

# DEVELOPMENT ACTIVITIES



**BARIND MULTIPURPOSE DEVELOPMENT AUTHORITY  
RAJSHAHI**

**December'2021**

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## **Background of BMDA :**

The part of greater Rajshahi, Dinajpur, Rangpur and Bogra District of Bangladesh and the Indian territorial Maldah District of West Bengal is geographically identified as Barind Tract. The hard red soil of these areas is very significant in comparison to that of the other parts of the country.

The Rajshahi Barind Tract is located in between 24 degree 23 minute to 25 degree 15 minute north latitude and 88 degree 2 minute to 88 degree 57 minute east longitude. A typical dry climate with comparatively high temperature prevails in Barind area except for the wet season beginning from mid June to October. Rainfall in the area varies from about 1500 mm to 2000 mm. Temperature ranges from 4 degree Celsius to 44 degree Celsius. The total cultivable area being 1.44 million acres, out of which 34% is loamy, 10% is Sandy, 49% is clayed and the rest of 7% is others. Out of the total cultivable land, 84% are single cropped, 13% are double cropped and the rest are triple cropped. The cropping intensity was 117%.

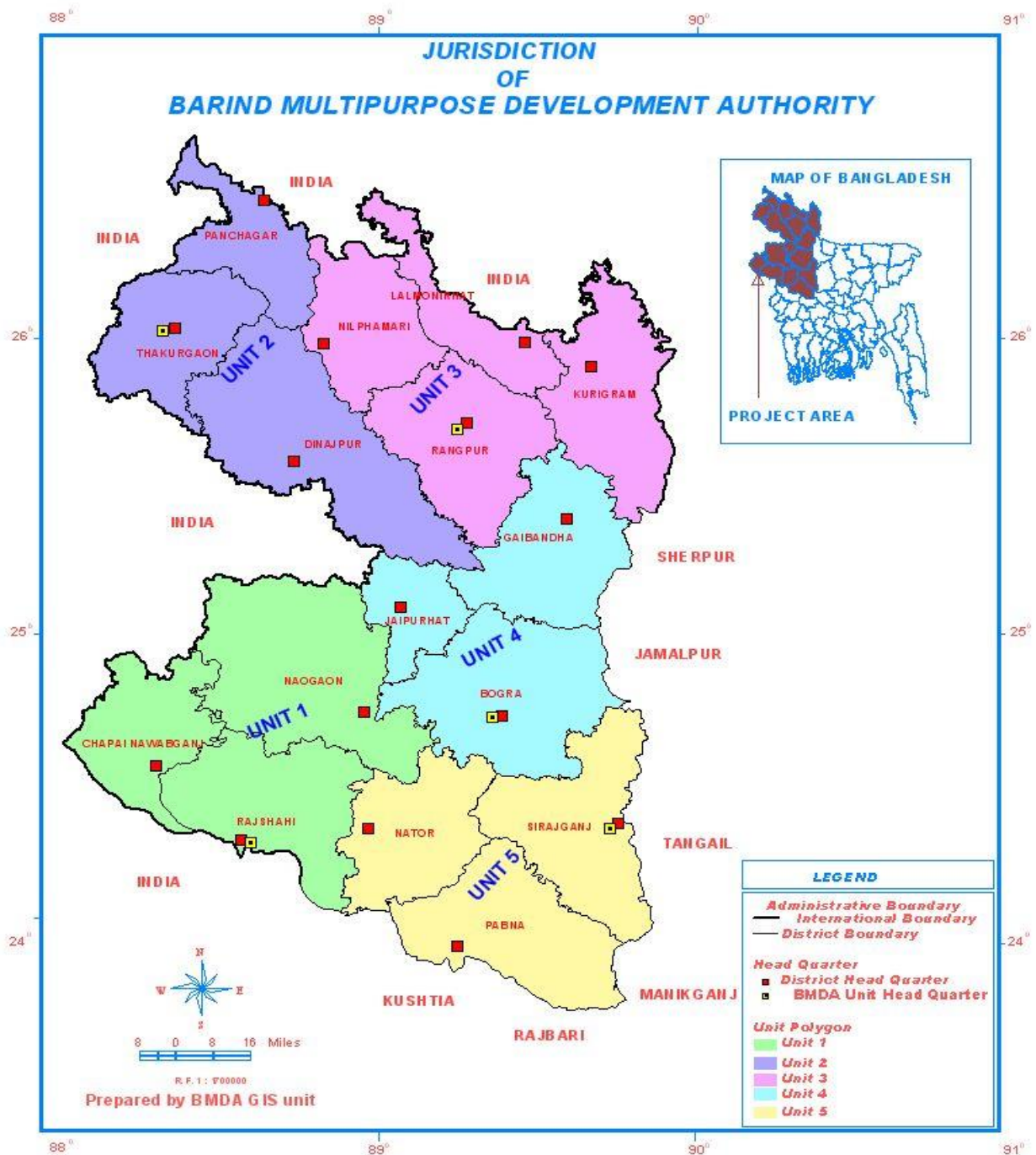
The Rajshahi Barind Tract was much flourished and the Socio-economic activities were much better in comparison to that of the other part of the country before 1947. In that time the area was well communicated to Kolkata, the capital city of west Bengal, now in India. Trade and commerce was much dependent on Kolkata and this Region was the hinterland of Kolkata port.

