

4. IRRIGATION AND FLOOD CONTROL

Outlay - ` 1283.77 Cr

4.1 Rejuvenation and revamping of canal network is the thrust area of state government. The canal surface water distribution system consists of 14500 km of canals/distributaries covering six major systems in the State namely: Sirhind Canal system, Bhakra Main Line, Bist Doab Canal, Upper Bari Doab Canal, Sirhind feeder and Eastern canal. This canal system which is amongst the oldest in the country has out lived its life and its carrying capacity has been sub - optimized overtime. At present, 97% of the arable land in the State is irrigated, 27% from surface water (canal) irrigation and the remaining 73% met from the ground water resources. During the 10th plan, about 107 thousand hectares of additional irrigation potential was created. During the 11th plan, about 286 thousand hectares of additional irrigation potential was proposed to be created, out of which 157 thousand hectares has been brought under irrigation during last five year.

4.2 In the 11th Plan, the expenditure was incurred ` 1865.56 Cr. The 12th Plan outlay for irrigation is ` 4935.64 Cr. During 12th plan, irrigation potential of 660 thousand hectares is likely to be restored and new potential of 300 thousand hectares will be created. An expenditure of ` 418.47 Cr was incurred during 2012-13. Against an outlay of ` 1103.52 Cr, an expenditure of ` 276.11 Cr was incurred during 2013-14. An outlay of ` 1283.77 Cr for irrigation and flood control sector is provided in the Annual Plan 2014-15. The Irrigation potential likely to be created shall be 45 thousand hectares in the Annual Plan 2014-15.

4.1 MAJOR AND MEDIUM IRRIGATION

Ongoing Schemes

CSS –Flagship Schemes

IR-01 Extension of Phase-II of Kandi Canal-from Hoshiarpur to Balachaur (AIBP) (25:75) (RIDF-VIII)

Outlay – ` 120.76 Cr

4.1.1 Kandi Canal Stage-II Project from Hoshiarpur to Balachaur i.e from

RD 59.500 km to RD 130 km is an extension of Kandi Canal Stage-I, which has already been constructed. The total cost of this project was ` 147.13 Cr (at 5/97 price level) and was cleared by the Technical Advisory Committee of CWC, Ministry of Water Resources, in August 1999. The expenditure incurred during 9th Plan was ` 13.36 Cr. This project has been undertaken under Accelerated Irrigation Benefit Programme (AIBP) since 2001-2002. The sharing pattern of this scheme was 67:33 between Government of India and State Government as central loan assistance. The funding pattern under AIBP has been changed to 25:75 between Gol and state government from 2008-09. The revised project cost of Kandi Canal Stage-II is ` 346.62 Cr on the basis of January 2008 price level. The latest revised cost of this project is ` 540.24 Cr. The total length of Kandi canal phase-II project is 70 km, out of which 56 km length has already been completed. The remaining 14 km length would be completed in 2014-15. The work in remaining length of canals is in progress. With the completion of this project, irrigation facilities shall be provided to 29,527 hac. area of 218 villages.

4.1.2 An outlay of ` 101.46 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 172.37 Cr has been incurred. An outlay of ` 210.00 Cr and ` 40.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 44.08 Cr was incurred during 2012-13. Against an outlay of ` 155.85 Cr, an expenditure of ` 32.86 Cr was incurred during 2013-14. An outlay of ` 120.76 Cr is provided for Annual Plan 2014-15.

IR-02 Construction of Shahpur Kandi Dam (AIBP) (90:10)

Outlay - ` 100.00 Cr

4.1.3 The Shahpur Kandi Project is a sister concern project of Ranjit Sagar Dam Project (which stands completed). The construction of Shahpur Kandi Dam Project is essential to get the optimum benefits of power and irrigation potential created by Ranjit Sagar Dam Project. Shahpurkandi Dam Project is being constructed on river Ravi to provide a balancing reservoir to have uniform water releases for Upper Bari Doab Canal, Kashmir canal off taking from Madhopur head works and high level Ravi canal (J&K) which will off take from right side of Shahpurkandi Dam Project. It will ensure optimum power

generation during peak hours from Ranjit Sagar Dam Project. Since 2001-02 this project has been covered under AIBP. Cumulative expenditure of ` 240.00 Cr has already been incurred upto March, 2014 on acquisition of land, preliminary design, investigation, development of infrastructural works, excavation of main dam, benches, left side head regulator, hydel channel and concreting of left side head regulator.

4.1.4 Shahpurkandi Dam Project has been declared as National Project by the Ministry of Water Resources, Government of India in Feb., 2008. Planning Commission, Government of India has accorded investment clearance of the project during 2010 amounting to ` 2285.81 Cr. As per guidelines for the national projects, 90% of the cost of the irrigation component which is 28.61% is being provided by Ministry of Water Resources, Government of India as central assistance & balance 10% of the cost of the irrigation component is to be provided by the state government. Power component of the project which is 71.39% of the total cost is being provided by Punjab State Power Corporation Limited. Irrigation component works out to be ` 596.92 Cr out of which Government of India shall provide ` 529.58 Cr and GoP ` 67.34 Cr. Power component works out to be ` 1689.47 Cr. Irrigation and power components are worked out on the basis of balance cost of ` 2086.39 Cr of project after deducting expenditure of ` 199.42 Cr (upto 6/2009). Power Finance Corporation, New Delhi has already given the approval for 80% of the cost of power component as loan and remaining 20% of the cost of power component shall be arranged by Punjab State Power Corporation Limited. Target date is Oct., 2014. After completion of the project the potential of 5000 Ha in Punjab State and 32713 Ha. in J&K State shall be created. With the completion of Shahpur Kandi Dam Project, the full generation capacity of the R.S.D. Project (600 MW) will be utilized when all the turbines at the project will be made functional. An outlay of ` 200.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 93.30 Cr has been incurred. An outlay of ` 547.26 Cr and ` 100.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 30.86 Cr was incurred during 2012-13. Against an outlay of ` 100.00 Cr, an expenditure of ` 9.89 Cr was incurred during 2013-14. An outlay of ` 100.00 Cr out of which ` 90.00 Cr as central share and ` 10.00 Cr as state share is provided for Annual Plan 2014-15.

The project is proposed to be completed by 10/2016. After completion of the project, the potential of 5000 hectare in Punjab and 32173 hectare in J & K State shall be created.

