

INTEGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP)

garrasankhnala

DETAILED PROJECT REPORT (DPR) (2009-2014)

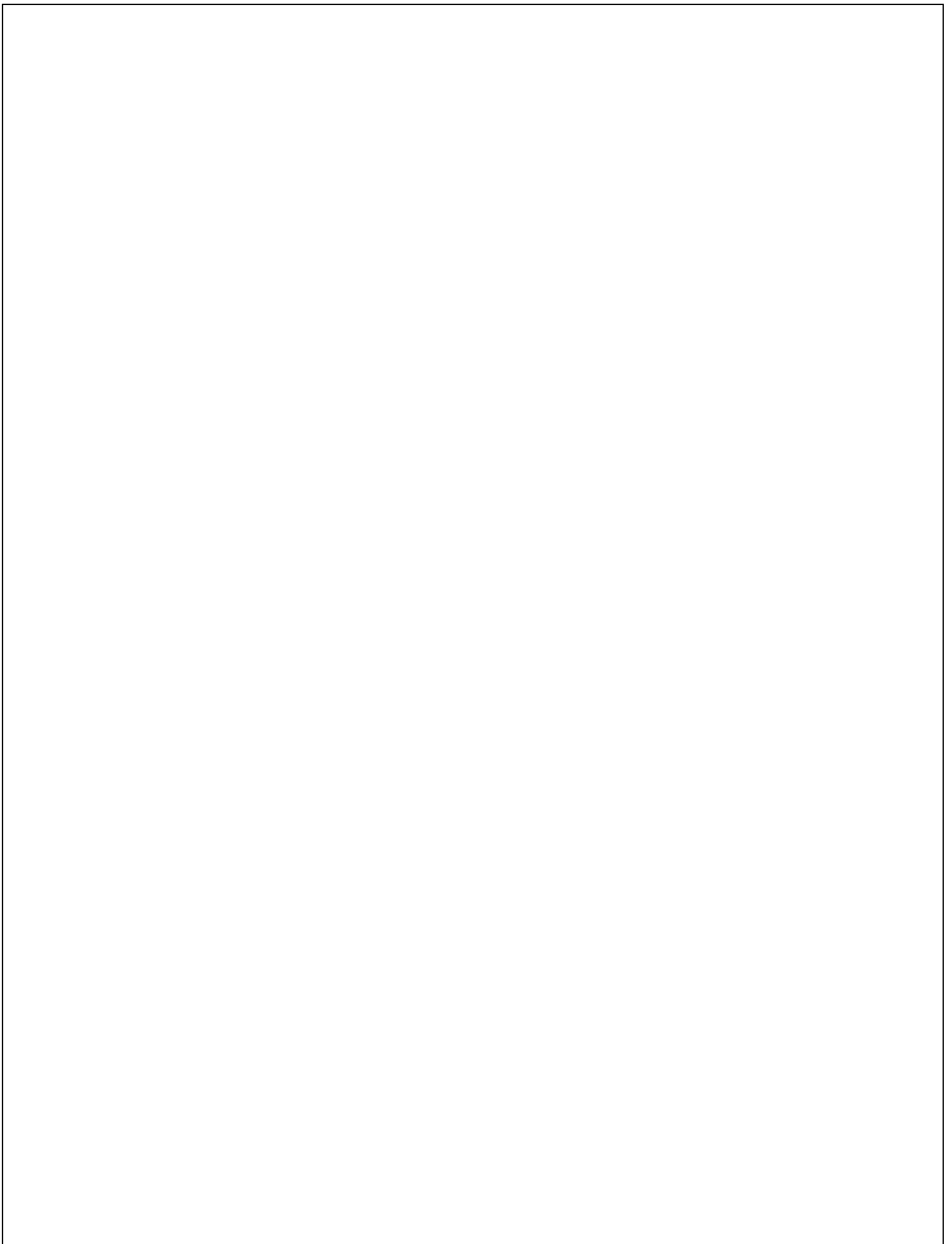
**PIA
KALAMANDIR
EAST SINGHBHUM, JHARKHAND**



**MICRO-WATERSHED CODE: 4H3A6b3a
NAME : Baridih
BLOCK: DUMERIA
DISTRICT: EAST SINGHBHUM**

**STATE LEVEL NODAL AGENCY- JHARKHAND STATE WATERSHED MISSION
Department of Rural Development
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**DEPARTMENT OF LAND RESOURCES
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA
NEW DELHI**



**SLNA - Jharkhand State Watershed Mission
Rural Development Department,**

**DETAILED PROJECT REPORT OF IWMP
(2010 – 2014)**

Micro Watershed : 1
Micro Watershed Code No : 4H3A6b3a (Baredih)
IWMP project : 2009-2014
Block : Dumaria
District : East Singhbhum
Name of the PIA : *Kalamandir*-The Celluloid Chapter Art Foundation

CHAPTER 1

Introduction and Background

INTRODUCTION

- Name of the State : Jharkhand
- Name of the District : East Singhbhum
- Names of the Blocks : Dumaria
- Name of the project : IWMP
- Financial Year of sanction : 2009-2014
- Project duration : From June 2010 to July 2014.....
- Map of the project area showing village boundaries, contours and drainage. Yes

Executive Summary of the DPR of Watershed, in Dumuria Block, East Singbhum District, Jharkhand

1. Present status and situation analysis of the area:

The watershed area is spread over Gram Panchayats of Palaboni, Nonia, Kumarsol and Astakawali situated in the Dumaria Block under East Singbhum District of Jharkhand state. The total geographical area of the watershed is 10,283.66 ha, out of which the proposed project area is 6331.21 ha, to be treated under Integrated Watershed Management Program (IWMP), starting from the year 2010-11. The project area is located at the latitude of 22°20' to 22°27' and longitude of 86°22' to 86°29'. The elevation of this project area varies from 300 m to 887 m above mean sea level (MSL). This project is expected to reach benefit to 2974 households of 32 villages where 1800 households are below poverty line (BPL) status constituting 12% of the total population of the project area. Out of the 2974 households, most belong to scheduled tribe (ST) category, followed by scheduled caste (SC) and others. The topography of the area consists of hilly, undulating upland, and valley plain. The annual average rainfall of the area ranges from 800 mm to 1310 mm with an average of 60 to 65 rainy days. May and June are the hottest months, with temperatures touching 45 °C. December and January are the coldest months and the temperature drops down to 4 °C. Around 80% of the people in the project area depend upon agriculture related livelihood activities. Due to erratic rainfall and continuous drought, the farmers are demoralized and now have developed a negative attitude towards agriculture. The present scenario gives an impression that agriculture is an unsustainable source for food and employment opportunities all the year round. The present situation developed due to low rainfall and its absorption, poor soil productivity, lack of irrigation facilities along with absence of proper agricultural practices. All these factors, taken together ultimately lead to unemployment and distress migration in this project area.

2. Vision Statement

- Project has been formulated with the total participation of villagers with a specific vision of soil & water conservation in the stipulated time frame of 5 years.
- The overall vision of the villagers in the project area of the villagers is- 1) Enhancement of moisture content in soil, 2) storage of water in village through WHS, 3) expansion of vegetation and forest cover through the intervention of IWMP Project for overall Socio economic development of the people.
- Around 50% of the project area falls under the kharif paddy stabilization plan through proper management of water and SRI techniques
- Around 50% increase in the 2nd crop in the project area through proper management of water resources from 2012-13.
- Water table level will go up.

- Around 50% increase in income level of landless farmers from base income through various alternative IG activities like Bamboo, Poultry, Sewing, Dona patal.
- To community member would be empowered enough to take decision for development of villages
- The community based organizations will continue, expand and sustain the efforts after completion of project.

3. Institutional Arrangements

The Project implementation Agency (PIA), Kalamandir, The Celluloid Chapter Art Foundation, Jamshedpur is a non-governmental and non-profit making organization registered under society registration act 21, 1860. It promotes Self-Help groups and User Groups, Farmers club, livelihood Activities for BPL farmers and agricultural activities for marginal and poor farmers through an assortment of various government rural development programmes. The activities include conservation of natural resources and locally suitable economic activities, introduction of improved and high yielding varieties of agri -horti products as per land use and existing land patterns, through rapport building and community mobilization. Over the years these interventions have strengthened, through establishment of proper rapport and relationships with government agencies, SHG Federation, Farmer club, artisan bodies, civic bodies, community level organizations for continuous growth of Kalamandir – CCAF, Jamshedpur. Here the role of Kalamandir - CCAF, Jamshedpur will be to facilitate the programme by supporting community based organizations such as: Watershed Committees (WC), Self-help Groups (SHG), and User Groups (UG). The role of the watershed committee will be the implementation of the program as well assuring the contribution in natural resource management is successful. The Secretary of the committee will be treated as the most responsible member for the WC. The watershed development team (WDT) will act as a catalyst for supporting Community Based Organizations (CBO)s for successful program implementation. A total number of 17 SHG's and 19 UG's have been formed to link with the project activities.

