

## 15. EXTERNALLY AIDED PROJECTS

*11<sup>th</sup> Plan Outlay - Rs 370680.10 lac*  
*Annual Plan 2007-08 Outlay - Rs 44002.10 lac*

15.1 An outlay Rs 370680.10 lac and Rs 44002.10 lac has been proposed for Externally Aided Projects for the 11<sup>th</sup> Five Year Plan (2007-12) and Annual Plan 2007-08 respectively. Out of this, an amount of Rs 262985.10 lac and Rs 32676.70 lac would be reimbursable by External Agencies for the 11<sup>th</sup> Five Year Plan and Annual Plan 2007-08 respectively. The detail of the main projects to be implemented in the 11<sup>th</sup> Plan is as under:-

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### 1. FOREST

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*11<sup>th</sup> Plan Outlay - Rs 6000.00 lac*  
*Annual Plan 2007-08 Outlay - Rs 3000.00 lac*

#### **FT 1/FT 2.8 Externally-Aided Forestry Development Project:**

15.2 The project is being implemented in the State with the assistance of JBIC (Japan Bank of International Cooperation) The operation period for this project which was for 8 years i.e. from 1997-98 to 2004-05, has now been extended up to 31.3.09. The original project cost was Rs. 40810.00 lac against which an amount of Rs. 25081.00 lac has been spent during the first tranche (up to 30.11.2002) of the project with which an area of 58481 hectas has been covered. The 2<sup>nd</sup> tranche of the project had commenced from 1.12. 2002 and scheduled to end in March 2009. The estimated project cost for 2<sup>nd</sup> tranche will be Rs. 26261.00 lac.

15.3 The objective of this project is to a afforest and rehabilitate the degraded lands in order to:-

- (1) Bridge the gap between demand and supply of the forest products.
- (2) Reverse environment degradation of hilly area of the Punjab State.
- (3) Increase the forest/tree cover by planting on available waste lands and farm lands.
- (4) Improve the stocking and productivity of the forests.

15.4 The treatments under this project include plantations on degraded forest areas, saline/alkaline area, water-logged areas, enrichment planting, Bamboo planting, Bamboo working, etc. Soil Conservation and Water Management Works, Forest Research, Extension, Forest Protection and Fire Control. GIS/MIS system are also the important components of the project. Joint Forest Management through adoption of participatory management approach is being promoted under the Project. Preparation of Wild Life and Eco tourism plan for the state. etc. will also be funded under the project. Training of the staff and local people will be

another important component of the 2<sup>nd</sup> tranche of the project. Entry point activities are being undertaken in 250 villages of the Kandi area.

15.5 In the plains, the objective has been reclamation of saline and alkaline lands, water logged areas and other degraded lands through afforestation by adopting special soil working techniques and through use of soil amendments, wherever necessary. The project provides for enrichment planting, vegetative shrub barriers, silvipasture and bamboo planting and working in Kandi area. Under this project, another important component included in the 2<sup>nd</sup> phase of the Project was distribution of quality seedlings to farmers at reasonable rates throughout the State. The total area of 21095 ha. Has been treated during the 2<sup>nd</sup> tranche. In addition, the plantation raised during the Ist tranche were maintained.

15.6 During the first tranche (1997-02), as against the expenditure of Rs 25081.00 lacs to cover an area of 53050 hectares, an amount of Rs. 23177.00. lac had been reimbursed. An outlay of Rs.22950.00 lac has been provided for the 10<sup>th</sup> Plan. In the 2<sup>nd</sup> tranche, an amount of Rs. 14564.00 lac have been reimbursed out of Rs. 19835.00 lac. The completion date of project which was 31-03-2007, which has been extended by to 31/3/09. During this period ongoing research projects on different topics will be carried on and maintenance of earlier undertaken works would be done. An amount of Rs 6000.00 lac and Rs 3000.00 lac has been provided for the 11<sup>th</sup> Plan and Annual Plan 2007-08 respectively..