After partition of India communication, trade and commerce of this region with Kolkata was ceased totally and all the socio-economic activities almost came to a halt. As there was no well road linkage to the other part of the country, even to capital city Dhaka; no effort could make any development or any upliftment of the socio-economic structure of this region. As days passed by, this tract of land had fallen behind in all phases of development and economic activities could not be generated much. Further, the latest development in industrialization within the country could not make any headway in this Region. As a result the standard of living of the people of this region came to a lower level compared to that of the other parts of the country.

In 1985 the Government approved a project named “Barind Integrated Area Development Project” under the Bangladesh Agricultural Development Corporation. In 1990 the project was declared complete using only 26% of the fund allocated. On completion of the project a review was conducted and to speed up the development project implementation of the Barind area a separate authority was created named **Barind Multipurpose Development Authority (BMDA)** on 15 th January 1992 under the ministry of Agriculture. Till Now The authority has so far implemented 44 (Forty-four) development projects.

## Jurisdiction of BMDA :

According to the resolution, forming BMDA, firstly all the highland which are normally free from flood and draught prone area of Rajshahi Division are under the Jurisdiction of BMDA. At present the Act of the Authority has passed by the Government on 1st October 2018 named “BMDA Act-2018”. According to the Act, all the districts (Rajshahi, Chapai Nawabganj, Naogaon, Joypurhat, Bogra, Sirajganj, Pabna and Natore) of Rajshahi Division and all the districts (Thakurgaon, Dinajpur, Panchagar, Rangpur, Kurigram, Nilfamari, Lalmonirhat and Gaibandha) of Rangpur Division are under the development Programme of **Barind Multipurpose Development Authority (BMDA)**.



## **Scope of BMDA :**

The Development priorities of the Barind Area particularly concerning the development of Agriculture include:-

- a) To ensure the development of ground & surface water resource and its proper use for irrigation.
- b) Agricultural mechanization, seed production & supply and crop diversification.
- c) Afforestation to achieve environmental and ecological balance.
- d) Construction of connecting road in small scale & maintenance for marketing of agricultural product.
- e) Installation of irrigation equipment and supply of pure drinking water to the human habitation.
- f) Complete the contract with the approval of the Government.
- g) Research and training.
- h) Other activities .....

## **Total Development activities under various projects of BMDA:**

<b>Development activities</b>	<b>Achievement</b>
Installation of DTW	11474
Activating Inoperable DTW (Nos.)	4332
Installation of LLP (Solar+Electric) (Nos.)	(192+440) 601
Irrigation Water Distribution System (Km.)	12413.56
Extension Irrigation Water Distribution System (Km.)	1271.30
Re-excavation of Canals (km.)	2093.32
Re-excavation of Derelict Ponds (Nos.)	3451
Construction of Cross dam (Nos.)	749
Digging of Dug Well with solar energy (Nos.)	578
Feeder Road Construction (Km.)	1143.71
Drinking water supply from irrigation DTW (Nos.)	1579
Construction of Foot over Bridge (Nos.)	17
Construction of Cattle cross culvert (Nos.)	27
Construction of Light Culvert (Nos.)	8
Afforestation (Lakh)	260
Farmer training (Person)	151992
Utilization of irrigation equipment in 2020-2021 (Nos.)	DTW 15537+LLP 519
Irrigated area in 2020-2021 (Lakh Hec)	5.32
Irrigation charge realization in 2020-2021 (Tk. Lakh)	18153.25
Utilization of irrigation equipment in 2021-2022 (Nos.)	DTW 13203+LLP 337
Irrigated area in 2021-2022 (Lakh Hec)	1.07
Irrigation charge realization in 2021-2022 (Tk. Lakh)	2925.56

# ACHIEVEMENTS OF BARIND AUTHORITY AT A GLANCE

## A. ONGOING PROJECTS

### 1. **Expansion of Irrigation in Natore District Through Best Uses of Surface Water and Conservation of Rain Water, (July-2019- December'2023). Estimated cost as per DPP Tk. 17557.52 lakh.**