4. Salient Project Activities

An open minded participatory mode of planning, implementation & evaluation through rapport building and awareness generation of community members is the first stage for building self confidence to take decisions for implementation of activities. The broad spectrum of activities includes:; entry point activity (EPA), capacity building, institution building, natural resources management, livelihood promotion, productivity enhancement, setting up of micro enterprise development, monitoring and evaluation. The major proposed activities are horticulture, vegetable production through SHGs, a forestation, solar lamp distribution, health camp, livestock vaccination. Sewing machine distribution, paddy thresher and vermi-compost for community use are covered under the EPA activities which constitute 4% of the total budget costs of programmes. Under the natural resource management (NRM) component, which constitutes 50% of project funding, recharging of ground water activities are given top priority. This includes the activities of contour trenching, recharge wells/pits with shaft, contour bunding, percolation tanks with recharge shaft, boulder (stone) masonry check dam with recharge shafts, Nallah and gully plugging and subsurface dam/dyke, afforestation of species yielding NTFP and horticulture orchard in the form intercropping. For the productivity

enhancement and micro enterprises which constitute 10% of the project funds, the activities are: SRI, dry land agriculture, and fodder cultivation. For livelihood promotion activities which constitute 10% of the project fund, the activities are: back yard poultry, horticulture, and vegetable production. A comprehensive training and capacity building plan (which constitutes 5% of the project fund) has been designated for various CBP such as: SHG, UG, and watershed committees. The basic goal of this training programme will be for project orientation as well as skill enhancement.

However marketing linkage of farm and non-farm products produced by trained beneficiaries like Self Help Groups (SHGs), Farmer Clubs (FCs), User groups will be promoted by the PIA - Kalamandir.

5. Convergence With Various Schemes

Convergence of other schemes will be to saturate the possible NRM activities in the project area which is planned under IWMP programme. In this process a total amount of rupees 50 lakhs will be used from MG NREGA, Rs. 50 Lacs from Planning Dept. (Sericulture). For some of the intervention structures, like check dams, special proposals will be prepared and submitted by PIA when necessary. During the convergence process, SLNA, DWDU and PIA will take a leading role to facilitate the convergence activities like SGSY schemes for SHG members and NAEB for non-timber forest products (NTFP).

6. Exit Policy

A suitable system and processes will be designed, community based organization will be handed over to manage and maintain all the assets created under the project with the help of the watershed development fund (WDF), which is collected from the beneficiaries in the form of a contribution, and then deposited to respective bank accounts. WDF will not be utilized during the project period. At the time of the exit period it is important that the community should be strong enough to maintain the development works and systems already created and in place. A special benefit sharing mechanism for the common assets will be formulated through involvement of user groups. Proper utilization of WDF will be made after the project period for the need based work of community assets. The watershed committee will also be responsible for conflict management within user groups and SHG's.

II). PROFILE OF THE WATERSHED PROJECT: Table No.1.1 Project at a Glance

1	Name of the State	Jharkhand																				
2	Name of the project	Integrated Watershed Management Programme																				
3	Name of the District	East Singhbhum																				
4	Names of the Blocks	Dumaria																				
5	Names of Gram Panchayats	Palasboni, Kumrashol, Asta Kawali and Nonia																				
6	Names & Census Code of Villages covered	<table border="1"> <thead> <tr> <th>Gara Sankh</th> <th>Name</th> <th>Census code</th> </tr> </thead> <tbody> <tr> <td rowspan="8">Microwatershed no-1 (4H3A6b3a)</td> <td>Baredih</td> <td>0316670</td> </tr> <tr> <td>Nishchintpur</td> <td>0316490</td> </tr> <tr> <td>Manda</td> <td>0316330</td> </tr> <tr> <td>Manoharpur</td> <td>0316340</td> </tr> <tr> <td>Punashibad</td> <td>0316350</td> </tr> <tr> <td>Parsa</td> <td>0316360</td> </tr> <tr> <td>Karansai</td> <td>0316370</td> </tr> <tr> <td>Hatibari</td> <td>0316400</td> </tr> </tbody> </table>	Gara Sankh	Name	Census code	Microwatershed no-1 (4H3A6b3a)	Baredih	0316670	Nishchintpur	0316490	Manda	0316330	Manoharpur	0316340	Punashibad	0316350	Parsa	0316360	Karansai	0316370	Hatibari	0316400
Gara Sankh	Name	Census code																				
Microwatershed no-1 (4H3A6b3a)	Baredih	0316670																				
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	Punashibad	0316350																				
	Parsa	0316360																				
	Karansai	0316370																				
	Hatibari	0316400																				

7	Four major reasons for selection of watershed	<p>Poverty above 80% More Than 80% ST population Ground water status : Over exploited Productivity potential of the land : Lands with low production & where productivity can be significantly enhanced with reasonable efforts</p>
8	Name, Address , Phone No and Reg.No.. of the PIA(s)	<p>Kalamandir-The Celluloid Chapter Art Foundation 8, 10, N-Road, Bistupur, Jamshedpur-831001. Ph. No. 0657-2320109 / fax: 2320457 e.mail: kalamandir.jsr@gmail.com Jhrakhand</p>
9	Date of approval of Watershed Development Plan by the DPC	18 Dec 2009
10	Area of the Project (ha.)	10283.33hector are covered 32 villages
11	Area proposed to be treated (ha.)	6331.21 hector
12	Financial Year of sanction	2009
13	Project duration	From.....2009..... to.....2014.....
14	Project Cost (Rs. in Lakhs)	760 lakhs
15	Date of Sanction by State authority	June 2009
16	Date of Release of 1 st Installment of Central Assistance (To be filled by DoLR)	
17	Any other, please specify	

Table No. 1.2 Need and Scope for Watershed Development

Project Name	Project Type	Weightage											Total	
		i	ii	iii	iv	v	vi	vii	ix	x	xi	xii		xiii
Integrated Water Shed Development Programme	Hilly	10.0 0	10.0 0	5.00	10.0 0	5.00	0.00	15. 00	5.0 0	5.0 0	5.0 0	5.00	10.00	95

*As per PPR

S/no.	Criteria	Max Score	Ranges and Scores	
i	Poverty index(%of poor to population)	10	Above 80% (10)	80 to 50 % (7.5)
ii	% of SC/ST population	10	More than 40% (10)	20 to 40 % (5)
iii	Actual wages	5	Actual wages are significantly lower than minimum wages (5)	Actual wages are equal to or higher than minimum wages (0)
iv	% of small and marginal farmers	10	More than 80% (10)	50 to 80% (5)
v	Ground water status	15	Over exploited (15)	Critical (10)
vi	Moisture index/ DPAP/DDP Block	10	-66.7 & below (10) DDP Block	-33.3 to -66.6 (5) DPAP Block
			Sub critical (5)	Less than 50 (3)
			Safe (0)	Below 20% (2.5)

vii	Area under assured irrigation	15	Less than 10% (15)	10 to 20% (10)	20 to 30% (5)	Above 30% (Reject)
viii	Drinking water	10	No source (10)	Problematic village (7.5)	Partially covered (5)	Fully covered (0)
ix	Degraded land	15	High – above 20% (15)	Medium – 10 to 20% (10)	Low – less than 10 % of TGA (5)	
x	Productivity potential of the land	10	Lands with low production & where productivity can be significantly enhanced with reasonable efforts (10)	Land with moderate production & where productivity can be enhanced with reasonable efforts (5)	Lands with high production & where productivity can be marginally enhanced with reasonable efforts (0)	
xi	Contiguity to another watershed that has already been developed/treated	10	Contiguous to previously treated watershed & contiguity within the micro watersheds in the project (10)	Contiguity with in the micro watersheds in the project but non contiguous to previously treated watershed (5)	Neither contiguous to previously treated watershed nor contiguity within the micro watersheds in the project (0)	
xii	Cluster approach in the plains (more than one contiguous micro-watersheds in the project)	15	Above 6 micro-watersheds in cluster (15)	4 to 6 micro watersheds in cluster (10)	2 to 4 micro watersheds in cluster (5)	
xiii	Cluster approach in the hills (More than one contiguous micro-	15	Above 5 micro-watersheds in cluster (15)	3 to 5 micro watersheds in cluster (10)	2 to 3 micro watersheds in cluster (5)	

	watersheds in the project)						
	Total	150	150	90	41	2.5	

Table no.1.3: Watershed information

Sl no	Name of Project	Watershed Code	Villages to be Treated	Geographical Area(Ha)	Treatable Area(Ha)	Approval Year
	IWMP	Micro watershed no-1 (4H3A6b3a)	Baredih	342.64	265.75	2009-10
			Nishchintpur,	100.76	87.76	
			Manda	163.62	127	
			Manoharpur	65.71	48	
			Punashibad	98.37	72	
			Parsa	84.85	65	
			Karansai	131.17	115	