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## **2. ROADS AND BRIDGES**

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*11<sup>th</sup> Plan Outlay - Rs 145000.00 lac*  
*Annual Plan 2007-08 Outlay - Rs 27500.00 lac*

### **RB-1/RD 5.6 World Bank Scheme for Road Infrastructure.**

15.7 The total cost of this project is Rs.150000.00 lac out of which 75% would be World Bank Assistance and balance 25% will be state share. This project will be executed in two phases in a period of 5 years and will cover about 1100 K.M of Roads. Based upon SOS, the roads for Phase-I(approximately 425 K.M) shall be pre- selected by GOP. The Phase-II road shall comprise about 675 K.M. The share of the World Bank Assistance shall only be in the form of reimbursement of expenditure incurred. A State Level Empowered Committee under the chairmanship of Chief Secretary to Govt. Punjab and a Project Steering Committee under the chairmanship of Secretary to Govt., Punjab, Department of PWD (B&R) has been constituted to guide and monitor the project preparation.

15.8 An expenditure of Rs. 793.00 lac was incurred during 2005-06 for the initial work to be under taken under the project. The project has been approved in principle by World Bank. An outlay of Rs. 145000.00 lac has been provided for 11<sup>th</sup> Five Year Plan and Rs 27500.00 lac for the Annual Plan 2007-08.

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### 3. IRRIGATION

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*11<sup>th</sup> Plan Outlay - Rs 4450.00 lac*  
*Annual Plan 2007-08 Outlay - Rs 1500.00 lac*

#### **MI 5/MI 2.2 (a) Hydrology Project Phase-II .**

15.9 Hydrology Project Phase-II is being taken up in the Punjab State with the financial assistance of World Bank through Ministry of Water Resources, Govt. of India. The main objective of the Project would be to improve the Institutional & Organisational arrangements, technical capabilities and physical facilities available for measurements, validation, collection, analysis, transfer and dissemination of hydrological, hydro-meteorological and water quality data, which is basic for water resources evaluation and to help in the development of the improved water resources and environmental planning & management. The total Gross Cost of the HP-II for Punjab State works out to be Rs.4095.00 lac out of which approximately 75% will be reimbursed by the World Bank.

15.10 An amount of Rs. 4450.00 lac has been provided for 11<sup>th</sup> Five Year Plan and Rs 1500.00 lac for the Annual Plan 2007-08, out of which Rs. 1200.00 lac is to be reimbursed by World Bank.

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### 4. WATER SUPPLY AND SANITATION

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#### **UWS 1/WS-2 World Bank Aided Water Supply and Sewerage Project (70:30)**

*11<sup>th</sup> Plan outlay - Rs. 0.10 lac*  
*Annual Plan 2007-08 outlay - Rs. 0.10 lac*

15.11 The State Govt. has decided to avail financial assistance from the World Bank for Water Supply and Sewerage Project in urban areas. The total cost of the project is Rs. 163974.00 lac and it will cover water supply sewerage and Sewage Treatment Plants and solid waste management of 22 major towns of the State.

The component wise cost is as under :-

( Rs. in Cr.)

SN	Component	Estimated Cost
1	Water Supply	137.92
2	Sewerage	616.36
3	S.T.Ps	459.89
4	Solid Waste Management	425.57
	<b>Total:</b>	<b>1639.74</b>

15.12 Funds to the tune of 70% of the project cost shall be arranged from World Bank and remaining 30% shall be contributed by the State

Government/Municipal Committees. The towns proposed to be covered are Amritsar, Jalandhar, Ludhiana, Patiala, Abohar, Batala, Hoshiarpur, Khanna, Malerkotla, Moga, Bathinda. Barnala, Mandi Gobindgarh, Kapurthala, Nangal, Pathankot, Phagwara, Doraha, Dera Bassi, Rayya, Sahnewal and Zirakpur.