IR-03/IR-04 Rehabilitation of Channels of First Patiala Feeder and Kotla Branch (AIBP) (25:75)

Outlay - ` 20.00 Cr

4.1.5 First Patiala Feeder and Kotla branch of Sirhind Canal system (off taking from Ropar head works) are unlined canals, which runs in heavy filling reaches through sandy tract zone in Punjab. First Patiala Feeder is presently capable to carry 3600 cs supply against its authorize discharge of 4010 cs. After rehabilitation, the carrying capacity of First Patiala Feeder shall be 4914 cs. Similarly Kotla Branch is presently capable to carry 2550 cs against authorized discharge of 3018 cs. After rehabilitation, the carrying capacity of Kotla Branch shall be 3304 cs. GoP has decided to rehabilitate both these canals with 20% enhanced capacity so that adequate irrigation supply may be provided to the cotton belt area of districts of Patiala, Sangrur and Mansa. The latest revised total cost of project is ` 199.39 Cr and physical target is 154 kms. The implementation of this project shall provide better irrigation facilities to about 2.65 lac ha area and bring additional area of 68624 ha falling in Patiala, Sangrur, and Mansa districts under canal command. An outlay of ` 123.30 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 120.91 Cr has been incurred. An outlay of ` 2.93 Cr and ` 20.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An outlay of ` 40.00 Cr was provided in the Annual Plan 2013-14. No expenditure was incurred during 2012-13 & 2013-14. An outlay of ` 20.00 Cr out of which ` 5.00 Cr as central share and ` 15.00 Cr as state share is provided for Annual Plan 2014-15. The cumulative expenditure upto March, 2014 is ` 120.00 Cr. The physical progress of the project is 89%. The project is targeted to be completed by March 2015.

IR-07 Extension, Renovation and Modernisation of Canals being Fed from River Sutlej

Outlay - ` 4.00 Cr

4.1.6 Govt. of India has recently sanctioned new project for extension Renovation and Modernization of Canals being Fed from River Sutlej amounting

to ₹ 734.56 Cr under AIBP assistance. Project is likely to be completed by March, 2016. The details of 4 canals are as under:-

IR-07(i)/IR-10(i) Rehabilitation of Bist Doab Canal System (AIBP) (25:75)

Outlay - ₹ 1.00 Cr

4.1.7 Bist Doab Canal off takes from the right bank of river Sutluj upstream of Ropar head works with full supply discharge of 1452 Cs. The Bist Doab Canal System serves for Gross Culturable Area of 6.36 lac acres and Culturable Command Area of 4.90 lac acres of Nawanshahar, Hoshiarpur, Jalandhar and Kapurthala Districts. The authorized full supply discharge of this system is 1452 cusecs but at present, the system carries only 1000 cusecs and irrigates about 30240 hectares land. The Bist Doab Canal System is not capable to carry additional water as per demand of the area. The estimated cost of project is ₹ 210.90 Cr. After the implementation of this project, Bist Doab System shall be able to carry 1832 cusecs discharge and existing area of 39860 hectares shall be restored and an additional area of about 8100 hectares shall be brought under irrigation. An outlay of ₹ 53.28 Cr was provided under this scheme in the 11th Plan. However, no expenditure was incurred during 11th plan. No outlay has been provided in the 12th Plan 2012-17 and an outlay of ₹ 15.00 Cr has been provided in the Annual Plan 2012-13. An outlay of ₹ 0.01 Cr was provided during 2013-14. An outlay of ₹ 1.00 Cr out of which ₹ 0.25 Cr as central share and ₹ 0.75 Cr as state share is provided in Annual Plan 2014-15.

IR-07(ii)/MI-8 Rehabilitation of Bathinda Branch (AIBP) (25:75)

Outlay - ₹ 1.00 Cr

4.1.8 A project for rehabilitation of Bathinda Branch has been prepared to enable Punjab to use its full share of available water. The designed discharge of Bathinda Branch is 2786 cusecs. The Gross Command Area (GCA) is 3.64 lac hectares. Due to less carrying capacity of the canal, the existing irrigation under the command of this canal is 2.51 lac hectares. With the completion of the project, the designed discharge of the Bathinda Branch shall be increased to 3332 cusecs and irrigation potential of 63000 hectares will be restored and additional irrigation potential of 4900 hectares will also be created. An outlay of ₹ 20.00 Cr was provided under this scheme in the 11th Plan. No expenditure was incurred during 11th plan. No outlay has been provided in the 12th Plan

2012-17 and an outlay of ₹ 15.00 Cr has been provided in the Annual Plan 2012-13. An outlay of ₹ 0.01 Cr was provided during 2013-14. An outlay of ₹ 1.00 Cr out of which ₹ 0.25 Cr as central share and ₹ 0.75 Cr as state share is provided in Annual Plan 2014-15.

IR-07(iii)/MI - 9 Rehabilitation of Sidhwan Branch (AIBP) (25:75)

Outlay - ₹ 1.00 Cr

4.1.9 A project for the rehabilitation of Sidhwan branch has been prepared to ensure full utilization of or share in Sidhwan branch off-takes from tail RD194444/R of Sirhind Canal at Manpur Head. The authorized discharge of Sidhwan Branch is 1751 cusecs and it supplies water for irrigation to the districts of Ludhiana, Moga and Ferozepur. The Gross Culturable Area (GCA) of the system is 1.71 lac hectares and Culturable Command Area (CCA) is 1.59 lac hectares. The existing area under irrigation of this canal is about 94638 hectares. The carrying capacity of the canal is not required to be increased. Only the sidelining of both sides of the canal is proposed. With the implementation of the project irrigation potential of about 32500 hectares shall be restored and an additional area of about 6000 hectares shall also be brought under irrigation. The outlay approved for Annual Plan 2009-10 is ₹ 3.50 Cr for implementation of Hon'ble High Court order for cleaning of canal against which an expenditure of ₹ 2.95 Cr was incurred. An outlay of ₹ 10.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ₹ 2.95 Cr has been incurred. No outlay has been provided in the 12th Plan 2012-17 and an outlay of ₹ 15.00 Cr has been provided in the Annual Plan 2012-13. An outlay of ₹ 0.01 Cr was provided during 2013-14. An outlay of ₹ 1.00 Cr out of which ₹ 0.25 Cr as central share and ₹ 0.75 Cr as state share is provided in Annual Plan 2014-15.

IR-07(iv) MI-10 Rehabilitation of Abohar Branch (AIBP) (25:75)

Outlay - ₹ 1.00 Cr

4.1.10 Project aimed at rehabilitation of Abohar Branch has been prepared to enable Punjab to use its full share of available water. The designed discharge of Abohar Branch is 3089 cusecs. The Gross Culturable Area (GCA) is 3.57 lac hectares with Culturable Command Area (CCA) of 3.19 lac hectares. Due to less carrying capacity of the canal, the existing irrigation

under the command of this canal is 2.55 lac hectares. With the completion of the project, the designed discharge of the Abohar Branch shall be increased to 3230 cusecs and about 63923 hectare area shall be restored and an additional area of 1870 hectares shall also be brought under the command of this canal. An outlay of ₹ 20.00 Cr was provided under this scheme in the 11th Plan. No expenditure was incurred during 11th plan. No outlay has been provided in the 12th Plan 2012-17 and an outlay of ₹ 15.00 Cr has been provided in the Annual Plan 2012-13. An outlay of ₹ 0.01 Cr was provided during 2013-14. An outlay of ₹ 1.00 Cr out of which ₹ 0.25 Cr as central share and ₹ 0.75 Cr as state share is provided in Annual Plan 2014-15.