			Hatibari	107.87		87	
			Total	1094.35		867.51	

Table No.1.4: Status of other development project in the area

S n o	Name of the programme/scheme	Sponsoring agency	Objectives of the programme/scheme	Year of commencement	Villages covered	Estimated number of beneficiaries
	IWMP	Rural Development	To alleviate poverty and develop a sustainable livelihood by properly managing the water resource.	2009	8	3200

Table No. 1.5: Status of previous watershed program-

S. No	Projec t name	Year starte d	Name of village s	No. Of micro watershe d	Watershe d codes	Area under treatmen t	Fundin g source	Nodal agenc y	PI A	Tota l cost	Expenditur e incurred up to start of IWMP	% financial completio n	% physical completio n
NA: Not Applicable													

CHAPTER 2

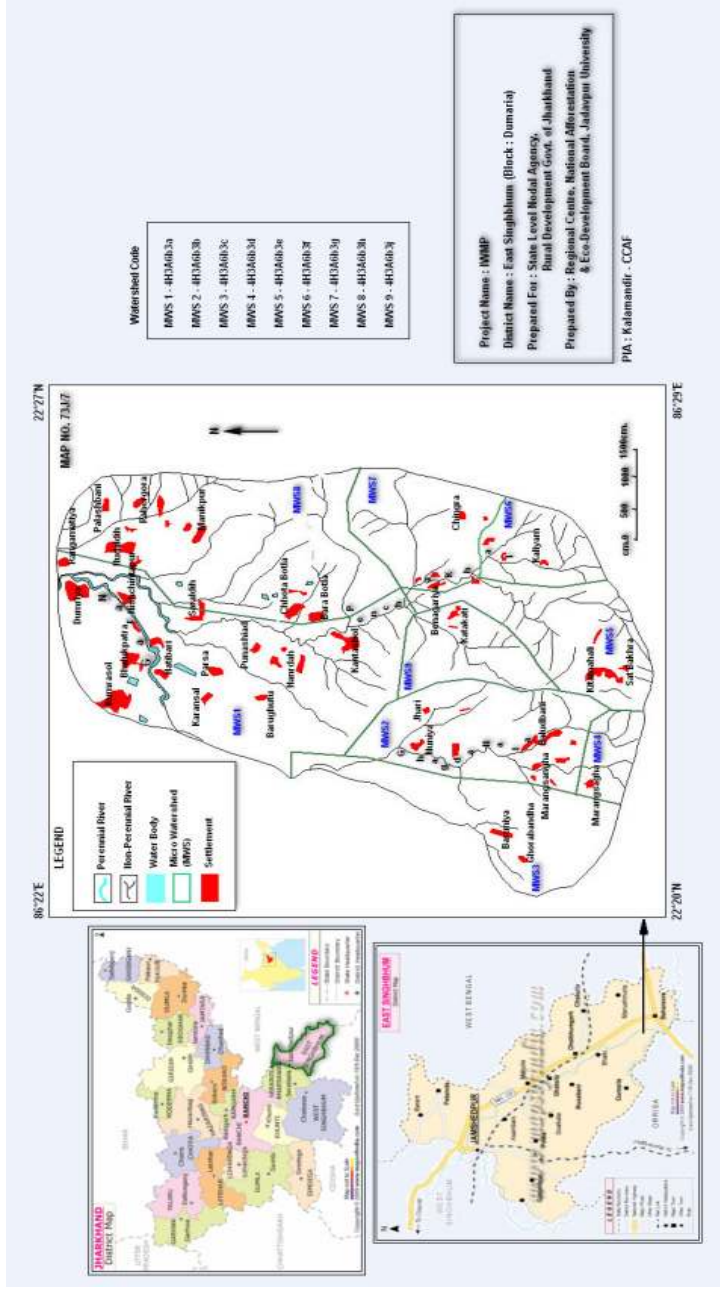
General Description of Project Area

Table 2.1: Location

Longitude	86° 22'30" East to 85° 27'30" East.
Latitude	22° 21'45" North to 22° 27'30" North.
State	Jharkhand
District	East Singhbhum
Subdivision	Ghatshila
Block	Dumaria
Panchayat	Nonia Palasbani Nonia Palasbani Kumra Sol
Villages	Baredih, Nishchintpur, Manda, Manoharpur, Punashibad, Parsa, Karansai, Hatibari
Approach Road	Dumaria Musabani

Geographical location of Watershed Map

Fig: 2.1



Location: longitude, latitude, state, District, Taluk, Block, Villages, Approach road, land mark (watershed location map), etc.

Table no: 2.2 Land Details

S. No.	Names of villages	Geographical Area of the village (ha)	Forest Area (ha)	Land under agricultural use (ha)	Rain-fed area (ha)	Irrigated Area	Permanent pastures (ha)	Wasteland	
								Cultivable (ha)	Non-cultivable (ha)
1								4.78	36.87
	Baredih,	342.64	76.02	224.97	342.64	-	-		
2	Nishchintpur,	100.76	NA	76.84	100.42	-	-	10.89	12.46
3	Manda,	163.62	35.22	103	163.62	-	-	8.22	17.18
4	Manoharpur,	65.71	NA	51.52	65.71	-	-	5.29	8.9
5	Punashibad,	98.37	NA	89.07	97.37	-	-	4.88	3.42
6	Parsa,	84.85	NA	79.07	83.85	-	-	3.44	1.34
7	Karansai,	131.17	41.98	88.31	130.56	-	-	-	0.27
8	Hatibari	107.87	NA	85.55	107.87	-	-	6.07	16.25
		1094.99	153.2						

Table No. 2.3: Details of the types of areas covered under the project

1	2	3				Total
		No. of beneficiaries covered				
S. No.	Name of village	SF	LF	Landless		
1	Baredih,	125	25	9	314	
2	Nishchintpur,	45	5	10	85	
3	Manda,	180	18	10	293	
4	Manoharpur,	20	2	5	38	
5	Punashibad,	58	2	12	152	
6	Parsa,	90	5	13	263	
7	Karansai,	58	2	6	146	
8	Hatibari	61	1	8	143	

Table No. 2.4: Details of Agro-climatic condition

1	2	3	4	5	6	7	
Sl. No.	Name of the Project	Name of the Agro-climatic zone covers project area	Area in ha	Names of the villages	Major soil types	Major crops	
					a) Type	a) Name	b) Area in ha
	IWMP	Eastern Plateau and Hill Region, Zone VII	3533km ² Total East Singhbhum	Baredih,	Mostly Sandy loam, and Sandy, Gravel in different patches	Paddy	46
				Nishchintpur,	Do	Paddy	28
				Manda,	Do	Paddy	16.75
				Manoharpur,	Do	Paddy	18.25
				Punashibad,	Do	Paddy	15.05
				Parsa,	Do	Paddy	18.10
				Karansai,	Do	Paddy	18.5
				Hatibari	Do	Paddy	21.75

Table No. 2.5 Details of flood and drought in the project area

1	2	3	4		5
Sl. No.	Particulars	Villages	Periodicity		Not affected
			Annual	Any other (please specify)	
1	Flood	No. of villages	No	No	No
		Name(s) of villages	No	No	No
2	Drought	No. of villages	Yes	All villages of the block in 2009 (periodicity 3-4 Years)	Affected
		Name(s) of villages	Yes	All villages of the block in 2009 (periodicity 3-4 Years)	Affected

Table No. 2.6: Details of soil erosion in the project area

1	2	3	4	5
Cause	Type of erosion	Area affected (ha)	Run off (mm/ year)	Average soil loss (Tonnes/ ha/ year)
Water erosion				
	a Sheet	1500-1600 (HA)	420	10-12
	b Rill	600-750 (HA)		
	c Gully	320 – 570 (HA)		
Sub-Total		238		

Table No. 2.7 Details of the Soil pH

Name of the Villages	Sample no	Soil Ph	Soil Type
Baredih,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Nishchintpur,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Manda,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Manoharpur,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Punashibad,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Parsa,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Karansai,	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches
Hatibari	Litmus paper testing	5.6-6.5	Mostly Sandy loam, and Sandy, Gravel in different patches