15.13 Before the project is financed by the World Bank, financial assistance for 'Project Development Facility' (PDF) is given by the World Bank to finance high quality Technical Assistance required for the preparation of specific investment project. To get the PDF financial assistance, 'Initial Proposal Outline' (IPO) alongwith Application for PDF Assistance is required to be submitted to World Bank through Government of India. Total cost of availing PDF is Rs. 7500.00 lac, of which State Government will have to provide its 20% share of the PDF. The project is yet to be approved by the World Bank.

**RWS 4/RWS-3 Punjab Rural Water Supply and Sanitation Project (World Bank)**

*11<sup>th</sup> Plan outlay - Rs.128030.00 lac*  
*Annual Plan 2007-08 outlay - Rs. 12000.00 lac*

15.14 Punjab Rural Water Supply and Sanitation Project costing Rs.128000.00 lac has been approved by World Bank and final agreement was signed on 26/2/2007. The effective date of implementation of the project is 26/3/2007. The project has been formulated as per the guidelines of Swajaldhara programme. The project aims at covering the following villages in the next five year (2007-08 to 2012-13).

- (1) 2124 MC villages
- (2) 920 PC villages
- (3) 1600 villages – Improvement of water supply
- (4) 1000 villages – Cleaning of village ponds
- (5) 100 villages – Small Bore Sewerage System

The funding pattern of the project is given below –

World Bank	:	Rs. 750.90 crore
Government of Punjab	:	Rs. 245.40 crore
Government of India	:	Rs. 207.20 crore
Community contribution	:	Rs. 76.80 crore
<b>Total</b>	:	<b>Rs. 1280.30 crore</b>

The salient features of the project are as under-

- (1) Water supply schemes designed with a service level of 70 lpcd will include 40 lpcd for human consumption and 30 lpcd for cattle. Besides giving private water connections as per demand to the

households, water will also be provided through limited Public Stand posts to be provided for the weaker sections of the society as per limited demand.

- (2) In order to improve the environmental sanitation in villages proper drainage arrangements will be provided for the disposal of sullage water and liquid human and animal waste from each house through small-bore drainage system. New sullage drains will be constructed wherever required to ensure proper disposal of sullage water. The existing village ponds will be remodeled to collect the sullage water. The collected sullage water will be treated with low cost bio-techniques and the treated water will be used for irrigation/pisci culture.
- (3) Other components of the project includes providing cost effective technology for the treatment of water in water quality affected villages and water conservation and groundwater recharge measures for source sustainability wherever feasible.

The summary of Project cost is as follows -

<b>SN</b>	<b>Project Component</b>	<b>Cost (Rs. crore)</b>
1.	Project Management	152.00
2.	Community Development Support	119.50
3.	Infrastructure Building	1008.80
	<b>Total Project Cost</b>	<b>1280.30</b>

During 2007-08 there is a target to commission water supply scheme in 287 villages(163 NC+124 PC)

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## **5. NON CONVENTIONAL SOURCES OF ENERGY**

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### **NC-1/ NC 1.10 Power Generation From Agro Waste**

*11<sup>th</sup> Plan Outlay - Rs 45000.00 lac*

*Annual Plan 2007-08 Outlay - Rs 1.00 lac (TP)*

15.15 The main aim of this scheme is to identify and commercialise the technology for most efficient conversion of agro waste into energy. Punjab is abundant in bio-mass. In the state of Punjab, agriculture biomass/agro residue/ crop-waste available all round the year which can be used for power generation with estimated potential of 1000 MW. Most agriculture residue is being burnt in the fields. Amongst the various alternative sources of energy, recovery of energy from agro waste is becoming a very cost effective option. Various technologies are being used for power generation from agro waste.