**Objective of the project :**

- a) Increasing surface water reservoirs, conservation water, its use in irrigation works, reduction stress in ground water and enhancement of ground water recharge through re-excavation of derelict canals.
- b) Make agriculture via drainage on 447 hectares of arable land.
- c) To increase the use of renewable energy and reduce the pressure on electricity by setting up solar powered LLPs.
- d) Production of drought tolerant and vibrant consumer crops (onion, garlic, cucumber, eggplant, sweet lava, pumpkin, gossip, melons, vegetables etc.) and limiting the excessive use of ground water by digging dugwell.
- e) 30816MT additional crop production in 7257 hectare of land by providing low cost and planned irrigation.
- f) Creating additional forest resources, increasing the supply of nutrients and supporting the improvement of environment by planting 1.50 lac fruits and medicinal plants.
- g) Providing training to 600 ideal farmers on modern agriculture, irrigation infrastructure, moderate use of ground water and surface water.

(Lakh Taka)

Components	DPP Target	Achievement up to December, 2021	For the year 2021-2022			Cumulative Expenditure (% of PP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical %	
Plantation (Fruit, Forest & Medicinal Plants) (Nos.)	150000	102000	3450.00	1725.00	1287.94 (37.33%) 46.49%	5529.411 (31.49%) 33.89%
Farmers training (Person)	600	400				
Construction of footover bridge (Nos.)	30	26				
Drainage canal & cattle cross culvert construction (Nos.)	60	21				
Construction of uPVC pipeline for LLP (Nos.)	60	27				
Extension of uPVC pipeline (610 m. each) (Nos.)	100	70				
Construction of water distribution system for Dugwell (360 m. each) (Nos.)	50	22				
Re-excavation of khal/khari (49493 cum/km) (Km.)	155	42.50				
Digging of Dugwell (120-130 ft) (Nos.)	50	22				
Construction of uPVC drainage canal for elimination of Water Logging (M.)	2500	845				

### 2. **Minor irrigation through pond re-excavation and surface water augmentation; (July,2019 - December,2023). Estimated cost as per DPP Tk. 12818.75 lakh.**

**Objective of the project :**

- a) To increase water holding capacity by re-excavating khas pond/dighi for multipurpose uses and enhancement of ground water recharge.
- b) To create opportunities for irrigating 3058 hectares of land through conservation and use of rain water/surface water and to produce additional 18348 MT. crops.
- c) To create opportunities for fish farming through water conservation and additional 1088 MT. of fish production.
- d) To increase the use of renewable energy by installing solar pumps for irrigation.
- e) To improve the environmental condition by afforestation.
- f) To facilitate the job opportunities for the marginal farmers.

(Lakh Taka)

Components	DPP Target	Achievement up to December, 2021	For the year 2021-2022			Cumulative Expenditure (% of DPP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical %	
Re-excavation of pond (Nos.)	715	335	2450.00	1225.00	1201.26 (49.03%) 60.98%	4578.26 (35.72%) 46.84%
Re-excavation of dighi (Nos.)	10	4				
Repair of Zonal Office building. (Nos.)	10	10				
Construction of uPVC pipeline (Nos.)	80	45				
Plantation (Fruit, Forest & Medicinal) (Nos.)	150000	75000				

**3. Minore Expansion of Irrigation in Greater Rangpur District Through Best Uses of Surface Water and Conservation of Rain Water; (October-2019- December'2024).**

**Estimated cost as per DPP Tk. 25056.63 lakh.**

**Objective of the project :**

- a) Increasing surface water reservoirs, conservation water and its use in irrigation through re-excavation of canals, ponds & beels.
- b) Make agriculture via drainage on 350 hectares of arable land.
- c) 83400MT additional crop production in 10250 hectare of land by providing low cost and planned irrigation.
- d) To increase the use of surface water for irrigation through 130 nos. of LLP's.
- e) To increase the use of renewable energy and reduce the pressure on electricity by setting up solar powered LLP's.
- f) Production of low water consuming crops by digging 50 nos. solar powered dugwells.
- g) Creating additional forest resources, increasing the supply of nutrients and supporting the improvement of environment by planting 2.30 lac fruits, forests and medicinal plants.