Table No.2.7.1 Climatic Condition

Sl No	Year	Average Monthly Rain fall(in mm)	Average Annual rainfall(in mm)preceding 5 years	Temp(°C)		Wind Velocity	Open pan evaporation (mm per day)	Relative Humidity(RH)	Average Annual run off(mm/year)
				Max	Min				
		Kharif (June –October) 1200 Rabi (October – March) 250 Jayad (March-Jun) 450	1309	42	5.5	7.7 miles per hour (district average)		60%	820 mm/yr

Table No.-2.8 Physiographic Features

Elevation(MSL)	Slope Range(%)	Order of Watershed (No of streams)	Major Stream	Toposequence (Soil series)	Average annual soil loss(Ton / hectare/year)
200-256(Met)	1-10	3	Gara nala	Sandy loam/Silt and clay	10-12

Table No. 2.9 Watershed characteristics

Shape index of the watershed	Length of main stream	Drainage density	Average slope	Watershed relief	Perimeter of the watershed
Oval	9.5(Km)	.04	3-6%	98(Meter)	

CHAPTER – 3
BASE LINE INFORMATION OF WATERSHED

Table No. 3.1: Demographic features:

1	2	3	4	5
S.No	Feature	Male	Female	Total
1	Population	1612	1588	3200
	SC	5	3	8
	ST	1191	1096	2287
	BC	500	405	905
	Others			
2	Children(0-14 years)	187	165	352
3	Sex Ratio			1000:957
4	Literacy			

	Literates	870	446	1316
	Illiterates	826	1058	1884
5	Work Force			
	Agriculture	840	585	1425
	Industrial/Business	NA	NA	46
	Service	24	0	24
6	Birth Rate	NA	NA	37
7	Death Rate	NA	NA	7-8

Table No. 3.2: Livestock details:

1	2	3
S.No	Feature	No./ quantity)
1	Milch Animals	
	Cows	103
	Buffaloes	40
	Goat, sheep	1172
2	Draft Animals	
	Ox	478

	He Buffalo	20
3	Others	
	Poultry	3142
	Piggery	52
4	Total Milk production from milch animals (ltrs/day)	NA
5	Fodder Availability	
	Dry (Abundant/Sufficient/ Scarce)	Scarce
	Green (Abundant/Sufficient/ Scarce)	Sufficient
6	Fuel wood Availability (Abundant/Sufficient/Scarce)	Scarce

Table No.3.3:Socio- economic status:

S. No	Type	3		4		5						6			
		Total HHs		No. of BPL HHs		Land Holding (Ha)			Annual Gross Income (Rs.)						
		SC	ST	SC	ST	Rain fed		Irrigated		SC	ST	Others	Total		
1	Marginal	193		102		20	138	20.25	0	0	0	0	14000	16500	30500
2	Small Farmers	261		54		34	202	120	0	0	0	0	17500	21000	38500

3	Big farmers	93	0	0	250	135	0	0	0	29500	35000	64500
4	Landless	69	52	12	18	7	0	0	0	8500	10000	18500
	Total	616	208	66	608	282.2				69500	82500	152000
					.75	5						

Table No. 3.4: Migration Details:

1	2	3	4	5	6	7
Sl. No.	No. of persons migrating	No. of days per year of migration	Major reason(s) for migrating	Distance of destination of migration from the village (km)	Occupation during migration	Income from such occupation (Rs.)
	M					
	331	142	473			
		120(Feb-May)	Mono cropped area, Lack of irrigation facilities	Jamshedpur(70km) Orissa(150km)	Labour	14400

Table No. 3.5: Details of Community Based Organizations existing in the watershed village:

Sl. No	Village	SHG*	No. Of Members	SC	ST	OBC	MF	SF	LF	Landless	BPL
1	Baredih,	2	26		23	3	6	7		13	14
2	Nishchintpur,	1	13		11	2	3	4		4	7
3	Manda,	2	24		20	4	14	5		5	13

4	Manoharpur	Nil																	
5	Punashibad,	1	12		12		6	3							3				8
6	Parsa,	1	13		11	2	4	6							3				7
7	Karansai,	1	14		14		3	7							3				8
8	Hatibari	1	13		11	2	5	4							2				9

Existing Joint forest management committee (JFMC)

Sl. No	Village	No. of Members
1	Baredih,	15
2	Nishchintpur,	16
3	Manda,	18
4	Manoharpur	21
5	Punashibad,	11
6	Parsa,	26
7	Karansai,	13
8	Hatibari	22

Remarks: This committee is formed by the villagers and the forester to protect the jungle. Almost all the members are part of this committee.

Table No. 3.6: Infrastructure Facilities:

1	2	3	4	5
S.No	Infrastructure type	No./Quantity	Distance (km)	Status (description)
1	Educational Institutions			
	Anganwadi	7	In village	Functional
	Primary School	6	In village	Functional
	Secondary school	1	7-9	Functional
	Govt. College	1	19	Functional
	Vocational Institutions	0		
2	Service Institutions			
	Bank	1	9	Functional
	Post office	1	9	Functional
	Primary Health Care Center	1	9	Functional

	Veterinary Center	0			
	Markets/ Village Haat	1		2-3	Functional
3	No. of bore wells/pump sets (Functional)	13		All in the village	Functional
4	No. of Milk collection centers (Union/ Society/ Pvt. Agency/Others)	NA		NA	No milk collection centre as the milk production is at household level
	Total Quantity of surplus milk	NA		NA	
5	Road Connectivity (to main road by an all-weather road) (Yes/No)	Yes		NA	In all villages
6	Bus facility (Yes/No)	Yes		NA	From Musabani(15-24km)
7	No. of HHs provided electricity	350		NA	NA
8	No. of HHs with access to drinking water	283		NA	NA
9	Access to Agro Industries (Yes/No)	No		NA	NA
10	Treker facility is available	Yes		NA	Dumaria(3-4km)

Table no 3.7: Land use pattern (in Hectares)

1	2	3	4	5	6	7	8	9		10		11	12	13*
								Uncultivated Private land	Permanent fallow (Ha)	Cultivated area	Cultivated Irrigated (Ha)			
S. No	Village	Geographical Area(Ha)	Forest Area(Ha)	Community Land(Ha)	Land under Non Agriculture Use(Ha)	Permanent Pastures (Ha)	Land Under miscellaneous use(Ha)	Temporary fallow (Ha)	Permanent Fallow (Ha)	Cultivated Rainfed (Ha)	Cultivated Irrigated (Ha)	Net Sown Area(Ha)	Net Area sown more than once(Ha)	Gross Cropped Area(Ha)
1	Baredih	342.64	76.02	-	36.87	2.46				224.97	NA		0	NA
2	Nishchintpur	100.76	NA	-	12.46	6.78				76.84	NA		0	NA
3	Manda	163.62	35.22	-	17.18	5.21				103.00	NA		0	NA
4	Manoharpur	65.71	NA	-	8.90	4.18				51.52	NA		0	NA
5	Punashibad	98.37	NA	-	3.42	3.11				89.07	NA		0	NA
6	Parsa	84.85	NA	-	1.34	2.30				79.07	NA		0	NA
7	Karansai	131.17	41.98	-	0.27	Nil				88.31	NA		0	NA

8	Hatibari	107.87	NA	-	16.25	4.89				85.55	NA	0	NA
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Table No. 3.8: Details of Common Property Resources:

1	2	3	4										
S.No	CPR Particulars	Total Area (ha)		Area available for treatment (ha)									
		Area owned/ In possession of		Pvt. persons	Govt. (specify deptt.)	PRI	Community land	Pvt. persons	Govt. (specify deptt.)	PRI	Community land		
		Wasteland/ degraded land	Forest	NA	0	NA	0	0	0	37	0	0	0
		0	153.22	0	0	0	0	0	0	0	0	0	

Table No. 3.9: Agriculture implements:

1	2	3
---	---	---

S. No	Implements	Nos.
1	Tractor	2
2	Sprayers-manual/ power	9
3	Cultivators/Harrows	4
4	Seed drill	Nil
		5
		6

1	2	3
S. No	Crop classification	Area (Ac)
1	Single crop	478.99
2	Double crop	NA
3	Multiple crop	NA

Table No. 3.10: Crop Classification

Table No. 3.11: Crops & Cropping pattern:

S. No	Season	Crop sown	Rain fed				Irrigated				Total			
			Area (ha)	Production (Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs./ha)	Area (ha)	Production (Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs./ha)	Area (ha)	Production (Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs./ha)
1	Khari	Paddy	204.64	408	1800-2000	570					204.64	408	1800-2000	570
			20	20	750-1000	850-950					20	20	750-1000	850-950
			13	25	1150	1100-1200					13	25	1150	1100-1200
2	Rabi	Tomato												
			10.34	85	7723	1200					10.34	85	7723	1700
		Brinjal												
			8.05	45	5324	900					8.05	45	5324	1300
		Chilli												
			7.04	28	4030	500					7.04	28	4030	1400