15.16 In order to harness the available potential in this sector, during the 11<sup>th</sup> Plan period (2007-012) PEDDA proposes to set up 10 such biomass power projects in ten tehsils of the state which have already been identified. Preliminary project proposal for the same has already been prepared and submitted for soft loan funding Japan Govt. through Deptt. of Economic Affairs, Ministry of Finance, Govt. of India. This project has already been made of the rolling plan for 2006 for seeking assistance under Overseas Development Assistance Programme of Japan govt. through Japan Bank for International Cooperation (JBIC). The JBIC pre fact finding mission has already visited PEDDA in July, 06 for assessing these projects. As a out come of discussion with JBIC mission Detailed Project Reports for these ten biomass power plants are now required to be prepared. This project shall bring in the following benefits:-

- Utilisation for different Agro residue resources available in the state for power generation
- Additional Capacity Generation of 100MW power
- Demonstration of New environment friendly and clean technologies for power generation.

As per the PPR prepared, the means of finance and the project which is to be implemented in 2007-12 is as under:-

- Total Project cost	-	Rs.45000.00 lac
- JBIC ODA Loan	-	Rs.40500.00 lac (90%)
- State Govt. Share	-	Rs.4500.00 lac (10%)

15.17 The setting up of these biomass/agro residue power generation projects is in the accordance with the objectives and guidelines of State Renewable Energy Policy 2001. This project shall utilise a mix of agro residues such as rice husk, bagasse and rice straw, cotton & arhar stalks, etc. The project operations shall be commercially viable with the estimated break even being achieved in 4-5 years due to the expected ODA soft loan from JBIC.

15.18 An outlay of Rs.45000.00 lac has been provided for the 11<sup>th</sup> Five Year Plan. Since the project has not yet been approved, a token provision of Rs 1.00 lac has been provided for the annual plan 2007-08.

#### **NC-2/NC 1.12 Mini/Micro Hydel Projects**

*11<sup>th</sup> Plan Outlay - Rs 42200.00 lac  
Annual Plan 2007-08 Outlay - Rs 1.00 lac (TP)*

15.19 Punjab Energy Development Agency (PEDDA) is setting up 8 Mini Micro Hydel Projects, 4 each on Abohar and Bathinda Branch Canal respectively. The Abohar Canal Project which was being funded by the World Bank assistance at Dalla, Narangwal, Tugal and Chupki has already been completed with the

estimated cost of Rs. 2919.00 lac PEDDA has also completed 4 mini Hydel Projects on Bathinda Branch Canal with a total Power potential of 4.3 MW with an estimated cost of Rs. 3150.00 lac. PEDDA has also taken a lead in the country by setting up 8 nos technology demonstration/ Mini Micro Hydel Power Projects having total cap of 9.8 MW. PEDDA has also attracted private sector participation for such projects. 55 such projects have already been allocated to private developers with a total cap of 40 MW. 10 such projects with a total cap of 11 MW through private companies have also been commissioned on ‘Built Own and Operate’ basis.

15.20 In order to harness the available potential in the state during the 11<sup>th</sup> Five Year Plan, PEDDA has planned to setup nine small hydro power projects with installed capacity 35 MW on Bhakra Main Canal and 16MW on UBDC canal system with international soft loan financial support (@ 1.3%) from Japan Government through Japan Bank for International Cooperation (JBIC). The preliminary Project report for these projects has already been submitted to JBIC through Deptt. of Economic Affairs, Ministry of Finance, Govt. of India for availing this soft loan which will be paid back over a period of 30 years, with ten years moratorium. The pre-fact finding mission of JBIC has also had a meeting with PEDDA at Chandigarh and visited the existing working projects and some of the proposed sites during July 2006. Accordingly, this project has been planned to be executed through the following means of finance:-

-	Total Project Cost	-	Rs.42200.00 lac
-	MNES, Govt. of India grant	-	Rs.8440.00 lac (20%)
-	State Govt.	-	Rs.4220.00 lac (10%)
-	JBIC Loan	-	Rs.29540.00 lac (70%)

15.21 An outlay of Rs. 42200.00 lac has been proposed in the 11<sup>th</sup> Plan for the Small/Mini Hydro Power Projects. Since the project has not yet been approved, token provision of Rs. 1.00 lac has been provided for the Annual Plan 2007-08

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