

WATER

WATERSHED ASSOCIATION FOR TRAINING, EMPLOYMENT AND
RESOURCE UTILIZATION

NATURAL RESOURCE MANAGEMENT & TECHNOLOGY TRANSACTION

ANNUAL REPORT 2016

Estd : 1990

Rgd No: S33251 of NCT Delhi,1998



WATER

Watershed Association for Training Employment & Resource utilisation

Centre for Research, Training, development & Environmental management.

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ANNUAL REPORT

2016-17

Background Information

WATER (Watershed Association for Training Employment and Resource utilization), New Delhi was founded (1990) by Dr. D. K. Paul [Former Additional Commissioner (Govt of India) and ADG (IWM), ICAR]. While as Officer-in-Charge (founder and the first O/C of the newly started) Central Upland Rainfed Rice Research Station, ICAR, WATER initially was started as an entertainment, educational and sports club for youth of the surrounding villages adjacent to Hazaribagh Town. Over the years looking to the demand of the villages around it, objectives were broadened and gradually transformed to become a Service Resource Organization to undertake technology transfer agent on rice based farming system, watershed/rain water management/ rural development, health, and & family care etc. Idea was to take up awareness and implementing key initiatives such as ‘Climate Change adaptation’, ‘Dialogue on Water, Food and Environment’, ‘The Comprehensive Assessment of Water Management for Agriculture’, and meet the Challenge on Water and Food which are making a major concern to both the understanding and the management response to the water crisis as it relates to agriculture, health and environment. Influenced by IWMI’s new Strategic Plan 2004-2008, food and water management under drought and water scarcity condition has gained importance. WATER is concerned with the overarching developmental and research question for India : *how can we grow more food and sustain rural livelihoods with less water in a manner that is socially acceptable and environmentally sustainable manner.*

WATER is striving to press the idea of overall development with employment generation activities especially in the high potential backwards states (important for social harmony in Maoist and Naxal affected areas) focusing sustainable productivity improvement with market oriented economy with bio regenerating natural resources and its management especially water management on scientific line to further rural industrialization to reduce poverty. It especially focuses on the technical & commercial management aspects and capacity building of NGOs/farmers/SHGs for area development programs. The Association initially worked only at Hazaribagh Jharkhand, till 1996 and subsequently registered as an All India non profit research cum developmental Association at National Capital Territory of Delhi vide Reg. No.S-33251 of dated 13.7.1998, to enlarge its philosophy, ideas, activities & objectives.

Aims and Objective

WATER seeks to enable various stake holders like NGOs, PIAs, SHGs and User Groups to realize this vision into a reality through real time networking. Modus operandi is to tie with existing ongoing projects, resource/research organisations, scientist/resource persons, developmental experts, financial institution to supplement each other and bring them to a common meeting point for pro village/poor and grass root reality. The idea is to help in solving the problem of the area/watershed concerned gradually and sustainability on scientific line with latest scientific/research findings by the people themselves.

Over the years WATER had been working in the field of technology transfer, environment, agriculture, horticulture and processing, soil and water conservation, water harvesting and watershed development, agro forestry and nursery raising, literacy, health (Pulse polio immunization, AIDs awareness, family planning and welfare), women and child development, urban poverty alleviation etc

Activities

WATER is presently engaged in voluntary Research & Developmental Projects and developmental activities at various state chapters including WATER Head Quarters at Delhi (South-West):

WATER is registered with **Bhagidari Cell of Delhi Govt.** and working on all aspects of Bhagidari activities like Pulse Polio Immunization/Aids Awareness/Rehabilitation, Citizen Grievance Redressal at Municipality Council of Delhi (MCD) /Delhi Police/Delhi Development Authority (DDA)/on r urban waste management, Jhuggi Jhopri (JJ Cluster) and Slum development and literacy/adult education works in Delhi NCT Region

WATER a collaborating partner of IARI, PUSA Institute in the developmental initiatives “**Climate Change Adaptation**” Project as Consortium partner in the World Bank-Global Environmental Facility (WB-GEF) funded ‘Strategic Intervention in Agriculture for Climate Change Adaptation, at MEWAT, Haryana, for the dry land eco system at 4 clusters of villages (9 Nos) at Nuh Block.