		237.64	453	2670	26.4	158	2600	264.04			5270
Total											

Table No. 3.12: Land capability Classification

1	2	3	4	5			
S.NO	Land type	Total Area (ha)	Soil Texture*	Based on Slope (%) (mention area in ha)			
				Steep (>15)	Nearly Level (0-2)	Moderate slope (2-6)	Strong slope (6-15)
1	Upland	177	Mostly Sandy loam, and Sandy, Gravel in different	0	65	75	37

2	Medium Upland (3 No. Khet)	270.5	patches Mostly Sandy –loam And loamy clay in a Few patches	0	102.25	152	16.25
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Table No.3.13: Irrigation facilities:

1	2	3	4
S.No	Type of the Source	Nos.	Command area (in ha)
1	Ponds	12	8.76
2	Open wells	37	14.37
3	Bore wells	12	0
4	Canal irrigation	No	
5	Natural spring head	2	5.7

	Total	63	28.83
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Table No. 3.14: Status of water table:

1	2	3	4	5	6	7	8
S.No	Source (open well)**	Plot No of the source	Name of the Owner**	Date of recording	Depth of water table from ground level (in mts)	Source located at (ridge/middle/valley)	Remarks
1	Open Well	117	Mansa Murmu	3 rd Sept 10	9.78	Homestead	NIL
2	Open Well	471	Dula Soren	3 rd Sept 10	12.37	Homestead	NIL
3	Open Well	420	Mangal Mardi	3 rd Sept 10	13.69	Homestead	NIL
4	Open Well	248	Dasmat biruli	3 rd Sept 10	18.90	Homestead	NIL

5	Open Well	327	Jtraí Mardi	3 rd Sept 10	15.60	Homestead	NIL
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Table No. 3.15: Assessment of drinking water facility*:

1	2	3	4	5
S.No	Item	Units	Quantity	Source
1	Drinking water requirement	Ltrs/day	4	Well
2	Present availability of drinking water	Ltrs/day	2	Well
3	No. of drinking water sources available	Nos	24	Hand Pump+Well
a)	Functional	Nos	15	Hand Pump+Well
b)	Need Repairing	Nos	8	Hand Pump+Well
c)	Defunct	Nos	15	Hand Pump+Well
4	Short fall if any	Ltrs/day	2	
5	No. of families getting drinking water from outside the Micro watershed area	Nos	0	
6	Requirement of new drinking water sources (if any)	Nos.	27	Hand Pump+Well

field

* based on the observations from the

Table No. 3.16: Surface water resources:

1	2	3	4	5
S.No	Type of water resource	Nos	Area irrigated (Ha)	Storage capacity (Cu.m)
1	Pond	11	10	2.5 lakh litres per pond (Avg)
2	Check dam	5	7	12.24 lakh litres per dam(Avg)

Table No. 3.17 Ground Water Structures to be repaired.

S.No	Type of structure	No. available			Total
		No. to be Repaired	No. to be rejuvenated	No. with no interventions required	
	Well	8	-	6	14
	Total	8	-	6	14

Table No. 3.18: Existing Water Saving Practices:

There is no practice practiced by the farmers in the area.

Name of the Major Crop	Area (Ha)

	Under water saving devices\$	Under water conserving agronomic practices#	Any other (Pl. Specify)	Total	Current water saving status as against flood irrigation. (Cu.m)
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\$: Sprinklers, Drip, PVC Pipe, etc.,

#: Vermi compost, organic manuring, check basin, alternate furrow, Ridges and furrow & specific practices

Table No. 3.19: Details of existing livelihoods:

1	2	3			4
S. No.	Name of activity	No. of beneficiaries			Pre-project average income per HH (Rs.)
		SC	ST	Others	

1	Household Goatry	39	108	15	162	162	Average Income of the household is Rs8000
2	Traditional Piggery	0	10	0	10	10	
3	Backyard Desi Hen	119	283	63	365	365	
4	Backyard Duckry	63	15	4	82	82	
5	Desi Cow farming	23	13	1	37	82	

Table No. 3.20: Existing functional assets (Works already completed under different schemes including works undertaken by farmers independently)

1	2	3	4	5	6
S.No	Name of the work	Plot No.	Quantity (No./RMTs)	Amount spent (Rs.)	Programme

No new work has been done in the recent past. So the details of which are not available.

Table No.3.21 PROBLEM TYPOLOGY OF THE WATERSHED:

1	2	3	4
S.No	Problem area	Problem analysis	Proposed interventions to overcome problems
1	Soil Conservation (slope, erosion, soil loss, rainfall, productivity, etc)	Erosion, Low Productivity, Erratic rainfall etc	Nala Bunds, , Field Bunding Plantation, Check dams etc
2	Water conservation (Water budget, Ground water norms, productivity)	High runoff, high permeability, low storage of surface water	Pond, 5 % model, SCT, CCTetc
3	Crop coverage – {80% of w/s area should be with canopy}	High forest cover but lack of economically beneficial forest from community, moreover under forest department	Plantation with Agro forestry, SRI, Dry land Horticulture etc
4	Agriculture productivity (crop wise compare with dist. average)	All crops have low productivity with District and state average.	Kitchen Garden, SRI paddy cultivation, high value Vegetable and Sri paddy cultivation
5	Livestock productivity (Milk Yield, Meat yield, Eggs, Wool Yield, Kidding etc.)	No such products for marketing.	Improved practices of Poultryry, Goatry, Duckery
6	Existing Livelihood activities for Asset less persons	Medication practices of livestock, Goatry, Piggery, Broiler Poultry	Improved practice of existing livelihood options.

7	Community Based Organizations & Social capital base	Existence of some SHG, farmers club and JFMC but are not fully functional.	Strengthening of the existing committees.
8	Capacity Building (participation, training, awareness of watershed community)	There is no advanced knowledge for livelihood activity implementation, System dynamics, accounting systems, SWC, WHS, and Plantation	All training will be done in respect to each activity to be implemented in the project

CHAPTER – 4

Institutional Building and Project Management

Table No. 4.1 Details of SHGs newly formed under IWMP:

Sl. No	Village	SHG*	No. Of Members	SC	ST	OBC	MF	SF	LF	Landless	BPL

1	Baredih,	2	26		23	3	6	7		13	14
2	Nishchintpur,	1	13		11	2	3	4		4	7
3	Manda,	2	24		20	4	14	5		5	13
4	Manoharpur	1	12		12		6	3		3	8
5	Punashibad,	1	12		12		7	3		2	8
6	Parsa,	1	13		11	2	5	5		3	7
7	Karansai,	1	14		14		4	7		3	8
8	Hatibari	1	13		11	2	4	5		2	9

4.2: Details of Watershed Committees (WC)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Name of WCs	Date of Registration	No. of members	Designation	Name		SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educl qualification	Function/s assigned#

	as a Society (dd/mm/ yyyy)	in WC			M/F	Write "Yes" if applicable											
Jalchajan Samiti	In process	11	President	Marshal Murnu	M	No	Yes	No	No	No	No	No	No	No	No	NM	I, A,D
			Secretary	Haripad Tudu	M	Yes	No	Yes	No	No	No	No	No	No	No	Graduate	I, A, C, D,F,H
			Treasurer	Panui Bandra	M	No	Yes	No	No	No	No	No	No	No	No	NM	A, I, B
			Member	Lahtu Hembrom	M	No	Yes	No	Yes	No	No	No	No	No	No	Intermediate	A, I, B,D
			Member	Salma Murnu	F	No	Yes	No	No	No	No	No	No	No	No	NM	A, I, B
			Member	Malti tudu	F	No	Yes	No	No	No	No	No	No	No	No	NM	A, I, B
			Member	Nakul Munda	M	No	Yes	No	No	No	No	No	No	No	No	NM	A, I, B
			Member	Mamta Munda	M	No	Yes	No	No	Yes	No	No	No	No	No	NM	A, I, B
			Member	Sumitra Sardar	F	No	Yes	No	No	No	No	No	No	No	No	NM	A, I, B
			Member	Velaram Manjhi	M	Yes	No	No	Yes	No	No	No	No	No	No	NM	A, I, B

			Member	Mathur Manjhi	M	No	No	No	Yes	No	No	No	No	No	NM	A, I, B
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In column 18 the letters are assigned, as below:

- A. PNP and PRA
 B. Planning
 C. Maintenance of Accounts
 D. Signing of cheques and making payments
 E. Supervision of construction activities
 F. Cost Estimation
 G. Verification & Measurement
 H. Record of labour employed
 I. Social Audit
 J. Any other (please specify).