Components	DPP Target	Achievement up to December, 2021	For the year 2021-2022			Cumulative Expenditure (% of PP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical%	
Plantation (Fruit, Forest & Medicinal) (Nos.)	230000	79000	4140.00	2070.00	1451.27 (35.05%) 43.78%	5131.025 (20.48%) 24.77%
Farmers training (Person)	1125	775				
Construction of Divisional Office Building (Nos.)	1	0				
Construction of Regional Office Building (Nos.)	1	0				
Construction of Zonal Office Building (Nos.)	8	4				
Re-excavation of khal/khari (km.)	230	36.00				
Re-excavation of Beel (Nos.)	11	2				
Re-excavation of Pond (Nos.)	118	15				
Construction of Sub-merged weir (Nos.)	10	0				
Construction of Footover Bridge (Nos.)	20	1				
Digging of DugWell with pipeline (Nos.)	50	19				
Construction of uPVC pipeline (Km.)	130	24				
Construction of drainage canal & cattle crass culvert (Nos.)	50	15				

**4. Enhancement of Irrigation Through Surface Water Augmentation in Greater Dinajpur & Joypurhat District.; (October-2020- June'2025). Estimated cost as per DPP Tk. 25114.79 lakh.**

**Objective of the project :**

- 1) Bringing non-irrigated land of the project area under irrigation.
- 2) Expansion of irrigation and removal of waterlogging by creating water reservoir & conserving rain water. For this-
  - a) Re-excavation of 200 km Khals & 60 nos. waterbody and construction of 25 nos. submersedweir
  - b) Installation of 165 nos. solar/electric LLPs and other facilities in the project area.
  - c) To produce 1.7 lakh MT crop every year by irrigating 23340 hectares of land using 165 nos. of solar/electric LLP.
  - d) Bringing 306 hectares submersed land under agricultural production by removing waterlogging.
  - e) Ensuring low water consuming crop /vegetable production by excavating 60 nos. of Dugwells.
  - f) Reduce the use of electricity for irrigation,through the use of renewable solar energy.
  - g) To create additional forest resources, meet nutritional needs and help in environmental development by planting 2 lakh fruit, forest and medicinal trees.
  - h) To create oppourtunities for farmer training and self-employment in the project area.

Components	DPP Target	Achievement up to December, 2021	For the year 2021-2022			Cumulative Expenditure (% of PP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical%	
Plantation (Fruit, Forest & Medicinal) (Nos.)	200000		4650.00	2325.00	2309.14 (49.66%) 58.06%	2803.135 (11.16%) 12.74%
Construction of Zonal office building (Nos.)	4	1				
Construction of Godaon Com Zonal office building (Nos.)	5					
Construction/repair of office boundary (Nos.)	5					
Digging of DugWell (120-130 ft) with Solar and Water distribution system (Nos.)	60					
Re-excavation of khal/khari (km.)	200					
Re-excavation of Water Body (Nos.)	60					

Construction of Sub-merged weir (Nos.)	25			
Construction of uPVC Pipeline (250mm dia) with LLP (Nos.)	140	16		
Construction of uPVC pipeline (200mm dia) with LLP (Nos.)	25			
Extension of uPVC pipeline (250mm dia) Each-590m (Nos.)	1000	200		
Construction of RCC sign board (Nos.)	250			
Water drainage Pipe Line (625mm dia) (Nos.)	2.50			
Construction of Electric Lines with LLP (Nos.)	30			
Installation & Commissioning of Electric Transformer (Nos.)	30			
Construction of RCC Drainage (Nos.)	200			

**5. Popularize of High Value Unconventional Fruit & Medicinal Crop in Barind Area Project; (July-2020-June'2025). Estimated cost as per DPP Tk. 1733.82 lakh.**

**Objective of the project :**

- For the sake of establishing high value non-conventional fruits and medicinal crops garden in farmers' own land or homestead area disburse saplings free of cost.
- Establishment of demonstration farms of high value non-conventional fruits and medicinal crops in the Barind area..
- Provide training to farmers / officers-staffs on production of high value fruit and medicinal saplings, planting etc.

(Lakh Taka)

Components	DPP Target	Achievement up to December, 2021	For the year 2021-2022			Cumulative Expenditure (% of PP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical%	
Farmer's Training (Person)	1500	420	310.00	155.00	126.13 (40.69%) 50.76%	277.846 (16.03%) 21.60%
Officer/Employee Training (Person)	310	120				
Foreign Training (Person)	3					
Demonstration farming (Nos.)	52	26				
Purchase of sapling (Nos.)	415000	95000				
Purchase of seeds (Nos.)	2000	1282				

**6. Feasibility Study on "Conservation of Ground Water and Raising Its Use Efficiency and Productivity in Irrigated Agriculture in Bangladesh"; (July' 2020 - June' 2023). Estimated cost as per DPP Tk. 41.22 lakh.**

**Objective of the project :**

- Assist in policy formulation to create necessary economic incentives for transition from low efficient, low productive and wasteful water management through the proposed project.
- Increase the need, efficiency and productivity of water used for irrigation in deep tube well areas of BMDA and BADC through proposed water management based on 5 components (water quantity based irrigation charge, smart card, AWD technology, water supply efficiency, community based water management).
- Conducting studies on shallow tube wells and deep tube well irrigation in the private sector through data collection and analysis to determine how to make the irrigation water market more efficient and productive in all these fields.