Integrated Rice-based Farming System with Water Management Technologies; Giridih, Jharkhand

Influenced by IWMI’s new Strategic Plan, water management under drought and water scarcity condition and ‘the Challenge Program on Water and Food’ which are making a major contributions to both the understanding and the management response to the water crisis as it relates to agriculture, health and environment has gained importance. In this project the **main objective has been to improve surface water and groundwater management through taking new concepts and approaches as well as sharing experience of other countries in the world of South Asia and China.**

DOLR Funded Technology Extension and demonstration ---“*Demonstration, extension and training of water management technology (TOT) for productivity improvement and economic sustainability of aqua-terrestrial farming system on wastelands under humid areas of West Bengal*”. **Burdwan West Bengal, funded by DOLR, Ministry of Rural Development, GOI.**

Technology Extension and Demonstration (Water Management, More Crop per Drop), Farmers Participatory Action Research Programm (FPARP), Funded by Ministry of Water Resources, GOI, New Delhi at JHARKHAND named --“Community led water conservation and productivity improvement on farming system approach in drought prone sub-humid chhotanagpur region through demonstration of improved rainwater harvesting and ground water recharging techniques” at 7 districts of Jharkhand (2007-2010), funded by Ministry of Water Resources, GOI, New Delhi.

INTEGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP), WEST

BENGAL -- WATER has been declared as Project Implementing Agency by the WBSWDA vide Govt of West Bengal. Accordingly WATER has taken up various Preparatory phase subsequently Work phase project activity as per Annual Action Plan approved each year.

WATER had hired WDTs 4 in all of the 4 IWMP project as per GOWB/DOLR rules and trained and are being utilized for all the IWMP related activities in collaboration with Village Committee (Gram Sabha), Panchayat Samities and Block/ District Rural Development Agency.

WATER has completed the Entry Point Activities (EPA) in all of the villages totaling 128 nos after awareness programme and approval by Gram Sabha and Block (BDO)/ Panchayats and Watershed cum Development Cell(WCDC) at the DRDA at district.

WATER has taken up Institution and Capacity Building programme after due awareness and capacity building activities for WDTs, GP members, WC members, SHG and UGs and villagers and landless and marginal farmers.

WATER has completed all the 4 Detailed Project Report itself with marginal assistance from Experts hired by WATER.

WATER has completed the work phase activities (NRM, LSS and FPSE) for which the Watershed Committees and watershed Associations and SHG and UG groups are being utilized.

Infrastructure

WATER developed its HQ's at Delhi Goela Vihar Phase II, Goela Dairy Delhi--71. The Head Quarters building is equipped with lecture room, library, meeting hall, Unix computers, internet for networking, Fax/Xerox, typing etc. WATER has also developed infrastructure/facilities for long term initiatives/networking for voluntary social works at all the place of its activities/works for meaningful presence and has its own office and working spaces at WB, Jharkhand, Bihar, Haryana MP etc. At other places like Kerala, Rajasthan, UP, Assam, Mizoram, Nagaland etc.

Institutional Arrangements.

Presently WATER constituted a national Panel of Experts/Consultants (as per need) with the guidance of the Governing Body at the Head Office at New Delhi. Secretary of WATER is looking after the activities/works along with the Joint Secretaries/President/ Treasurer/ GB Members. At the State Chapters A State Panels of Experts and the Joint Secretary of State Chapter are nominated/hired experts/consultants and employed staffs are looking after the activities. WATER has developed extensive networking and liaison with Central Govt Ministries/State Departments and State Agricultural Universities (BCKVV Mohanpur, JNKVV Jabalpur, IGKVV Raipur, BHU Benaras, IIT Kharagpur/Delhi, BAU, Kerala Agricultural University(Vellanikata), ICAR Res Complex Barapani etc and other Resource and Voluntary Organizations)

The Association has taken up the following activities during the year as approved by the Governing Body vide their meetings held in April, 2015.

Completed Project 1

Integrated Rice-based Farming System with Water Management Technologies; Giridih, Jharkhand

IWMI-ICAR-IARI and its NGO partners have developed and are implementing key initiatives such as ‘Climate Change Adaptation’, ‘Dialogue on Water, Food and Environment’, ‘The Comprehensive Assessment of Water Management for Agriculture’, and ‘The Challenge Program on Water and Food’ which are making a major contributions to both the understanding and the management response to the water crisis as it relates to agriculture, health and environment. Influenced by IWMI’s new Strategic Plan, water management under drought and water scarcity condition has gained importance. The overarching developmental and research question for India is: how can we grow more food and sustain rural livelihoods with less water in a manner that is socially acceptable and environmentally sustainable?