Table No 4.3: WDT Particulars:

1	2	3	4	5	6	7
S.No	Names of WDT members	M/F#	Age	Qualification / Experience	Description of professional training	Role/ Function*
1	Santosh kumar	M	25	B.Sc(Forestry) MBA(Agri business)/Fresher	NA	E, G, B, D, F

2	Ila Chandan	F	25	B.Sc(Forestry) MBA(Agri business)/Fresher	NA	E, G, B, D, F
3	Biswaroop Chaterjee	M	30	B.com/8 years	PGDRD	A, C, D,E, G, B, F,H
4	Ajay Kumar	M	37	B.Sc(forestry)/8 years	NA	A, C, E, G, B, F,H

*In column 7 description of the letters are as follows:

- | | | | |
|----|--|----|--|
| A. | PNP and PRA | B. | Planning |
| C. | Maintenance of Accounts | D. | Signing of cheques and making payments |
| E. | Supervision of construction activities | F. | Cost Estimation |
| G. | Verification & Measurement | H. | Record of labour employed |
| I. | Social Audit | J. | Any other (please specify). |

Table No. 4.4: PIA particulars

1	2	3
S.No	Particulars	Details of PIA
1.	Type of organization#	G

2.	Name of organization	Kalamandir- The celluloid chapter art foundation
3.	Designation & Address	Kalamandir, 8-10, N road, Bistupur, Jamshedpur-831001
4.	Telephone	0657-2320109
5.	Fax	0657-2320457
6.	E-mail	kalamandir.jsr@gmail.com

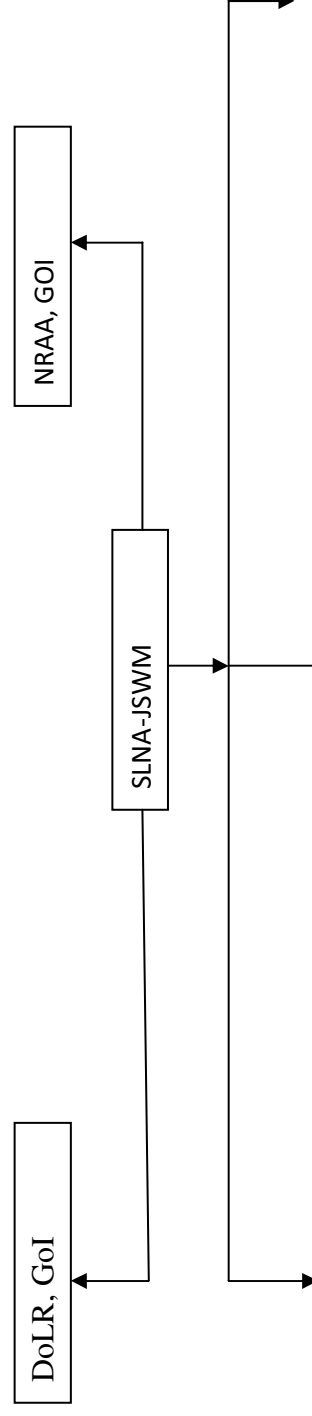
In column no. 8.1.6 (1), only the letter assigned to each type, as given below, needs to be typed.

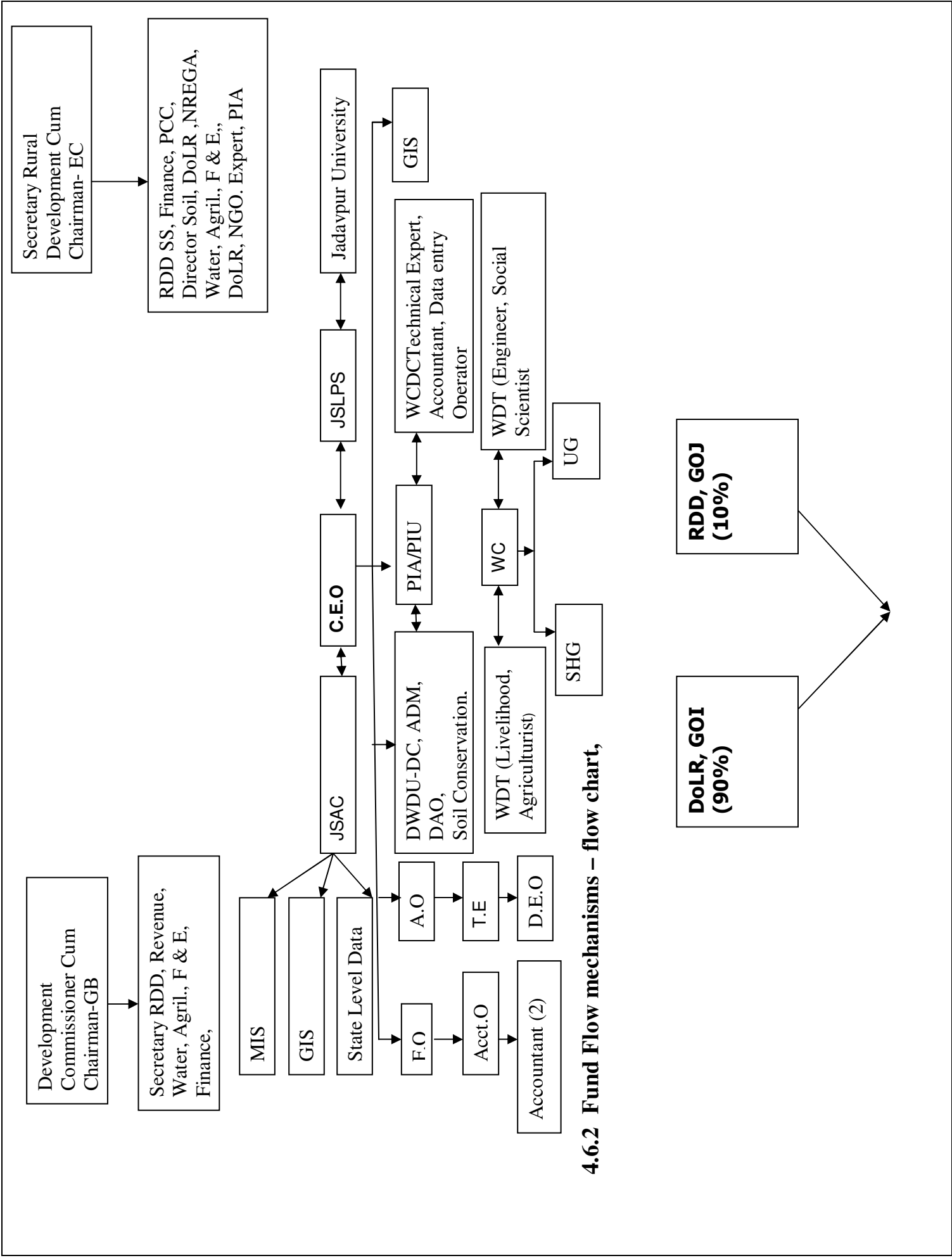
- A. Line Dept. B. Autonomous organization C. Govt. Institute D. Research Bodies
- E. Zila Parishad F. Intermediate Panchayat G. Voluntary Organisations H. Any other (please specify). Table No. 4.5 Bank Account Details

Name of WC/PIA	Name of the Bank/Place	Account No.	Name of the Signatory	Address
Kalamandir	Dena Bank, Jamshedpur	22110024619	Amritava gosh /Malti Madia	Jamshedpur

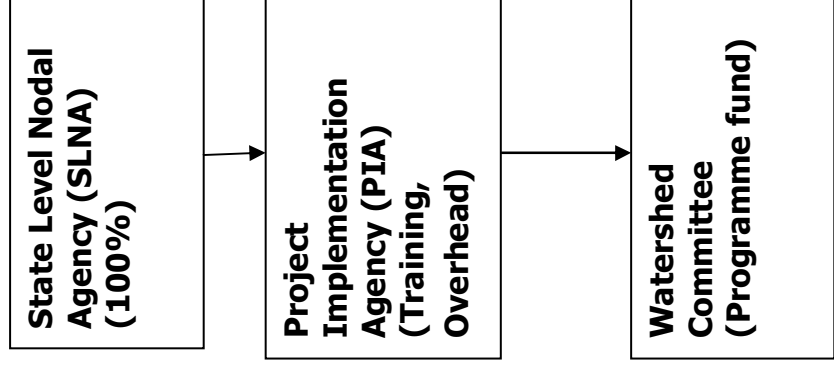
4.6.1 Flow Chart of Institutional Arrangement from District to watershed level

IWMP Institutional Structure





4.6.2 Fund Flow mechanisms – flow chart,



4.6.3 List of Watershed Records to be maintained

a) At Watershed committee level

- Registration certificate
- Bylaws
- DPR
- AAP
- Cash Book
- Project fund pass book
- WDF pass book
- Ledger Book
- Asset Register

Vouchers
Family wise planning detail
Plot no wise planning detail
Land survey
Measurement book
Muster roll
MPR
QPR
PRA exercise chart
Audit report/Social audit report
Photo documents
Project completion report
Common guidelines in hindi
MoU between WC and PIA / WC and SLNA / WC and UGs
Revenue records
b) At PIA Level

Cash book
Computerised accounting system
Vouchers

Documents of Agreements:

4.7.1) Watershed Committee Registration certificate

The Registration is in the process and will be done till April 2011.

