore for 11th Plan, an outlay of ` 5.00 crore has been provided in the 12th Five Year Plan. Against the outlay of ` 1.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CN-03/5 Financial Assistance to Dairy Cooperatives for making silage pits for progressive Dairy Farms and Milk Producers in the State

Outlay - `1.00 crore

1.8.8 Due to agro-climatic conditions, there is always shortage of green fodder during the months of May-June and October-November, which results in considerable downfall in milk production of milch animals, whereas during the months of July-August and February-March, there is abundance of fodder production in Punjab. To meet the shortage of green fodder during the months of May-June and October-November, it is proposed that silage making should be encouraged to check the downfall of milk production during these months. It is proposed to provide one time financial assistance for the construction of pucca silage pits of 50 MT capacity to 200 dairy cooperative societies & dairy farms every year during the 12th Five Year Plan.

1.8.9 Against an expenditure of ` 50.00 lac during the 11th Five Year Plan, an outlay of ` 5.00 crore has been provided in 12th Five Year Plan. Against an outlay of ` 1.00 crore during 2012-13, same outlay is provided in the Annual Plan 2013-14.

CN-05 Financial assistance to dairy cooperatives for strengthening/augmentation of dairy processing and production capacities in cooperative sector in Punjab

Outlay – `10.00 crore

1.8.10 The Punjab State Cooperative Milk Producers' Federation Limited popularly known as MILKFED Punjab, came into existence in 1973 with a twin objective of providing remunerative milk market to the milk producers in the state by value addition and marketing of produce on one hand and to provide technical inputs to the milk producers for enhancement of milk production on the other hand.

1.8.11 Presently the installed capacity of cooperative sector plants put together is 17.25 lakh litres per day. Milk Processing Plants of Milk Union Hoshiarpur, Gurdaspur, Jalandhar and Patiala were set up under the Operation Flood Programme of World Bank for handling the marketable surplus milk produced by the cooperative dairy farmers in these districts. With the passage of time old and obsolete processing equipments needs to be modernized and replaced by the state of art equipment to improve the milk processing/product manufacturing facility and to cut down the processing cost by way of saving the consumption of energy and to make the operations of these milk plants more viable.

1.8.12 In view of the above, for modernization of existing plants, an outlay of ` 80.00 crore has been provided under this new scheme for 12th Five Year Plan. Against an outlay of ` 16.00 crore during 2012-13, an outlay of ` 10.00 crore is provided in the Annual Plan 2013-14.