The main objective has been to improve groundwater management through taking new concepts and approaches as well as sharing experience of other countries in the world with South Asia and China.

- **Socio-economic studies in the tribal areas revealed that livelihoods of the communities could greatly be improved through management of water resources.**
- **India’s Water Future in 2025/2050, strategies for sustainable scaling up of watershed development, assessment of system of rice intensification;**
- **water management issues in Eastern India**



Higher rice Productivity through S R I Cultivation

Completed Project No.

DOLR Funded Technology Extension and demonstration

“Demonstration, extension and training of water management technology (TOT) for productivity improvement and economic sustainability of aqua-terrestrial farming system on wastelands under humid areas of West Bengal”.Burdwan West Bengal, funded by DOLR, Ministry of Rural Development, GOI.

WATER is collaborating partner working in the project for wasteland development under Technology Development and Extension(TDEP) of Department of land resources,

Rural Development Ministry at Burdwan, West Bengal. In the Project : “Demonstration, extension and training of water management technology (TOT) for productivity improvement and economic sustainability of aqua-terrestrial farming system on wastelands under humid areas of West Bengal”. The prime implementing Government institution is Bidhan Chandra Krishi Viswavidyalaya, the State Agricultural University situated in Mohanpur, Dist. Nadia, West Bengal. The project is executed in collaboration with (i) WATER (Watershed Association for Training Employment and Resource utilization), Delhi & Nabagram, Burdwan for the Burdwan district; (ii) Taldi Netaji Sangha, P.O. Taldi, Canning, 24-Parganas (South) for 24 Par4ganas; (iii) Sarvodaya, P.O. Berhampore, Dist. Murshidabad, West Bengal for Murshidabad district and (iv) The BCKVV with Kalinarayanpur Panchayet at Nadia district,. The project aims to Integrated land and water management to improve productivity :for utilization of seasonally waterlogged areas/ponds. Ppopularization of improved rice based cropping system and fish culture in rice fields was undertaken in 3 villages in Burdwan, West Bengal. This intervention was adopted on the seasonally waterlogged fields where rice based farming system was adopted. In kharif 2007 to 2009 rice and fish in identified farm ponds numbering about 126 were taken up in villages of Nabagram, Mashagram and Jaugram, WB with improvement of total production of paddy by about 1.0 t/ha and fish by 1.88 t/ha was obtained from the field. Dr. Palanisamy said that tanks were an important source of irrigation in most of the southern and some eastern states. However, this important source of irrigation is under severe stress due to changing socio-cultural-economic conditions and inefficient maintenance and management. Rehabilitation and institutional issues are very important for making full use of this resource.



Rice with SRI technology.

The average annual profit per family was increased to Rs 3544 (25%) through crops and Rs 2844 (30%) through fishery/animal based activities

Wheat with better management

Intensive fish culture for diversification from rice based farming system to enhance the fish production (by 42%) has increased the farmers income and realized possibilities of further increase in fish and crop yield by little efforts by overcoming some of the constraints. Community water bodies were utilised for fish production in participatory mode. It created awareness, social cohesion and income from earlier unused water resource and reduced conflict. Due to increased social cohesion, the interest in participation of villagers in management of Common Property Resources (ponds, open well) has increased significantly

Drip irrigation in vegetables:Field experiments on vegetable crops for irrigation and fertigation scheduling for the two seasons indicated that irrigating tomato at 80% ET at 3 days interval was promising for better yield, fertigation of solid soluble fertilizers at the rate of 75 per cent of recommended dose resulted in optimum yield and saved 25% fertilizer dose.



Fruits and vegetable popularised at FPARP Projects SITES, JHARKHAND

Jalkund: Low cost water harvesting structure *Jalkund* of lined with black polythene was found to be efficient for harvesting of rain water and irrigating 12-15 saplings during summer months for establishment of horticulture and agro-forestry in West Bengal/Jharkhand condition.

Completed Project No.