(Lakh Taka)

Components	DPP Target	Achievement up to November, 2021	For the year 2021-2022			Cumulative Expenditure (% of PP Allocation) Physical %
			ADP Allocation	Fund released	Expenditure (%) physical%	
Purchase of UPVC pipes with necessary equipment and installation of pipelines	LS	LS	19.00	9.32	6.95 (36.58%) 36.58%	21.872 (53.06%) 53.25%
Outlet structure construction work	LS	LS				
User card	LS	LS				

## **B. LIST OF COMPLETED PROJECT**

<b><u>Project Name</u></b>	<b><u>Allocation &amp; Expenditure (Lakh Tk.)</u></b>	<b><u>Components</u></b>	<b><u>Achievement</u></b>
1. Barind Integrated Area Development Project-Phase-I (1985-1990)	39497.75 & 10411.00 (26.36%)	a) Installation of DTW (nos.) b) Re-excavation of Ponds (nos.) c) Re-excavation of Canals (miles) d) Water Distribution System (nos.) e) Electrification of DTW (nos.) f) Construction of Feeder Road (km.) g) Aforestation (Lakh)	1512 1170 6.50 26 10 47.98 49.21
2. Barind Integrated Area Development Project-Phase-II (1990-2001)	49168.00 & 46512.96 (94.60%)	a) Installation of DTW (nos.) b) Re-excavation of Derelict Ponds (nos.) c) Re-excavation of Canals (km.) d) Construction of Cross dam (nos.) e) Irrigation Water Distribution System (nos.) f) Electrification of DTW (nos.) g) Feeder Road Construction (km.) h) Aforestation (lakh)	3536 784 40.50 30 2074 3040 65.85 84.21
3. Fine Rice Production Project in Barind Area (1995-2001)	197.00 & 137.52 (69.81%)	a) Seed Procurement (MT) b) Seed Distribution (MT.) c) Farmers Training (nos.) d) Demonstration plot (nos.)	43.70 25.65 2679 142
4. Rural Drinking Water Supply (PILOT) Project (1995-1997)	161.50 & 161.50 (100%)	Drinking Water Distribution System Construction (nos.)	26
5. Barind Rural Road Development Project-Phase-I (1994-2000)	12600.00 & 12520.10 (99.37%)	a) Construction of Feeder road (Km) b) Construction of Culvert, Bridge (Nos.) c) Aforestation (Lakh)	335.38 186 14.15
6. Barind Bridging Project (2001-2003)	2133.00 & 2000.00 (93.76%)	a) Re-excavation of pond. (Nos.) b) Re-excavation of canal (Km) c) Construction of Cross Dam (Nos) d) Rehabilitation of DTW (Nos.) d) Sapling (lakh)	80 12.80 8 130 4.00
7. Barind Rural Road Development Project-Phase-II (2000-2003)	1901.00 & 1832.62 (96.40%)	a) Construction of Feeder road (Km.) b) Construction of Culverts (Nos.) e) Aforestation (Lakh)	37 22 (162M.) 0.10
8. Intensive Aforestation Project (1997-2004)	958.40 & 957.56 (99.91%)	a) Aforestation i) Fruit trees (lakh) ii) Forest trees (lakh)	5.56 21.66
9. Repair/Rehabilitation of Deep tube well Project in Greater Dinajpur District Under Post-Drought Agricultural Rehabilitation Programmer (2003-2004)	1087.83 & 1087.83 (100%)	Rehabilitation of DTW (Nos)	1217
10. Barind Command Area Development And Training Project of (1996-2006)	13804.56 & 13804.56 (100%)	a) Water Distribution System (nos.) b) Farmers training (Person)	2600 30000
11. Barind DTW Electrification Project (1996-2006)	14862.70 & 14862.66 (100%)	a) Electrification of DTW (Nos.) b) Electric Pump purchase (Nos.) c) Construction of sub-station (Nos.) d) Supply & Installation of 3/15 KVA 11/0.4 KV distribution sub-station (Nos.) e) Supply & Installation of 3/10 KVA 11/0.4 KV distribution sub-station (Nos.) f) Rehabilitation of 11/0.04 KV, 3/15 & 3/10 KV distribution sub-station (Nos.)	2203 2203 5 495 1708 330
12. Barind DTW Installation Project (2001-2006)	13050.00 & 13050.00 (100%)	a) DTW installation (Nos.) b) Test well sunk (Nos.)	1650 Nos (2200 cusec) 100 nos