IR-11/IR-14 Project for relining of Sirhind Feeder from RD 119700-447927 (AIBP) (25:75)

Outlay - ₹ 100.00 Cr

4.1.11 In a comprehensive assessment of water logging in southern-western Punjab by Central Ground Water Board, it has been found that one of the major causes of water logging in Muktsar, Faridkot and Ferozepur districts of Punjab is continuous seepage from Rajasthan and Sirhind Feeder canals. The project for relining of Sirhind Feeder from RD. 119700 to 447927 costing ₹ 489.165 Cr has been approved by Government of India under AIBP. 54.15% of the total cost of project is to be borne by Punjab Govt. and 45.85% of the cost shall be borne by Rajasthan Govt. Further, 25% grant assistance on the cost of project benefiting Punjab (₹ 333.71 Cr) and 90% grant assistance under AIBP on the cost of project benefiting Rajasthan (₹ 155.46 Cr) is payable by Government of India. As per "Mihir Shah Committee Report" Govt has agreed to provide ₹ 167.00 Cr as ACA (top up) under this project. After completion of the project, better irrigation facilities would be available to an area of 34548 acres in Punjab and Rajasthan. It shall also help in reclaiming 84800 hectare water logged area in Muktsar, Faridkot and Ferozepur Districts of Punjab. The project could not be started during 2010-12.No expenditure was incurred during 11th Plan. An outlay of ₹ 250.00 Cr and ₹ 40.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. No expenditure was incurred during 2012-13. Against an outlay of ₹ 40.00 Cr, no expenditure was incurred during 2013-14. An outlay of ₹ 100.00 Cr out of which ₹ 75.00 Cr as central share and ₹ 25.00 Cr as state share is provided for Annual Plan 2014-15. This project is

targeted to be completed during 2016-17. The work of this project has not been started.

IR-12/IR-15 Project for relining of Rajasthan Feeder from RD 179000-496000 (AIBP) (90:10) (Gol: Rajasthan)

Outlay - ₹ 100.00 Cr

4.1.12 In a comprehensive assessment of water logging in Southern-Western Punjab by Central Ground Water Board, it has been found that one of the major causes of water logging in Muktsar, Faridkot and Ferozepur districts of Punjab is continuous seepage from Rajasthan and Sirhind Feeder canals. The project for relining of Rajasthan Feeder from RD. 179000 to 496000 costing ₹ 952.100 Cr has been approved by Government of India. As per the AIBP Guidelines 90% grant assistance under AIBP on the cost of project is payable by Government of India and balance 10% is to be paid by Government of Rajasthan. After completion of the project, better irrigation facilities would be available in an area of 93117 acres in Punjab and Rajasthan. It shall also help in reclaiming 84800 hectare water logged area in Muktsar, Faridkot and Ferozepur Districts of Punjab. The project is proposed to be completed during 2016-17. No expenditure was incurred during 11th Plan. An outlay of ₹ 700.00 Cr and ₹ 80.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. No expenditure was incurred during 2012-13. Against an outlay of ₹ 100.00 Cr, no expenditure was incurred during 2013-14. An outlay of ₹ 100.00 Cr out of which ₹ 90.00 Cr as central share and ₹ 10.00 Cr as state share is provided for Annual Plan 2014-15.

4.2 MINOR IRRIGATION SCHEMES

Ongoing Schemes

State Funded Schemes

MI-01 Converting Banur Canal from Non Perennial to Perennial- (RIDF-XII) (95:5)

Outlay - ₹ 0.01 Cr

4.2.1 Banur Canal is a non-perennial canal being fed from Ghagger river by construction of katcha earthen bundh for the period from November to June. This project envisages of a pucca weir across for river Ghagger to feed Banur canal with an assured supply of water throughout the year in S.A.S.

Nagar and Patiala districts. The total cost of the project is ` 58.15 Cr out of which NABARD share is ` 45.56 Cr and state share is ` 12.59 Cr . The updated revised cost of the project is ` 87.14 Cr. With the completion of this project, 36022 acres of agricultural area of 60 villages, falling in Derabassi, Rajpura and Ghanur blocks of District Patiala shall be benefited. New area of 3000 acres shall also be brought under the command of Banur Canal system. The Project is likely to be completed by March, 2015. An outlay of ` 50.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 21.86 Cr has been incurred. An outlay of ` 21.44 Cr and ` 20.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. No expenditure was incurred during 2012-13. Against an outlay of ` 30.00 Cr, no expenditure was incurred during 2013-14. An outlay of ` 0.01 Cr is provided in the Annual Plan 2014-15.

MI-02 Tubewells and other schemes for Deep Tubewells in Kandi Area-RIDF-X (95:5) Completed

Outlay - ` 2.00 Cr

4.2.2 During 2014-15, the target planned to drill 10 Nos. Tubewells in Talwara Block, District Hoshiarpur. Under this scheme, an expenditure of ` 0.29 Cr was incurred during 2012-13 for Tubewells and other schemes for Deep Tubewells in Kandi Area. No outlay was provided in the Annual Plan 2013-14. An outlay of ` 2.00 Cr is provided in the Annual Plan 2014-15.

MI-04/MI-2(i) Installation of 280 Deep Tubewells and 10 other Tubewells in Kandi Area RIDF- XV (95:5)

Outlay - ` 64.00 Cr

4.2.3 The project for installation of 280 No. Deep tubewells in Kandi area of Punjab State for irrigation purposes costing ` 130.06 Cr has been sanctioned by NABARD under RIDF-XV on 27/10/2009 against which an amount of ` 123.56 Cr is to be financed by NABARD as a loan during 3 years of its implementation w.e.f.1/4/2009. An expenditure of ` 33.79 Cr has been incurred during 11th plan. No outlay has been provided in the 12th Plan 2012-17 and an outlay of ` 30.00 Cr has been provided in the Annual Plan 2012-13. An expenditure of ` 18.79 Cr was incurred during 2012-13. Against an outlay of ` 30.00 Cr, an expenditure of ` 16.93 Cr was incurred during 2013-14. An outlay of ` 64.00 Cr is

provided for Annual Plan 2014-15. The target planned to drill 93 tubewells is Kandi Area.