4.7.2 MoU – PIA – DWDU, PIA – WC

The MOU is also in process and will be done till April 2011.

4.7.3 Resolution of Gram Sabha ,Aam Sabha, WC approving action plan

The resolution passed by Gram sabha, Watershed committee is attached after the annexure.

4.8 Project Implementation

Table No. 4.8 Convergence plan with IWMP:

1	2	3	4	5	6	7	8
S. No.	Names of Departments with Schemes converging with	Name of activity/task/structure proposed under convergence				Estimated Fund Proposed Under	Level of decision taken for convergence

	IWMP	(a) Structures (b) livelihoods (c) Capacity Building (d) Any other (pl. specify)	Period of Support (Years)	Activity	Size	Convergence (in Rs.)	Block/district
1	MNREGA	a		Pond			District
2	MNREGA	a		Pond			District
3	MNREGA	a		Earthen Ch. Dam			District
4	MNREGA	a		Irrigation Well			District
5	Soil & Water Conservation Dept	a and c		Concrete Ch. Dam With Lift irrigation and guard Wall			District
6	Soil & Water conservation Dept	a and c		Concrete Ch. Dam With Lift irrigation and guard Wall			District
6	MNREGA	b		Plantation of arjun			District
7	Industry Department	c		Cocoon farming			State
8	Planning department	a		Reeling spinning of silk yarn			Block
9	Bank	c		Financial inclusion			State
10	NABARD	b and c		SRI			State
11	RKVY	Drip irrigation		Livelihood			State

Description on methodology of plan adopted

a) Awareness generation interventions

Kalamandir started working in the area in april 2009. In the first phase we had meetings with the people as a part of ice-breaking exercise. In this meeting we made people aware about the watershed and the benefits of it that can be a boon to the people leaving there. We demonstrated this by doing role plays and a small skit so that they understand the concept in a simple and easy way. We also initiated with formation and reviving the SHG's. Some of the SHGs were revived by our members. We also conducted health awareness campaign and made people aware about the watershed in these campaigns. These campaigns were done in various villages so that more and more people can be made aware about the watershed. Pamphlets were distributed and also we have put up various posters in the village showing IWMP and rural development department as our Nodal agency.

b) Initial Orientation program

Series of orientation program were arranged for interaction with our watershed expert Mr Devendra Prasad who has a vast experience of over 30 years in working with various government agencies and also various Implementing agencies. He was supported by WDT members. People freely asked their doubts and they were clarified by us in a systematic way. People asked about the benefits and change the watershed is going to bring in their life and how can they contribute in the watershed. Then their role and procedures to be followed were discussed with them in details.

c) Formation process UGs & Watershed Committee

The watershed committee was formed through micro watershed level meeting. We arranged the meeting in the micro watershed through notice in the local paper, circulated in the area. We also informed the villagers directly by visiting each and every hamlet and distributed pamphlet for the meeting. The meeting initiated with the criteria required for selection as directed by SLNA. It was followed by hamlet level sub group discussion, in which they selected their representative. In the main group they proposed the name of their representatives and the total people participating in the meeting gave their view. Finally the selected members are finalized by minutes of the meeting signed by all the participating members. A meeting was again called by giving notice in the

local daily of the watershed committee to select the secretary, president, treasurer and community mobiliser as per the norms.

DPR preparation process:

- 1) **Data Collection:** The data is primarily collected through household base line survey. The secondary data was collected from block office, district administration, forest department, and Soil and water conservation department. Along with that transect, PRA exercises was also done in each and every hamlet followed by net planning along with families and focused discussion with SHG members.
- 2) **Planning Process** – The planning process was done at the hamlet level through different steps like transect, patch wise demarcation of the hamlet, option generation at the patch , verification of the site and finally by approval through gram sabha and watershed committee.
- 3) **Mapping** – During the planning process maps were made at the village level and finally consolidated at the watershed level through a three days training programme. Maps were made through this process namely drainage map, resource map, land utilisation map, patch wise map and proposed activity map. The maps are attached at the end.
- 4) **Hydro-geological Survey-** The hydro geological data are basically collected from secondary sources but the drainage, erosion and land capability data were collected from villages.
- 5) **Public-Private partnership-** The DPR was prepared through amalgamating thoughts and views at different level. The DPR was prepared with the help of community, SHG, watershed committee. Further it was reviewed, helped and corrected through timely feedbacks from consortium, Kalamandir and Jadavpur University.
- 6) **Consolidation & preparation of DPR document-** The data collected from village was consolidated at the watershed committee level and with the help of Kalamandir the activities are distributed year wise and budgets, estimates are prepared.

7) **Approval by Aam Sabha/Gram Sabha-** After the DPR preparation the final draft is shared at the village level and approval was taken by passing resolution. Further the overall plan of the micro watershed is also approved from watershed committee by passing resolution. The resolution at the village level and watershed committee level is attached.

5.2 Details of Natural Resource Management Activities

Table No. 5.2.1 Soil and Moisture Conservation structures

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	Name of the Activities (Structures)	Name of the Hamlet / Village	Plot Numbers (including Name of the local Patch)	Name of Beneficiaries	Area (in Ha)/ Dimension (in M/ Sq. M / CuM) of Structure	Unit Cost/Hec	Total Cost (in Rs.)	Contribution	Total Grant Amount (in Rs)	Year of Implementation
	Contour trenching	Baredih,	73,51,420	Jagdis Tudu						
		Nishchintpur,		Fudan Munda						
		Manda,	584,176,1207	Sugda						
		Manoharpur		Hansda						
		Punashibad,	1126,1583,15	Matro						
		Parsa,	88	Hansda						
		Karansai,		Kasu tudu						
		Hatibari		Bagal Munda						
				Kunu munda						

	Total		30,000	0.014(R M)	4.28	4.28	4.28	4.28	2,3
Earthern farm bunding	Baredih,	582,122	Suraj munda Chaku Tudu Rupai tudu Tanu Mardi Birju Soren Sheru Soren Karan Tudu	10,000(RMT)	1.32(R M)	0.528	0.264	2.64	2
	Nishchintpur, Manda,								
	Manoharpur	401,895,1295							
	Punashibad,								
	Parsa,	370,219							
	Karansai,								
	Hatibari	378							
	Total	147,134							
		460,194							
Recharge well pit with shaft(4m dia and 3m depth)	Baredih,	350,847,256	Gopinath kisku						
	Nishchintpur, Manda,		Samay murmu						

		Manoharpur	522, 300,	Durgaraj Munda					
		Punashibad, Parsa, Karansai, Hatibari	251, 88, 165, 21, 69, 1047,1142	Beer Singh Munda Dhanu Hansda	43(NO)	0.18	7.74	0.626	6.28
		Total							

Table No. 5.2.2 Vegetative Covers

1	2	3	4	5	6	7	8	9	10
Sl. No.	Name of the Activities	Name of the Hamlet / Village	Plot Nounbers (including Name of the local Patch)	Name of Beneficiaries	Area (in Ha)	Unit Cost(Lakh)	TC(Lakh)	Contribution	Total Grant Amount (in Rs)
		Baredih,							

Table No. 5.2.2 Water Harvesting Structures

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	Name of the Activities	Name of the Village	Plot Numbers	Name of Beneficiaries	Area (in Ha)/ Dimension of Structure	Unit Cost (in lakh)	Total Cost (in Rs.)	Contribution	Total Grant Amount (in Rs)	YOI
		Baredih,	131,186,	Chote Munda						
		Nishchintpur,	416,11	Mansi Munda						
		Manda,		Niyati Munda						
		Manoharpur		Basanti Munda						
		Punashibad,		Bharti Munda						
	Percolation tank with recharge shaft	Parsa,								
		Karansai,								
		Hatibari								
			Total		8(No)	1.03	8.24	0.824	8.24	
	Multi-purpose collector well	Do					10.24	1.077	10.77	

1,2,3

2,3,4

5.3: Structure or Activity Wise Details of Engineering Structure and Vegetative Measures

Table No.5.3.1 : Engineering structures for Soil Conservation Measures (SMC)