<b>Project Name</b>	<b>Allocation &amp; Expenditure (Lakh Tk.)</b>	<b>Components</b>	<b>Achievement</b>
13. Bangladesh Fine Rice Production & Marketing Programme (2004-2006)	250.00 & 98.38 (39.35%)	a) Training (Person) b) Seed supply and procurement (MT). c) Setting of demonstration Plot (Nos).	1817 40 70
14. Eco-System Management in Barind Areas (1999-2006)	754.21 &	a) Aforestation (lakh sapling) b) Re-excavation of pond (Nos.) c) Re-excavation of canal (Km) d) Cross Dam (Nos.) e) Excavation of Mini ditch. (Nos) f) Water sealed latrine (Nos.) g) Pilot-Home lighting (set) h) Pilot-Biogas plant (Nos.) i) Drinking water supply system j) Established of Eco-village (Nos.) k) Mini Eco-Park (Nos.)	5.55 43 16.50 11 430 96 23 20 12 9 1
15. Drinking Water Supply from Irrigation Deep Tubewell Project (2002-2007)	4124.66 & 4124.53 (100%)	a) Water supply installation (Nos.) b) Water supply installation extension (Nos.)	282 27
16. Command Area Development & Training Project, Unit-2, Thakurgaon (2003-2008)	9748.50 & 9700.50 (99.51%)	a) Burried Pipe Line (Nos) b) Water supply installation (Nos.) c) Sprinkler Irrigation system (Nos.) d) Farmers training (Person)	1217 12 1 12000
17. Barind Rural Road Development Project, Phase-3 (2003-2008)	10000.00 & 9999.76 (100%)	a) Construction of Road (Km.) b) Construction of Bridge/Culvert (Nos.) c) Construction of Office Building (Nos.) d) Road/Culvert repair/maintenance (Km.) e) Aforestation (Lakh.)	237.50 87 3 686 3
18. Aforestation Program for Ecological Balance in Unit-2 Area of Barind Project (2005-2008)	867.69 & 858.26 (98.91%)	a) Aforestation : i) Fruit tree (lakh) ii) Forest trees (lakh) b) Nursery establishment (Nos.) c) Training (Person)	3.00 10.00 13 2030
19. Deep Tubewell Installation Project, Unit-2, Thakurgaon. (2005-2010).	15995.00 & 15994.61 (100%)	a) DTW installation (Nos.) b) Electrification of DTW (Nos.) c) Water distribution System (Nos.) d) Training (Person)	1100 1100 1100 5000
20. Barind Rain Water Conservation & Irrigation Project. (2004-2010)	15117.13 & 15116.81 (100%)	a) Re-Excavation of Canals (Km.) b) Re-Excavation of Derelict Ponds (Nos.) c) Construction of X-Dam (Nos.)	1000 800 555
21. Smart Card Based Pre-paid Pump Usage & Energy Measuring System Project. (2008-2010)	1567.31 & 1567.06 (100%)	a) Pre-paid Meter (Nos.) b) Smart Card (Nos.) c) Mobile Vending Unit (Nos.) d) Card reader e) Server with necessary equipment f) Tower Installation/construction	3000 30000 100 25 4 9
22. Quality Seed Production Project on Farmer Level (2006-2011)	1032.40 & 1031.77 (99.94%)	a) Seed production, procurement, processing & marketing (MT) b) Foundation/breeder seed procurement (MT) c) Training (Person) d) Demonstration Plot (nos.)	2000 65 12600 625
23. Barind Environmental Balance Restoration Through Afforestation Project (2006-2011)	2252.43 & 2251.80 (99.97%)	a) Afforestation (i) Fruit (Lakh) (ii) Medicinal & Forest (Lakh) b) Training (Person) c) Nursery establishment (Nos.)	16.80 18.70 1042 25