MI -05/MI-03(i) Construction of new 9 Low Dams-(RIDF-XIII, XIV) (95:5) (W+S) and ACA 2011-12

Outlay – ₹ 30.00 Cr

4.2.4 The department of irrigation identified 9 new dams namely, Nara, Arniala, Ramtatwali, Chak Sandhu, Bachhoie in district Hoshiarpur, Kukkar Shuha, Takrala, Mohan Majra Nighi in district Nawanshahar and Haripur dam in district Ropar which are proposed to be taken up in a phased manner and will create an irrigation potential of 5027 ha (12400 acre). The approximate cost of dams will be ₹ 345 Cr. NABARD has sanctioned a loan of ₹ 66.28 Cr (Revised cost ₹ 83.00 Cr) under RIDF-XVI scheme for the construction of Nara Dam in district Hoshiarpur and rehabilitation of irrigation Disty. System of 5 Nos. already constructed dams. NABARD has already released funds of ₹ 24.85 Cr to date out of its share of ₹ 59.04 Cr and expenditure of ₹ 8.62 Cr has been incurred upto 2012-13. There is proposal to complete the above both projects during the year 2014-15. On completion of Nara Dam, an area of 360 Ha will be benefitted and after rehabilitation of distribution system of 5 Nos. low dams, an area of 8212 Ha will get uninterrupted irrigation facilities. An expenditure of ₹ 57.02 Cr has been incurred during 11th plan. An outlay of ₹ 300.00 Cr and ₹ 10.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ₹ 8.62 Cr was incurred during 2012-13. Against an outlay of ₹ 20.00 Cr, an expenditure of ₹ 10.46 Cr was incurred during 2013-14. An outlay of ₹ 30.00 Cr is provided for Annual Plan 2014-15. The project is likely to be completed during 2014-15.

MI-06/MI-07 Externally Aided Hydrology Project Phase-II (World Bank) (80:20)

Outlay – ₹ 21.00 Cr

4.2.5 Hydrology Project Phase-II is being financed by World Bank through MoWR and stands approved as per World Bank communication dated: 25-8-2004 of MoWR. 13 States including Punjab along with various central agencies are executing the project. The total duration of the project is six years starting from Nov.2003. The Punjab component of HP-II is ₹ 40.95 Cr with contingent cost as ₹ 49.78 Cr which does not include the cost of land to be acquired for

various purposes. The revised cost of the project is ₹ 60.67 Cr. The main objective of the project is to improve the institutional and organizational arrangements, technical capabilities and physical facilities available for measurements, validation, collection, analysis, transfer and dissemination of hydrological, hydro metrological and water quality data which is basic for water resources evaluation and help in the development of the improved water resources and environmental planning and management. The project is to be implemented over a period of six years. The project has been declared effective w.e.f. 5/4/2006 with the completion date 31/3/2015. An outlay of ₹ 44.50 Cr was provided under this scheme in the 11th Plan against which an expenditure of ₹ 16.23 Cr has been incurred. An outlay of ₹ 46.43 Cr and ₹ 30.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ₹ 7.50 Cr was incurred during 2012-13. Against an outlay of ₹ 20.00 Cr, an expenditure of ₹ 4.99 Cr was incurred during 2013-14. An outlay of ₹ 21.00 Cr is provided for Annual Plan 2014-15.

MI-08/MI-12: Remodeling/Construction of distributaries/minors:

BG(MI)08(i) Remodeling/Construction of distributaries/minors-13th Finance Commission

Outlay - ₹ 50.00 Cr

4.2.6 Under this scheme remodeling/construction of distributaries and minors are being undertaken to enhance their carrying capacity which with the passage of time has been reduced due to various reasons, like increase in coefficient of rugosity in the various districts. For optimum utilization of the available surface water through the canal network, an efficient and well maintained canal system is of utmost importance. Punjab has made tremendous progress in development of canal network, which presently comprises of about 14500 km of canals/distributaries/minors for utilizing existing water resources. For improving irrigation facilities under the existing various canal systems in various district of Punjab, the works for remodeling of distributaries/minors are required to be executed.

4.2.7 The position of meager releases of funds for works component for the remodeling of canals has been going on since last several years. The condition of all the canal systems has deteriorated to such an extent that the

channels are incapable to carry their authorized discharge whereas the eagerness of the department as per policy of the Govt. is to run channels with 20% extra discharge. Therefore, remodeling of the existing canal system to cater for enhanced carrying capacity is required to be undertaken being a long term project.

4.2.8 The 13th Finance Commission has recommended a grant of ` 200.00 Cr for creation and maintenance of irrigation infrastructure in the Punjab State. This grant will be utilized for remodeling and construction of distributaries/minors in the State, accordingly a provision of ` 50.00 Cr was made for this scheme in the revised estimates of 2011-12. Government of India has also recommended ` 85.00 Cr as one time ACA under this scheme for the year 2011-12. An outlay of ` 55.00 Cr was provided under this scheme in the 11th plan against which an expenditure of ` 346.55 Cr has been incurred. An outlay of ` 500.00 Cr and ` 50.00 Cr has been provided in the 12th plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 22.88 Cr was incurred during 2012-13. Against an outlay of ` 50.00 Cr, an expenditure of ` 8.36 Cr was incurred during 2013-14. An outlay of ` 50.00 Cr is provided in the Annual Plan 2014-15.

MI-08/MI-12(ii) Other Infrastructure works including One Time ACA -2011-12

Outlay - ` 15.97 Cr

4.2.9 Under this scheme, an expenditure of ` 25.92 Cr was incurred during 2012-13. Against an outlay of ` 35.00 Cr, an expenditure of ` 10.19 Cr was incurred during 2013-14. An outlay of ` 15.97 Cr is provided in the Annual Plan 2014-15 for Other Infrastructure works including One Time ACA 2011-12.

4.3 COMMAND AREA DEVELOPMENT

Outlay - ` 463.35 Cr

4.3.1 In order to conserve substantial percentage of precious surface water being lost through seepage from katcha (unlined) water courses in the canal command areas of the State and to make optimum utilization of the scarce water for maximum productivity, the work of lining of watercourses was entrusted to Punjab Water Resources Management Development Corporation Ltd

in 1974. Since 2008-09 the Government of India decided to carry out the work of field channels under AIBP on 50:50 basis with sharing pattern of 50:40:10 between Gol, GoP and beneficiary farmers. Out of the total 1,20,000 km of watercourses in Punjab, 84000 km (70%) are to be lined. 47760 km of water courses has been lined under the different schemes upto March 2014, 36702 km of katcha watercourses are yet to be lined. The work for lining of water courses on five no. projects i.e Eastern Canal System, Kotla Branch, UBC Sirhind Feeder part-11 and Bathinda Branch Part-11 was taken up during 11th plan, out of which eastern canal system and Kotla Branch have been completed on 31/10/2007 and 31/3/2008 respectively & remaining three are ongoing. During 2007-10 the expenditure incurred was ` 227.21 Cr. An expenditure of ` 123.85 Cr was incurred against the approved outlay of ` 100.00 Cr during 2010-11. An outlay of ` 200.00 Cr was provided under this Sub-head "CAD" in the 11th Plan against which an expenditure of ` 510.45 Cr has been incurred. An outlay of ` 1183.07 Cr and ` 300.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 123.86 Cr was incurred during 2012-13. Against an outlay of ` 310.00 Cr, an expenditure of ` 124.90 Cr was incurred during 2013-14. The work of Sirhind Feeder Part-II, Bathinda Branch Part-II and Kotla Branch Part-II will be executed under Command Area Development and water Management Programme (CADWM) for which the proposed target planned is to execute 3584 KMs length of water courses with the cost of ` 652.52 Cr and 45878 hectares potential will be created for utilization. An outlay of ` 463.35 Cr is provided for Annual Plan 2014-15. The priority will be:

- (1) Where the area is water logged and underground water is not fit for irrigation;
- (2) Where the underground water is brackish i.e Kharamajha area; and
- (3) Sweet water zone.