“Technology Extension and Demonstration (Water Management, More Crop per Drop),Farmers Participatory Action Research Programm (FPARP), Funded by Ministry of Water Resources, GOI, New Delhi at JHARKHAND named

“Community led water conservation and productivity improvement on farming system approach in drought prone sub-humid chhotanagpur region through demonstration of improved rainwater harvesting and ground water recharging techniques” at 7 districts of Jharkhand (2007-2010), funded by Ministry of Water Resources, GOI,New Delhi.

WATER security is vital both for livelihood and food security. There is lot of scope for improving the water use efficiency in a manner that both the productivity and profitability of farming are enhanced without associated ecological harm. The primary causes for low yields in Jharkhand are lack of assured irrigation (12-16% irrigated areas) facilities, lack of practical low cost technical knowledge by farmers on water management and its adequate extension by the research/resource organization. In Jharkhand state, about 65-70% of the annual rainfall come from few intense storms, with a lot of surface run off loss. Period of intense rainfall is followed by short and long dry periods of 10-25 days with low yields of rainfed crops like rice(<1 ton per ha) in an area of 5million hectares. This emphasizes the need for conservation and efficient utilization of rainwater to improve the productivity of rainfed crops. Thus, development of a sustainable, economically sound and assured productive system in Chhotanagpur region is possible through conserving and managing

rainwater resources to the maximum extent and raise the the socio-economic condition of the farmers. Thus the project will be useful in a better arrangement of water resources under rainfed condition.

The Ministry of Water Resources(MOWR) had initiated a “**More Crop and Income per Drop of Water**” project under a Project Implementation Team (Chairmanship of Dr Palanisamy, Director, CARD). MOWR sanctioned funds to 63 Research agencies/NGOs including WATER to demonstrate productivity improvement for agricultural water use.

WATER was selected to carry out 70 demonstrations in the 7 district of Jharkhand (during 2007-2008 in 3 crop seasons) under the **Project Proposal “Community led water conservation and productivity improvement on farming system approach in drought prone sub-humid chhotanagpur region through demonstration of improved rainwater harvesting and ground water recharging techniques”**

Specific Technology(ies) Approved for demonstration:

S.No.	Description of Technology (ies)
1	Integrated fish in farm ponds for stabilizing farm income with crop cultivation
2	Demonstration and dissemination of low cost planting techniques on dry/waste lands
3	Low cost micro irrigation technology in rainfed minor irrigation tanks



Multiple uses of water :Fish production as one of the interventions of multiple uses of water was undertaken in two places at Nabagram, Burdwan, WB and Hazaribagh, Jharkhand. At Nabagram, two harvestings gave up to 19.0 kg of fish (mostly silver carp and grass carp). At Taldi a total of 134.2 kg of fish (mostly silver carp and grass carp) was harvested. However, the small fish (weighing less than 200 gm a total number of about 1400) were left in the pond to further grow in next season. Considering this, a total yield was around 1.5 t/ha. Fish production is expected to increase further for the second season since there are already grown up seedlings which grow faster under better management.

Rice-based cropping systems:Cereal dominated rice based cropping sequence (rice-wheat-green gram) was more remunerative than pulse dominated (rice-lentil-green gram) with

respect to production potential of crops. Where as pulse dominated rice-based cropping system was beneficial for improving soil health, fertility status as well as physical properties. Considering the economical aspects, pulse dominated rice based cropping system was found to be more profitable than cereal dominated rice based cropping system. Pulse dominated cropping system gave maximum net return (Rs. 22,500/- followed by cereal dominating cropping system (Rs. 23, 536/) at optimum , respectively.

Completed Project No.

Climate Change Adaptation Project (World Bank-GEF funded US\$ 2.45 Million) Nuh block, Mewat, Haryana

“Climate Change Adaptation Project (World Bank-GEF funded US\$ 2.45 Million)” Haryana,MEWAT,Nuh. Named ‘Strategies to Enhance Climate Change adaption in Adverse Region’ (2009-14)”

WATER has been working at Mewat district , Haryana for the last 15 years. So far WATER has formed many SHGs out of which 11 are women SHGs. WATER organised beneficiaries as supported by CAPART(Rs.72,000) for six villages in Nuh block, Mewat Haryana, during 2003-6. Watershed Project for Mewat area in Nuh Block was submitted in 2008 to CEO MDA also to of DRDA Nuh. Since it was not sanctioned even after a lot of perusing