<b><u>Project Name</u></b>	<b><u>Allocation &amp; Expenditure (Lakh Tk.)</u></b>	<b><u>Components</u></b>	<b><u>Achievement</u></b>
24. Capacity Building & Resource Mobilization for Sustainable Land Management (Eco System Management) in Bangladesh (SLMP, Barind Part) (2009-2011)		a) Green Manuring (Kg.) b) Compost Heap (Nos.) c) Eco-village (Nos.) d) Plantation (Nos.) e) Water sealed latrine ( nos.) f) Tissue culture lab. (No) g) bio-gas plant (Nos). h) Re-excavation of pond (Nos.) i) Training (Person )	1330 20 5 2486 10 1 2 2 75
25. Barind Integrated Area Development Project-Phase-III (2007-2012)	28428.00 & 28424.62 (99.99%)	a) Installation of DTW (nos.) b) Water Distribution System (nos.) c) Electrification of DTW (nos.) d) Aforestation (Lakh)	2000 2000 2000 0.12
26. Fine Rice Production & Marketing Programe (2009-2012)	368.57 & 361.71 (98.14%)	a) Seed procurement, processing, preservation & marketing (MT) b) Foundation/breeder seed procurement (MT) c) Training (Person) d) Demonstration Plot (nos.)	416.82 3.27 16000 390
27. Drinking Water Supply from Irrigation Deep Tubewell Project (2008-2012)	9302.76 & 9302.26 (99.99%)	a) Water supply installation (Nos.) b) Water supply installation extension (Nos.) c) Training (Person)	695 24 1500
28. Command Area Development & Training Project, Phase-2 (2008-2013)	16154.23 & 16123.42 (99.80%)	a) Burried Pipe Line (Nos) b) Farmers training (Person)	2500 23500
29. Command Area Extension & Development Project (2010-2013)	5124.59 & 5074.06 (99.01%)	a) Extension of Burried Pipe Line (Nos) b) Rehabilitation of DTW (Nos.) c) Farmers training (Person)	1000 100 6500
30. Activating Inoperable DTW for Irrigation Project (2008-2014)	19913.09 & 19903.32 (99.95%)	a) Activating Inoperable DTW(Nos.) b) Water Distribution System (nos.) c) Electric line construction (Nos.) d) Pre-paid Meter installation (Nos.) e) Hose/Fita Pipe (Km.)	2415 2415 2113 400 20
31. Irrigation programme through surface water augmentation (2013-2016)	4060.94 & 4060.08 (99.98%)	a) Re-excavation of Canal (Km.) b) Construction of X-Dam (Nos.) c) Installation of Pontoon (Nos.) d) Installation of LLP (Nos.) e) Water Distribution System (nos.) f) Hose/Fita Pipe (Km.)	30 7 2 117 117 10
32. Smart Card Based Pre-paid Pump Usage & Energy Measuring System Project. (2008-2016)	1908.82 & 1847.68 (96.80%)	a) Pre-paid Meter (Nos.) b) Smart Card (Nos.) c) Mobile Vending Unit (Nos.) d) Card reader	4100 82000 160 34
33. Panchagar, Thakurgaon, Dinajpur and Joypurhat Integrated Area Development Project (2010-2017)	23225.45 & 23216.35 (99.96%)	a) Installation of DTW (nos.) b) Water Distribution System (nos.) c) Extension of Burried Pipe Line (Nos) d) Electrification of DTW (nos.) e) Re-excavation of Canal (Km.) f) Re-excavation of Ponds (Nos.) g) Construction of X-Dam (Nos.) h) LLP installation with irrigation chanel i) Aforestation (Lakh) j) Farmers training (Person)	790 790 725 790 112 11 10 80 8.00 10400