Ongoing Schemes

CSS- Flagship Schemes

CAD-01 Construction of field Channels on UBDC system (AIBP) (50:40:10)

Outlay – ` 8.15 Cr

4.3.2 This is an ongoing scheme and is being implemented under

Command Area Development Agency (CAD) wing of MoWR, Gol and stands sanctioned vide dated 24/2/2004. The total cost of the project is ` 358.57 Cr which is revised @ ` 15000/- per ha w.e.f. 1/4/2009. On physical side the target is 184861 ha. The completion date is 31/3/2015. An outlay of ` 36.80 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 37.58 Cr has been incurred. An outlay of ` 263.62 Cr and ` 30.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 5.04 Cr was incurred during 2012-13. Against an outlay of ` 10.00 Cr, no expenditure was incurred during 2013-14. An outlay of ` 8.15 Cr is provided for Annual Plan 2014-15. Project is likely to be completed by 31/3/2015.

CAD-04/CAD-06 Construction of Field Channels on Sirhind Feeder Phase-II Canal System (AIBP) (RIDF-XIII) (50:40:10)

Outlay - ` 100.00 Cr

4.3.3 This is an ongoing scheme and is being implemented under Command Area Development Agency (CAD) wing of MoWR, Gol and stands sanctioned on 15/2/2008. The total cost of the project is ` 628.35 Cr which is revised @ ` 15000/- per ha w.e.f 1/4/2009. State share of this project of ` 121 cr has already been sanctioned by NABARD vide dated 28/7/2008 under RIDF-XIII. On physical side the target is 314496 ha. The expenditure incurred during 2008-09 was ` 38.03 Cr. An outlay of ` 60.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 234.70 Cr has been incurred. An outlay of ` 355.21 Cr and ` 100.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 48.81 Cr was incurred during 2012-13. Against an outlay of ` 100.00 Cr, an expenditure of ` 63.55 Cr was incurred and length of water courses lived is 132.17 Km during 2013-14. An outlay of ` 100.00 Cr out of which ` 50.00 as central share and ` 50.00 Cr as state share is provided for Annual Plan 2014-15. The Project is likely to be completed by 31/3/2015.

CAD-05/CAD-07 Construction of Field Channels on Bhatinda Branch Phase-II Canal System (AIBP)/(50:40:10)

Outlay - ` 50.00 Cr

4.3.4 This is an ongoing scheme and is being implemented under Command Area Development Agency (CAD) wing of MoWR, Gol and stands

sanctioned on 6/5/2008. The total cost of the project is ` 366.10 Cr which is revised @ ` 15000/- per ha w.e.f 1/4/2009. State share of this project of ` 70 Cr has already been sanctioned by NABARD vide dated 21/4/2008 under RIDF-XIII. On physical side the target is 181707 ha. The expenditure incurred during 2008-09 was ` 38.25 Cr. The completion date is 31/3/2015. An outlay of ` 40.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 131.57 Cr has been incurred. An outlay of ` 152.45 Cr and ` 50.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 14.61 Cr was incurred during 2012-13. Against an outlay of ` 50.00 Cr, an expenditure of ` 15.85 Cr was incurred and length of water courses lived is 64.57 Km during 2013-14. An outlay of ` 50.00 Cr out of which ` 25.00 Cr as central share and ` 25.00 Cr as state share is provided for Annual Plan 2014-15.

CAD-10 Construction of field Channels on Kotla Branch Phase-II System (AIBP)/(50:40:10)(RIDF-XIX) 95:5

Outlay - ` 200.00 Cr

4.3.5 This is a new project is being implemented under Command Area Development and Water Management (CAD&WM) Programme of Ministry of Water Resources, Government of India. The total cost of the project is ` 949.81 Cr. Out of this ` 350.21 Cr is central share, ` 596.41 Cr state share and ` 3.20 Cr is beneficiaries share. The state share of this project will be got financed from the NABARD under RIDF XIX. The length of 4418 Km is proposed to be lived and culturable command area to be covered is 2,66,339 hectares. Out of this 56083 Ha. will be covered during 2014-15, 84123 Ha. during 2015-16 and balance 1,26,133 Ha. will be covered during 2016-17. The date of completion is 31-3-2017. An outlay of ` 200.00 Cr out of which ` 100.00 Cr as central share and ` 100.00 Cr as state share is provided for Annual Plan 2014-15.

State Funded Schemes

CAD-06/CAD-08(i) Lining of Abohar Branch (U) Canal System in Faridkot District RIDF- XV (95:5)

Outlay - ` 30.00 Cr

4.3.6 NABARD has approved a project costing ` 147.62 Cr for lining of water courses of Abohar Branch Canal, district Faridkot out of which loan

component is ₹ 102.90 Cr and state share is ₹ 29.96 Cr. Besides ₹ 14.76 Cr will be contributed by the beneficiaries. It will benefit about 100575 hectares of land. The total length to be lined under this project is 1438 Km out of which 974 Km length of water courses have been lined upto 31/03/2014. An expenditure of ₹ 69.94 Cr has been incurred during 11th plan. An outlay of ₹ 122.38 Cr and ₹ 100.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ₹ 20.12 Cr was incurred during 2012-13. Against an outlay of ₹ 45.00 Cr, an expenditure of ₹ 9.41 Cr was incurred during 2013-14. An outlay of ₹ 30.00 Cr is provided for Annual Plan 2014-15.

CAD-06/CAD-08(ii) Lining of Abohar Branch (U) Canal System in Other District RIDF- XV (95:5)

Outlay - ₹ 40.00 Cr

4.3.7 NABARD has approved a project costing ₹ 199.17 Cr for lining of water courses of Abohar Canal in districts namely Bathinda, Ferozepur, Ludhiana, Moga and Mukatsar. The total length to be lined under this project is 1872 Km out of which 819 Km length of water courses have been lined upto 2013-14.

4.3.8 Under this scheme, an expenditure of ₹ 16.46 Cr was incurred during 2012-13. Against an outlay of ₹ 55.00 Cr, an expenditure of ₹ 13.51 Cr was incurred during 2013-14. An outlay of ₹ 40.00 Cr is provided in the Annual Plan 2014-15 for Lining of Abohar Branch (U) Canal System in Other District.

CAD-07/CAD-09 Lining of Water Courses on Bhakra Main Branch (B.M.B) Canal system RIDF- XVI (95:5)

Outlay - ₹ 20.00 Cr

4.3.9 The NABARD has approved the project for lining of 1790 kms. length of watercourses on Bhakra Main Branch Canal System amounting to ₹ 209.55 Cr on 16th, November, 2010 and sanctioned loan amounting ₹ 142.41 Cr against this project. This will benefit 176 villages in the Bathinda and Mansa districts of Punjab. Under this project, 10% share of cost of works will be provided by the beneficiaries. The work was started during the financial year 2010-11 and completion date is 31/3/2015. An expenditure of ₹ 18.30 Cr was incurred during 11th plan. An outlay of ₹ 89.40 Cr and ₹ 20.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An

expenditure of ` 17.16 Cr was incurred during 2012-13. Against an outlay of ` 50.00 Cr, an expenditure of ` 22.58 Cr was incurred during 2013-14. An outlay of ` 20.00 Cr is provided for Annual Plan 2014-15.