WATER got associated as designated NGO with the National Agriculture Innovative Technology Project (Component 3) ICAR/IARI The Climate Change Adaptation multi-disciplinary Project, is comparatively big in shape(4 states Haryana, M P, Maharashtra, Orissa, 28 villages, 23,00 farm families 5 Resources (ICAR/SAUs) Centres and 5 NGO Partners). At Mewat a backward drought prone dry region of Haryana State CCA project is operational in 4 clusters comprising 9 villages

- 1 Biwan (Biwan and Sonkh)
- 2 Palla-Paladi(Palla and Paladi)
- 3 Bango (bango, Chehekla, Sundh)
- 4 Jhirka (Didhara, Kalharpur)

The designated N G O, WATER, as per MOU signed with IARI(on dated 24.09.2010) had recruited 5 (Five) Community Level Workers (Two Female one of which as a Coordinator pure on temporary basis) and few local persons as voluntary village based workers from the villages in the respective Panchayat areas with the consent of the Sarpanch/Mukhiyas of the villages. As per agreement for the ‘Work Activities’ of the project, required help in farmers selection, farm/ non farm activities selection, social mapping/zoning demonstration and off farm activities excavation, renovation of WHT, soil conservation works etc., other earth works are done through the Community Level Workers field staff deployed at the clusters, in consultation with Panchayat and respective Scientists/ NGO WATER

During 2010-13, Kharif Bajra (composite 443, HY-23 etc) along with local varieties were demonstrated but due to heavy rain (Climate Change- Rainfall change) the selected

Bajra varieties did not perform well as compared to farmers varieties. During rabi 2010-13, Wheat (10 quintals each of 3 varieties Cv Wr 544, HD 2932, HD 2285) and Mustard (50 kg each of Cv Pusa-Agranee/Tarak/Barani/Mahak) were distributed to farmers as per detailed study/survey in all the villages Recommended package of practices were followed and all relevant data collected for analysis and the wheat-Mustard performed very promisingly with higher yield and better grain quality

Required technical/scientific assistance, materials, equipments / scientific instruments were purchased for field experiments and provided to field staff under the supervision of scientific staff (IARI divisional scientists)for drought proofing, demonstration, water management plans, preparation/survey materials for training, documentation etc. (documentation materials, PC, LCD, printer, charger etc.), and creating infrastructural facilities and some other misc. items related to this project accounted for better and quality works for timely implementation and smooth running of the project successfully took a long time .

Climate Projections

Monsoon Rainfall: Marginal changes in monsoon months (JJAS)

: **Large changes during non-monsoon months**

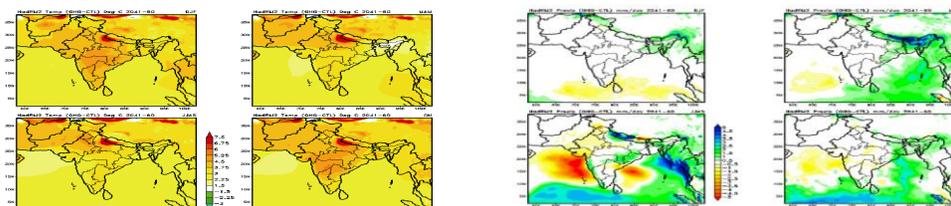
No. of rainy days: set to decrease by more than 15 days

Intensity of rains : to increase by 1-4 mm/day

Cyclonic storms: Increase in frequency and intensity of cyclonic storms is projected

temperature: increase by 2 - 4°C during 2050s

Av. Surface



Water related Interventions for

Mewat Zone, Haryana

Rainfall: 338-440 mm

Individual and Community based Activities

- Rainwater harvesting through bunding
- Laser land leveling/Leveling
- Aqua Ferti Seed Drill sowing
- Sprinkler system
- Drip irrigation system
- Pipe line networks/ Conveyance
- All resource conservation technologies such as Raised bed planting, Zero tillage, mulching etc.
- Construction of Check dams
- Construction of village/farm ponds for water harvesting and recharge
- Construction of gully plugs, dug wells
- Land leveling and Laser leveling for higher water use efficiency in farmers fields
- Pipeline network for water conveyance
- Sprinkler irrigation systems
- Drip irrigation systems in vegetable and orchard
- Training programmes on improving water use efficiency and livelihood