Project Name	Allocation & Expenditure (Lakh Tk.)	Components	Achievement
34. Deep tubewell Installation project, Phase-ii; (January'2010-June'2018).	27403.96 & 27400.58 (99.99%)	a) Installation of DTW (nos.) b) Water Distribution System (nos.) c) Extension of Burried Pipe Line (Nos) d) Electrification of DTW (nos.) e) Re-excavation of Canal (Km.) f) Construction of X-Dam (Nos.) g) LLP installation with irrigation chanel h) Construction of Dugwell (Nos.) i) Irrigation chanel for Dugwell (360 M.) (Nos.) j) Aforestation (Lakh) k) Farmers training (Person)	1115 1115 1115 1115 40.00 2 25 20 20 0.80 3000
35. Marketing agricultural product through development of rural communication project, (October 2010-June 2018).	33695.69 & 33683.88 (99.96%)	a) Construction of Feeder Road (Km.) b) Periodic maintenance of constructed road (Km.) c) Construction of culvert (Nos.) d) Aforestation (Lakh) i) Forest 3.14 & ii) Fruits 0.52	420 744 108 (382 M.) 3.14 & 0.52
36. Barind rain water conservation & irrigation project, Phase-ii; (March-2011-June 2018)	19999.57 & 19995.87 (99.98%)	a) Re-excavation of Canal (Km.) b) Re-excavation of pond (Nos.) c) Re-excavation of Dighi (nos.) d) Construction of X-Dam (Nos.) e) Construction of Dugwell (Nos.) f) LLP installation with irrigation chanel g) Soler irrigation system (Nos.) h) Construction of rubber dam (no.) i) Construction of rechargewell (nos.) j) Aforestation (Lakh) i) Forest & ii) Fruits	600 200 6 97 110 69 46 1 (62 M.) 5 6 & 2
37. Rehabilitation of old Deep tubewell in Rajshahi, Chapai-nawabgonj & Naogaon districts; (February'2014-June'2018).	7724.90 & 7622.57 (98.68%)	a) Rehabilitation of old DTW (nos.) b) Installation of ground water monitoring Data logger (nos.) c) Construction of electric & buried pipe line (Nos.)	600 25 400
38. Extension of irrigation in Barind area through conservation of water in cannel; (January'2015-June'2018)	11613.00 & 11612.22 (99.99%)	a) Re-excavation of Canal (Km.) b) Re-excavation of pond (nos.) c) Construction of X-Dam (nos.) d) Construction of pipe line (M.) e) LLP installation (nos.) f) Installation of solar pump (15 hp) (nos.) g) Aforestation (Lakh)	38.85 7 16 181000 57 106 0.80
39. Drinking Piped Water Supply from Irrigation Deep Tubewells, Phase-iii; (July'2013-June'2018)	11045.00 & 10698.595 (96.86%)	a) Water supply installation (Nos.) b) Water supply installation extension (Nos.)	550 50
40. Enhancement of Irrigation Efficiency Through Construction of Sub-surface Irrigation Channel; (July2015-June2019).	13616.20 13510.52 (99.22%)	a) Construction of underground irrigation channel ( km.); b) Farmers training (Person)	1080 3000
41. Extension of irrigation facilities by increasing availability of surface water and removing water logging in Naogaon District; (July 2015-June 2019).	7912.50 & 7894.60 (99.77%)	a) Re-excavation of Khalic/Khari (Km.) b) Re-excavation of Water body (Acre.) c) Construction of Submerged weir with foot bridge (Nos.)	92.20 14 13

42. Quality Seed Production, Distribution & Farmers' Training Project for crop production (1st Revised). (July 2015-June 2020)	1046.23 & 1045.00 (99.88%)	a) Seed procurement, processing, preservation & marketing (MT) b) Farmer Training (Person) c) Officer Training (Person) d) Demonstration Plot (nos.) e) Field Day (Nos.)	3000 5000 700 400 100
43. Excavation of Dug-well in Barind Area for cultivation of crops by soft Irrigation (Revised-1); (July 2016-June 2021).	5348.38 & 5347.756 (99.88%)	a) Excavation of dug-well (Nos.) b) Solar Panel Installation (Nos.) c) 1.5 Inch Dia uPvc Pipe Line construction (360 meter each) (Nos.)	420 420 420
44. Extension of irrigation facilities by augmentation of surface water and mitigation of water logging in Bagha, Charghat & Paba Upazillas of Rajshahi District; (October 2015-June 2021).	2987.06 & 2985.26 (99.94%)	a) RCC Retaining wall b) RCC Slab c) Footover bridge with gatevalve d) Heavy Culvert with gatevalve e) Light Culvert f) Structure for protection of river bank g) Sluice gate h) Re-excavation of Khas Khal/Khari i) Digging of Dug well j) Water distribution system for Dug well k) Water distribution system for LLP	4035 100 7 2 8 1 1 21.50 20 20 10

## OUTPUT

Development Activities	Before Project	After Project (Rajshahi Barind)
Irrigated area (lakh hectare) Boro	0.52	3.36
Percentage of Irrigated area (as per cultivated area)	13%	57.57%
Cropping intensity (in the command area)	117%	230%
Yearly benefited farmer family (lake)	1.10	5.46
Yearly production crop (lake tons.)	7.56	34.32
Yearly additional crop yield (lake tons.)	-	26.76
Value of additional crop (Crore taka)	-	4348.50
Yearly average rainfall (inch)	54.99	64.00

**Potential of Rajshahi Barind area if all cultivable land  
brought under irrigation**

(a)	Total cultivable land in the project area	5.83 lakh ha.
(b)	Present production (M.T) (non irrigated)	34.32 lakh <u>26.76 lakh</u>
	=> Yearly additional production in irrigated area (M.T)	61.08 lakh
	If all 5.83 lakh ha. cultivable land comes under irrigation, production will be	Total 68.90 lakh M.T.
(c)	=> Expected Yearly additional production will be	24.48 lakh M.T
(d)	=> Value of additional yield per year	4348.50 Crozes TK.