New Schemes

CAD-08 Construction of field channels on Sirhind Feeder Part-II Canal System (RIDF- XIX)/(95:5)

Outlay – ` 6.71 Cr

4.3.10 This is a new project and is being implemented under state plan scheme. The total cost of this project is ` 6.71 Cr. Out of this ` 6.04 Cr is state share and ` 0.67 Cr is beneficiaries share. The State Share amounting to ` 4.98 Cr has been financed by the NABARD under RIDF XIX. Under this project 54.516 Kms length of watercourses will be lined and 3257 Ha. area will be covered. The date of completion is 31-3-2016. An outlay of ` 6.71 Cr is provided for Annual Plan 2014-15.

CAD-09 Construction of field channels on Bathinda Branch Part-II Canal System (RIDF- XIX)/(95:5)

Outlay – ` 8.49 Cr

4.3.11 This is a new project and is being implemented under state plan scheme. The total cost of this project is ` 8.48 Cr. Out of this ` 7.63 Cr is state share and ` 0.85 Cr is beneficiaries share. The state share amounting to ` 6.29 Cr has been financed by the NABARD under RIDF XIX. Under this project 75 Kms length of watercourses will be lined and 5566 Ha. area will be covered. The date of completion is 31-3-2016. An outlay of ` 8.49 Cr is provided for Annual Plan 2014-15.

4.4 FLOOD CONTROL AND ANTI WATER LOGGING

Ongoing Schemes

State Funded Schemes

FC-01/ FC-02 Construction of embankments and widening of River Ghaggar from Khanauri to Karail in District Sangrur (RIDF-II) (95:5).

Outlay – ` 7.68 Cr

4.4.1 River Ghaggar is a non-perennial inter-state river. About 165 Kms length of river Ghaggar falls in Punjab territory, out of which 102 Km is in

district SAS Nagar and Patiala, 40 Km is in district Sangrur and the remaining 23 Km is in district Mansa. The aim to save the agricultural land and village abadis of the area of district Sangrur adjoining river Ghaggar from flood damages during every rainy season. The total cost of the project is ` 137.43 Cr out of which NABARD assistance is ` 67.49 Cr and State share is ` 69.94 Cr which includes the land compensation of ` 48.12 Cr ($\text{` } 69.94 - \text{` } 21.82 = \text{` } 48.12$ Cr). An outlay of ` 66.61 Cr was provided under this scheme in the 11th plan against which an expenditure of ` 91.88 Cr has been incurred and the area benefited is 24246 acres. An outlay of ` 5.00 Cr and ` 1.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 2.93 Cr was incurred during 2012-13. Against an outlay of ` 1.00 Cr, an expenditure of ` 3.00 Cr was incurred during 2013-14. An outlay of ` 7.68 Cr is provided for Annual Plan 2014-15. The area benefited is 24246 acres.

FC-08/FC-13: Link Drains/Water logging, Flood Control Drainage works in the State- RIDF- XIV (95:5)

Outlay – ` 5.00 Cr

4.4.2 In order to tackle the water logging problems in south-western districts of the State, NABARD has approved 27 schemes with a total cost of ` 25.73 Cr (NABARD share ` 24.04 Cr and state share ` 1.69 Cr) on 17/11/2008 for construction of sub- surface drains and lift schemes of various villages in Mutksar and Faridkot districts. NABARD has also approved 9 schemes of ` 38.23 Cr (NABARD share ` 37.05 Cr and state share ` 1.18 Cr) for tackling of water logging problem in district Muktsar. The target dated is 31/3/2015. An expenditure of ` 8.33 Cr was incurred during 11th plan. An outlay of ` 38.22 Cr and ` 5.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 13.16 Cr was incurred during 2012-13. Against an outlay of ` 30.00 Cr , no expenditure was incurred during 2013-14. An outlay of ` 5.00 Cr is provided for Annual Plan 2014-15. Under this scheme the area benefited is 20790 acres.

FC-11/FC-16 Providing Emergent Flood Protection on River Sutlej, Beas and Ravi (95:5) (RIDF-XVII)

Outlay – ` 5.00 Cr

4.4.3 165 schemes of flood protection works on rivers Sutlej, Ravi & Beas

in Punjab State NABARD RIDF-XVII during the year 2011-12 amounting to ₹ 79.74 Cr. Out of these funds for ₹ 15.15 Cr has been released by NABARD. The detail is as under:-

No. of projects sanctioned	165 Nos
Total financial outlay	₹ 79.74 Cr
NABARD share	₹ 75.75 Cr
State share	₹ 3.99 Cr
No.of works to be executed	127 Nos.
Cost	₹ 58.30 Cr

4.4.4 An outlay of ₹ 5.00 Cr and ₹ 5.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ₹ 30.30 Cr was incurred during 2012-13. Against an outlay of ₹ 10.00 Cr , an expenditure of ₹ 11.17 Cr was incurred during 2013-14. An outlay of ₹ 5.00 Cr is provided for Annual Plan 2014-15.

New Schemes

FC-16: Measures to tackle Waterlogging and floods in Punjab State RIDF-XIX (95:5)

Outlay – ₹ 20.00 Cr

4.4.5 The main reasons of water logging are that the topography of the entire area falling in Sri Muktsar Sahib, Lambi, Malout, Balluana, Abohar & Fazilka constituency, being of saucer shape, impedes surface drainage. The ground water in this tract is saline and brackish which cannot be utilized for irrigation, drinking and industrial purpose unlike other areas in Punjab, where the ground water is sweet and is being over-exploited. The constant seepage from the twin canals flow of intensive canal irrigation, non-existence of surface drainage system both natural and artificial absence of proper outfalls and insufficient drawn by pumping in the area and up in water logging in the area.

4.4.6 The high powered state Technical Committee after through study has listed out the various reasons of devastation deficiencies in the drainage system and its remedial measures. Keeping in view the short comings listed and the suggestions made by the committee, the present drainage system needs to be

revamped to cater with the rains of present days, which is very high in nature.

Benefits

The implementation of this project would lead to the following benefits:-

1. Reduce the period of evacuation of storm from the fields and enhance fertility of land.
2. Improve the drainage of the area and reclaim the water logged fertile area for agriculture production.
3. Improve the economy of state as well as the nation by increasing the agriculture production.
4. Reduce the seepage of rain and flood waters into the saline ground water regime due to improved drainage of the area.
5. Improve the environment of the area and check the health hazards.
6. Provide quick evacuation of excess storm water without creating stagnant pools near out fall and in low lying pockets.