Expected major outputs

- **Characterization of current and future climatic risks in vulnerable regions.**
- **Identification of best strategies for climatic change adaptation to sustainable agriculture & livelihoods**
- **Developed Integrated Monitoring Indicators to facilitate Drought Early Warning System (EWS) for agriculture and rural livelihoods in the selected regions**
- **Strengthening of drought-advisory system in the selected regions**
- **Use of Resources Conservation Technologies (RCT) in carbon sequestering and livelihoods adaptation to climate change**
- **Strengthened capacity of the stakeholders in supporting changed livelihoods to future climate change of the selected agro-ecological zones,**
- **Documentation of CCA best practices for large scale application and dissemination of climate adaptation knowledge**

Conclusion

- Poverty should be addressed with various social security programmes
- Continuous government supports for food grain production with various programmes
- Efficient implementation of PDS should be addressed to reach the masses
- Adopting sustainable strategies and practices to increase the production and productivity levels
- Farm technologies should go in harmony with **biodiversity**
- Concentrating on **rainfed** and other potential areas will curtail food insecurity
- **Construction of Check dams**
- **Construction of village/ farm ponds for water harvesting and recharge**
- **Construction of gully plugs, dug wells**
- **L> and leveling and Laser leveling for improving water use efficiency in farmers fields**
- **Pipeline network for water conveyance**
- **Sprinkler irrigation systems**
- **Drip irrigation systems in vegetable and orchard**
- **Training programmes on improving water use efficiency and livelihood**

6/25/2011

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Ongoing Project 1

INTEGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP), WEST BENGAL

WATER has taken up Pre Project Activity in the district of Birbhum and West Medinipur during 2011-12. As a result of this WATER has been declared as Project Implementing Agency by the DRDA/ WBSWDA vide Govt of West Bengal Order dated 05.06.2012 issued by WBSWDA, writers Building, Kolkata (Table bellow).

Accordingly WATER has taken up various Preparatory phase Project Activity as per Annual Action Plan and hired WDTs 4 in all of the 4 IWMP project as per GOWB rules and trained

and are being utilized for all the IWMP related activities in collaboration with Village Committee (Gram Sabha), Panchayat Samities and Block/ District Rural Development Agency. WATER has completed the Entry Point Activities (EPA) in 90% of the villages totaling 122 nos after awareness programme and approval by Gram Sabha and Block (BDO)/ Panchayats and Watershed cum Development Cell(WCDC) at the DRDA at district. WATER has taken up Institution and Capacity Building programme after due awareness and capacity building activities for WDTs, GP members, WC members, SHG and UGs and villagers and landless and marginal farmers. WATER has completed all the 4 Detailed Project Report itself with marginal assistance from Experts hired by WATER. WATER is preparing for work phase activities for which the Watershed Committees and watershed Associations and SHG and UG groups are being finalized. Some of the details of the 3projects at Medinipur are given bellow:

District wise number of watershed projects identified for development under IWMP during 2011-12 as given to WATER

District Name	Office of the Watershed Cell cum Data Centre (WCDC)	Project Implementation Agency (PIA)	No. of watersheds	Name of the Watershed & (Block Name)	S N of the Project in PPR	Total geographical area (in Ha.)	Effective Project Area (in Ha.)	Estimated Project Cost Rs Lakh
Paschim Medinipur	DRDC, Paschim Medinipur	President, Watershed Association for Training Employment & Resource utilisation (WATER)	1	Bhaluka (Jamboni)	IWMP-15 / 2011-12	3249	3000	450
			1	Laboni (Binpur-II)	IWMP-16 / 2011-12	3946	3000	450
			1	Dakai (Binpur-II)	IWMP-17 / 2011-12	4258	3200	480
Birbhum	District Rural Development Cell (DRDC), Birbhum	President, Watershed Association for Training Employment & Resource utilisation (WATER)		Ajay Illambazar (Illambazar)	IWMP-4 / 2011-12	7983	3942	473.00