4.4.7 NABARD has approved the project at a cost of ` 453.06 Cr out of which NABARD share is 125.00 Cr & state share/GOI share is 328.06 Cr. The period of completion of the project is 31/03/2017. This scheme was included in the Annual Plan 2013-14 in Revised Estimates. Under this scheme, an outlay of ` 15.00 Cr was provided in Revised Estimates of 2013-14 for Measures to tackle water logging and floods in Punjab State. An outlay of ` 20.00 Cr is provided in the Annual Plan 2014-15.

FC-17: Cleaning and Upgradation of Drains (OTACA) 2013-14

Outlay – ` 15.00 Cr

4.4.8 The funds amounting to ` 50.00 Cr (Rupees Fifty Cr) (` 15.00 Cr as Central share and ` 35.00 Cr as State share) has been approved under ACA by GOI, New Delhi to Drainage Administration for cleaning and up gradation of drains for the year 2013-2014. The funds amounting to ` 15.00 Cr as central share has been released on dated 30.12.2013 by the Govt. of India. Funds for ` 15.00 Cr (Central share) has been released by the Govt. of Punjab on dated 25.06.2014. An outlay of ` 15.00 Cr is provided in the Annual Plan 2014-15 for Cleaning and Upgradation of Drains.

Block Grants

BF-12(FC-18) Integrated Project to address Waterlogging problem in South-Western Districts of Punjab- ACA for Drainage (75:25)

Outlay- ` 50.00 Cr

4.4.9 The project has been sanctioned as per the report of "High Level Expert Committee" headed by Dr. Mihir Shah, member Planning Commission, Ministry of Water Resources, GOI, submitted to Planning Commission, GOI, New Delhi so as to address the waterlogging problem in South-Western districts of Punjab.

4.4.10 During the year 2011-12 in the month of September, there was unprecedented rainfall in the area due to which the crops got completely damaged in South-Western districts of Punjab. Life and property was badly affected. Low lying pockets remained inundated for long time causing misery in the area. The farmers faced great hardships to retrieve the normal life. The menace of water logging which caused devastation in the area shocked the central teams during their visits in the state. To tackle the problem in South-Western districts of Punjab, this project proposal envisages the following:-

1. Construction of surface drains.
2. Lift Schemes.
3. Sub Surface Drainage System.
4. Widening of existing drains.
5. Removal of overburden.
6. Construction of Bunds in forced reaches.
7. Pucca Structure.
8. Resectioning/Cleaning of Drains.
9. Special Treatment in sloughed reaches.
10. Intercepting sub-surface drains.
11. Purchase of Machinery.

4.4.11 Under this scheme, an outlay of ` 50.00 Cr out of which ` 37.50 Cr as central share and ` 12.50 Cr as state share (One Time ACA) is provided in the Annual Plan 2014-15 for Integrated Project to address waterlogging problem in South-Western Districts of Punjab.

BG(FC)-05/FC-10 Measures to address the Problem of Water Logging in the State -13th Finance Commission

Outlay – ` 50.00 Cr

4.4.12 The water table is rising in south-western districts of the State due to limited or non-extraction of groundwater due to its blackish/saline quality which makes it unfit for domestic, irrigation and other purposes mainly in the Muktsar, Malout and Abohar tracts level. After the construction of twin canals i.e. Rajasthan Canal feeder and Sirhind canal feeder, in addition to Abohar Branch and Bikaner canals, the sub- soil water level started rising at the rate of 0.2 metre to 1.0 metre annually. The area has witnessed a rise in water level upto 22 metre in the last 25 years. The main reason of water logging is non-extraction of underground water, which is blackish/saline.

4.4.13 Due to water-logging in these areas about 1.04 lac hectare area out of 2.16 lac hectare area of Muktsar has become critically water logged, the land stands submerged and is totally unfit for cultivation, the rising water table is making the land saline and unfit for productivity when ground water reaches the root zone area of crops. It has resulted in reduced agriculture production & soil quality deterioration, more inputs by farmers, thereby raising input costs and decreasing returns due to low productivity of crops.

4.4.14 A comprehensive project has been prepared comprising of providing new surface drains; sub-surface drainage system, lift schemes, correction in deficiencies of existing drains by constructing new bridges or by deepening and widening the existing drains, laser leveling and other miscellaneous measures such as pisciculture, bio-drainage and energisation of shallow tubewells. The projects proposed to be executed under anti water logging scheme are as under:- (lac)

SN	Name of Scheme	Estimated Cost
1.	Construction of left out pucca works on various drains in district Muktsar, Ferozepur and Faridkot	901.19
2.	Providing sub surface drainage schemes in low lying pockets in district Muktsar, Faridkot and Ferozepur	8000.00
3.	Cleaning and desilting of drains in Kahnuwan bet area in district	250.00
	Total	9151.19

4.4.15 13th Finance Commission has recommended a grant of ` 200.00 Cr four years i.e. 2011-2015 for anti water logging measures for Punjab State out of which ` 50.00 Cr are provided during 2011-12. No expenditure was incurred during 11th plan. An outlay of ` 200.00 Cr and ` 50.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 50.00 Cr was incurred during 2012-13. Against an outlay of ` 50.00 Cr, an expenditure of ` 39.22 Cr was incurred during 2013-14. An outlay of ` 50.00 Cr as 100% central share is provided for Annual Plan 2014-15.

Ongoing Schemes

CSS- Flagship Schemes

FC-06/FC-11 Canalization of Sakki/Kiran Nallah (75:25)(FMP)

Outlay – ` 1.00 Cr

4.4.16 In order to save the agricultural land and village abadies in Amritsar and Gurdaspur districts from floods, the work of canalization of Sakki/Kiran Nallah in Amritsar and Gurdaspur with approximate cost of ` 118 Cr (75% Gol Grant and 25% State share) has been sanctioned on 28/5/2008 by Gol. The following works are to be under taken;

Date of start	11/12/2008
Total Length to be Canalized	150 Kms
Area to be Benefited	70000 Acres
Population to be Benefited	500000 Nos
Period of Completion	6 year(31-3-2016)
Total Length of Drains out falling	328 Kms
New Bridges to be Constructed	30 Nos

4.4.17 An expenditure of ` 27.27 Cr was incurred during 11th plan. An outlay of ` 100.00 Cr and ` 27.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. The work of construction of 17 No. V.R. Bridges have been completed. An expenditure of ` 6.07 Cr was incurred during 2012-13. Against an outlay of ` 30.00 Cr, no expenditure was incurred during 2013-14. An outlay of ` 1.00 Cr out of which ` 0.75 Cr as central share and ` 0.25 Cr as state share is provided for Annual Plan 2014-15.

FC-12 Construction of Flood Protection Works along left side and right sides of River Beas in District Gurdaspur, Hoshiarpur and Kapurthala (75:25)(AIBP)

Outlay – ₹ 10.00 Cr

4.4.18 This project has been approved by Government of India for Construction of Flood Protection Works along left side and right sides of River Beas in District Gurdaspur, Hoshiarpur and Kapurthala. The project proposal has been approved by Director, cost Appraisal (HWF) Directorate, New Delhi for ₹ 46.12 Cr. The Administrative approval has been issued by the Govt. & the case for release of funds is under process in CWC office. Under the scheme, token outlay of ₹ 0.01 Cr has been provided for the Annual Plan 2013-14. Against an outlay of ₹ 0.01 Cr, no expenditure was incurred during 2013-14. An outlay of ₹ 10.00 Cr out of which ₹ 7.50 Cr as central share and ₹ 2.50 Cr as state share is provided for Annual Plan 2014-15.

FC-13 Consolidated Project proposal for flood protection works to be executed alongwith Indo Pak Border on River Ravi and its tributaries Ujh, to check erosion of culturable land village abadi and defence installation (100%) (RMABA)(AIBP)

Outlay – ₹ 20.00 Cr

4.4.19 This project have been prepared by the Drainage Administration for the safety of c-land and village abadies along indo-Pak Border on River Ravi to be funded under BADP. The site inspection has been done by CWC Team. The project has been cleared by State Technical Advisory Committee. Administrative approval stands issued by the State Government. It required to be granted technical clearance. The case is under process in the office of Director CWC, GOI, Chandigarh. Under the scheme token outlay of ₹ 0.01 Cr has been provided for the Annual Plan 2013-14. Against an outlay of ₹ 0.01 Cr, no expenditure was incurred during 2013-14. An outlay of ₹ 20.00 Cr as central share is provided for Annual Plan 2014-15.

FC-07/FC-12 Investment Clearance Plan for Flood Protection Works under Flood Management Programme (FMP) of Gol (75:25)

Outlay – ₹ 5.00 Cr

4.4.20 Punjab being a riparian State has to suffer and face devastation due to floods in three rivers i.e. Ravi, Sutluj and Beas whereas non-riparian

States Rajasthan and Haryana remain immune to adverse action of floods. The State Government has submitted projects (20 no. schemes) of ` 330.00 Cr for flood protection works to Central Water Commission (CWC) for approval. The CWC, Gol has sanctioned following three projects with a cost of ` 30.99 Cr (75% Gol Grant and 25% state share) under Flood Management Programme for district Nawanshehar and Hoshiarpur:-

Name of the project	Cost (` Cr)
(i) Construction of FPW along I-R Bandh on river Sutluj and local protection works along choes in district Nawanshahar.	11.67
(ii) Plugging and stg. breaches and bringing to design section of FPE along choes in district Hoshiarpur(Part-I)	11.27
(iii) Plugging and strengthening breaches and bringing to design section of FPE along Mechagerwal choe, Arniala choe and Gambowal choe in district Hoshiarpur(Part-I)	8.05
Total:	30.99

4.4.21 An expenditure of ` 4.69 Cr was incurred against the approved outlay of ` 20.00 Cr during 2010-11. An expenditure of ` 16.66 Cr was incurred during 11th plan. An outlay of ` 270.00 Cr and ` 15.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 0.46 Cr was incurred during 2012-13. Against an outlay of ` 5.00 Cr, an expenditure of ` 0.59 Cr was incurred during 2013-14. An outlay of ` 5.00 Cr out of which ` 3.75 Cr as central share and ` 1.25 Cr as state share is provided for Annual Plan 2014-15. The area benefited is 22980 acres.

FC-09/FC-15 Construction of Flood protection Works along River Ujh, District Gurdaspur (FMP)(75:25)

Outlay – ` 4.00 Cr

4.4.22 The project has been cleared by Planning Commission Govt of India vide letter dated 4-8-2011. An outlay of ` 5.00 Cr and ` 5.00 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 2.00 Cr was incurred during 2012-13. Against an outlay of ` 6.00

Cr, an expenditure of ` 3.12 Cr was incurred during 2013-14. An outlay of ` 4.00 Cr out of which ` 3.00 Cr as central share and ` 1.00 Cr as state share is provided for Annual Plan 2014-15.

CSS-Other than Restructured Schemes

CS(IRRI)-01 Rationalization of Minor Irrigation Statistics (100% CSS)

Outlay - ` 0.40 Cr

4.4.23 This scheme is in operation since 1986-87. The Government of India sponsors this programme on 100% basis for the collection of data on minor irrigation. The census of minor irrigation is conducted on quennial basis as per guidelines of Gol. Data is collected and compiled regarding area irrigated under different crops according to season. Information is also collected regarding extent of construction of minor irrigation works through institutional finance and through own private firms of farmers in between the two quinquennial census of minor irrigation. The statistics are reported to Government of India on regular basis. An outlay of ` 2.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 0.79 Cr has been incurred. An outlay of ` 2.56 Cr and ` 51.20 lac has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. An expenditure of ` 9.44 lac was incurred during 2012-13. Against an outlay of ` 0.30 Cr, no expenditure was incurred during 2013-14. An outlay of ` 0.40 Cr is provided for Annual Plan 2014-15.

CS (FC)-02 Construction of Flood Protection and Drainage Works (100% CSS)

Outlay - ` 7.50 Cr

4.4.24 This scheme was started during the year 1983-84. Under this scheme the funds are provided for the execution of emergent flood protection works along international border to divert the flow of river Sutluj away from Indian side. This scheme is approved by the Ministry of Water Resources, Government of India. As per practice in vogue the Remedial Committee constituted by Central Water Commission proposes the funds after visiting the site. The 31st Remedial Committee has already visited the site during January 2011 and has recommended 16 No. emergent works costing ` 5.97 Cr. Works will be started after receipt of funds. No funds were released by Government of India. An outlay of ` 50.00 Cr was provided under this scheme in the 11th Plan

against which an expenditure of ` 7.02 Cr has been incurred. An outlay of ` 37.50 Cr and ` 7.50 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. No expenditure was incurred during 2012-13 & 2013-14. An outlay of ` 7.50 Cr is provided for Annual Plan 2014-15.

CS (FC)-03/CS(FC)-06 Counter Protective Measures on left side of river Ravi (100% CSS)

Outlay - ` 7.50 Cr

4.4.25 This scheme was started during the year 1997-98. Under this scheme funds are provided by Government of India for emergent flood protection works along international border for defense security purposes. This scheme is approved by Ministry of Home Affairs, Government of India. As per practice in vogue the Remedial Committee (Constituted by Ministry of Home Affairs) proposes funds after field visits at sites. The 31st Remedial Committee has already visited the site during January 2011 and has recommended 25 No. emergent works costing ` 18.27 Cr. Works will be started after receipt of funds. No funds were released by Government of India. An outlay of ` 50.00 Cr was provided under this scheme in the 11th Plan against which an expenditure of ` 3.95 Cr has been incurred. An outlay of ` 50.00 Cr and ` 7.50 Cr has been provided in the 12th Plan 2012-17 and Annual Plan 2012-13 respectively. No expenditure was incurred during 2012-13 & 2013-14. An outlay of ` 7.50 Cr is provided for Annual Plan 2014-15.