	Name of the Scheme/Programme	Integrated Watershed management Programme (IWMR)
1	Name of the Project	Paschim Medinipure/IWMP-16/2011-12,Dakai watershed
2	Names & Nos of the Watersheds	Dakai
3	State	West Bengal
4	District	Paschim Medinipure
5	Block	Binpur II
6	Basin/catchment/sub catchment	Subarnarekha
7	SLUSI watershed code (Watershed code)	4H3A3c
8	Latitude	22° 34' 0" N to 22° 39' 0"N Latitude
9	Longitude	86°39' 0" E to 86° 47' 0" E longitude
10	Name of the P.I.A.	Watershed Association of Training Employment & Resource utilization (WATER)
11	Name of the Watershed Committee/Association & Registration no.	Formation is under process
12	Date of Commencement of the project*	2011-12
13	Date of completion of the project	2017-18
14	Total geographical area of the Watershed(in ha)	4073
15	Area under settlement/road/river/playground etc. (ha) i.e. area not available for watershed development	156
16	Total Forest area (ha)	1842
17	Effective project area (ha.)	3200
18	Number of Villages covered	29 (twenty-nine)
19	Name of the villages	Dulungdiha(100), Balichua(101), Simulpal(149), Thakuranpahari(150), Katuchua(151) Sarisabasa(143), Kodapura(144), kharikabad(176), Pithakunra(177) Bansol(178), Kulurdahi(180), charakpahari(181), Garpahar(182), Radhamohanpur(183), Jamboni(189), Sitapur(164), Loyada(165), Kathkura(166), Chutiabhudri(167), Dublakona(168), Madhupur(169), Darra(170), Rangametia(171), Chekuapal(172), Dakai(162), Kakrijharna(163), Bodadihi(146), Machhkandna(147) Basudevpur(148)
20	Total project cost	Rs 480.00 lakh
21	Head of Account	

		Programme (IWMP)
1	Name of the Project	Paschim Medinipure/IWMP-14/2011-12,Bhaluka watershed
2	Names & Nos of the Watersheds	Bhaluka
3	State	West Bengal
4	District	Paschim Medinipure
5	Block	Jamboni
6	Basin/catchment/sub catchment	Subarnarekha
7	SLUSI watershed code (Watershedcode)	4H3A3d/3e
8	Latitude	22° 22' 0" N to 22°25' 0"N Latitude
9	Longitude	86°52' 0" E to 86°55' 0" E longitude
10	Name of the P.I.A.	Watershed Association of Training Employment and Resource utilization (WATER)
11	Name of the Watershed Committee/Association & Registration no.	Formation is under process
12	Date of Commencement of the project*	2011-12
13	Date of completion of the project	2017-18
14	Total geographical area of the Watershed(in ha)	3309
15	Area under settlement/road/river/playground etc. (ha) i.e. area not available for watershed development.	178
16	Total Forest area (ha)	1673
17	Effective project area (ha.)	3000
18	Number of Villages covered	25 (twenty-five)
19	Name of the villages	Loha Malia(202), Chhota Ghung 204), Baro Ghung(205), Dhani apal (206), Ranipal (310), Bhaluka – I (312), Maupal (304), Bahirgram (308), Beldangri (309), Khasiangal – I (291)
	Name of the Scheme/Programme	Integrated Watershed management Programme (IWMP)
		Chhota Ghung (204), Baro Ghung (205), Ramchandrapur (307), Kanimahuli (301), Rangametia (313), Chaltha (314), Banksol (315), Kumri (316), Tentlapal (203), Kenja (311), Kismat (303)
20	Total project cost	Rs 450.00 lakh
21	Head of Account	

1	Name of the Project	Paschim Medinipur / IWMP-15/2011-12, Laboni watershed
2	Names & Nos of the Micro watersheds	Singhadoba MWS I
3	State	West Bengal
4	District	Paschim Medinipure
5	Block	Binpur II
6	Basin/catchment/sub catchment	Subarnarekha
7	SLUSI watershed code (Micro Watershed code)	4H3A5b2d
8	Latitude	22° 37' 0" N to 22° 40' 0"N Latitude
9	Longitude	86°38' 0" E to 86° 41' 0" E longitude
10	Name of the P.I.A.	Watershed Association of Training Employment and Resource utilization (WATER)
11	Name of the Watershed Committee/Association & Registration no.	Formation is under process
12	Date of Commencement of the project*	2011-12
13	Date of completion of the project	2016-17
14	Total geographical area of the micro watershed (in ha)	996
15	Area under settlement/road/river/playground etc. (ha)i.e. area not available for watershed development works.	13
16	Total Forest area (ha)	594
17	Effective project area (ha.)	886
18	Number of Villages covered	5 (five)
19	Name of the villages	Burijhor(52), Singhaduba (53), Susnidubi(54), Rimradanga(90), Dangikusum(93)
20	Total project cost	Rs 132.90
21	Head of Account	