1	2	3		4	Proposed plan					
		Area (ha)/(RM)	Farmers		Total units (No./ cu.m./ rmt)	UNIT COST (Rs)	Estimated cost* (In Lakhs)	Farmers contribution (Rs. in lakh)	Grant Portion (Rs. in lakh)	
S. No.	Name of structures				M	W	O	T		
	Contour trenching	30,000		30,000	.70	5.98	.352	7.04	.70	4.28
	Earthern farm bunding	10,000		10,000	.12	1.06	.07	1.25	.12	2.64
	Recharge well pit with shaft	43(No)		43(No)	1.49	5.60	.37	7.47	.74	6.28

(M – Materials, W- wages, O- others, T – Total)

5.3.2: Details of engineering structures for Water Harvesting WHS

M – Materials, W- wages, O- others, T – Total

1	2	3	4					
S. No.	Name of structures	Total units (No./ cu.m./ rmt)	UNIT COST (Rs)	Proposed plan				
				Estimated cost* (Rs. in lakh)				
				M	W	O	T	
	Percolation tank with recharge shaft	8(No)	1.03	.63	8.29	.2	9.12	8.24
	Multi-purpose collector well	3(No)	3.59	7.87	3.03	.337	11.25	10.77

5.3.3: Details of engineering structures for Drainage line treatment

M – Materials, W- wages, O- others, T – Total

1	2	3	4				
			Proposed plan				
S. No.	Name of structures	Total units (No./ cu.m./ rmt)	UNIT COST (Rs)		Estimated cost* (Rs. in lakh)		Farmers contribution (Rs)
			M	W	O	T	
	Boulder Masonry check dam	375(RM)	1.35	6.77	.91	9.03	10.59
	Nala and gully plugging	50(NO)	.10	.256	.044	.40	0.37
	Subsurface dam/dyke	3(NO)	2.1	1.225	.175	3.5	2.34

No. 5.3.3: Details of activities connected with vegetative cover in watershed work

1	2	3	4				
			Proposed plan				
S. No.	Name of structure/ work	Area (ha)	No. of plants	Unit Cost (Rs)	Estimated cost (Rs. in lakh)	Farmer Contribution (Rs. in lakh)	Grant (Rs. in lakh)

1	A forestation	12	7500	31250/hect	3.75	.37	2.69
2	Agro forestry	8	800	31875/hect	2.55	.25	2.55

Chapter 6

Capacity Building Plan (Table No. 6.1 Details of Capacity Building)

1	2	3	4	5	6	7	8	9	10	11
S. No	Name of the Training & Exposure (Knowledge, Skill, etc. at both Being and Doing level)	Unit	Number Of units	Total Number of days per event	Total Trainees (= 3 x 4 x 5)	Cost per Trainee day (in Rs)	Total Cost required for the programme (= 6 x 7 ; in Rs.)	Total Grant Amount (in Rs)	Year of Implementation (In Lakhs)	Monitoring Indicators

SHG/ UG / WC / PI related

A	Promotion of New- SHGs/UG/WC/WDT etc				1	2	3	4
	Orientation Training	Member	180	2	360	236	85,000	85,000

	Orientation Training	UG	100	2	200	425	85,000	85,000	.84				
	Skill development	SHG	180	3	540	111	60,000	60,000	.60				
	Skill development	WC					48,000	48,000	.48				
	Exposure	WC					48,000	48,000	.48				
	Exposure	WDT					48,000	48,000	.36				
	Water Management	UG	100	2	200	240	48,000	48,000	.48				
	Others						1,00,000	1,00,000	.6		.3	.1	
		Sub Total (A)											

NRM related

It will involve various activities Details of which are mentioned in Chapter 5 and Chapter 8

Livelihood for Asset less

A Dona patal and plate making

	Training and Capacity	Landless labours family	8	1	8	31,750	2,54,000	2,54,000	1.27	1.27			
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		Sub-total-B							4,20,000				
C													
Food Processing													
	Food processing	SHG						575000	5,75,000	3.75	1	1	
		Sub-total-C											
D													
Implementing Wadi model													
	Wadi model	Members						2,00,000	2,00,000	1	1	-	
		Sub-total-D							2,00,000				
Grand Total										7561600			

Chapter 7

Phasing of Program and Budgeting

Budget Head	Details of Activities	1st year		2nd Year		3rd Year		4th Year		5th Year		Grand Total	
		Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.
		y.

Management Component 12%	Administration 10%	0	2.23	0.00	2.23	0.0	2.22	0.00	2.22	0.00	2.22	0.00	2.22	0.00	11.12
	Monitoring 1%	0	0.22		0.22	0	0.22	0	0.22	0	0.23	0.00	0.23	0.00	1.11
	Evaluations 1%	0	0.22	0	0.22	0	0.22	0	0.22	0	0.23	0.00	0.23	0.00	1.11
															0.00
	DPR 1%	0	1.11	0	0	0	0	0	0	0	0	0	0	0.00	1.11
	Entry Point Activities (EPA) 4%														
	a) Drinking well Reno	2	0.40	0	0.00	0	0.00	0	0.00	0	0.00	2.00	0.00	2.00	0.40
	b) Nursery Raising (Vegetables and other plants)	4	0.16	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.00	4.00	0.16
	c) Vermi Compost	4	0.24	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.00	4.00	0.24
	d) Vegetable Nursery and creeper Cropping	1	0.88	0	0.00	0	0.00	0	0.00	0	0.00	1.00	0.00	1.00	0.88
e) Livestock Vaccination	4	0.51	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.00	4.00	0.51	
f) Accessibility to Health care: Health Camp for poor people.	4	0.80	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.00	4.00	0.80	
g) Solar street light and solar lantern distribution	8	1.13	0	0.00	0	0.00	0	0.00	0	0.00	8.00	0.00	8.00	1.13	
h) Sewing Machine Distribution	4	0.23	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.00	4.00	0.23	
i) Check Dam (Loose Boulder/Grbion Structure)	1	1.00	0	0.00	0	0.00	0	0.00	0	0.00	1.00	0.00	1.00	1.00	
Soil & Water Conservation on Arable Land															
a) Contour Trenching	0		150.00	2.14	0	0	0.00	0	0.00	0	150.00	0	0.00	2.14	
b) Recharge wells/pits with shaft	0	0	10	1.80	23	4.14	0	0	0	0	33.00	0	0	5.94	

	c) Earthen farm bunding	0	500	1.32	500	1.32	500	1.32	500	1.32	0	150	3.96
	d) Percolation Tank with recharge shaft	0	0	0	0	2.06	0	2.06	0	2.06	0	2.00	2.06
Drainage Line Treatment	a) Boulder(Stone) Masonry Check Dam with recharge shafts	125	3.53	125	3.53	0	0.00	0	0	0	0	375.00	10.59
	b) Nallah and Gully Plugging	15	1.11	15	1.11	15	1.11	15	1.11	0	0	60.00	4.44
	c) Subsurface Dam/Dyke	1	0.78	0	0.00	0	0.00	0	0.00	0	0	0	0.78
Water Harvesting Structures	a) Multipurpose Collector well with/without infiltration gallery in valleys	0	0	1	3.59	1	3.59	0	0	0	0	3.00	10.77
	b) Pond Renovation	0	0.00	1	0.83	2	1.66	3	2.49	0	0	7.00	5.81
	c) Drinking Well Renovation	2	0.22	2	0.22	2	0.22	4	0.44	0	0	10.00	1.10
	d) Lift Irrigation(Lifting device)	2	0.24	2	0.24	2	0.24	2	0.24	0	0	8.00	0.96
Afforestation	a) Nursery Raising for Multipurpose tree species	4	0.24	4	0.24	4	0.24	8	0.48	0	0.00	0.00	1.20
	b) Planting operations	7	0.56	5	0.40	5	0.40	8	0.64	0	0.00	25.00	2.00
	c) Fodder plantation	5	0.35	3	0.21	3	0.21	9	0.63	0	0.00	20	1.40
	d) Other	0	0.50	0	0	0	0.50	0	1.00	0	0.00	0.00	2.00
Horticulture	a) Mango Orchards and Custard apple with intercropping of economic crop	5	0.35	0	0.00	0	0.00	15	1.05	0	0	20	1.40
			0.35								0		

Livelihood for Assetless	a) Agri Demo and Extension	0	1.8	0.00	1.8	0.54	0.66	1.45	0	0	4.26	1.99	
		0	0	0.00	2	0.48	0	0.00	0	0	2.00	0.48	
		206	0.84	0.00	0	0.00	0	0.00	0	0.00	206.00	0.84	
		0	0.00	0.84	0	0.00	0	0.00	0	0.00	305.00	0.84	
		0	0.60	0.00	0	0.00	0	0.00	0	0	60.00	0.60	
		10	0.48	0.00	0	0.00	0	0.00	0	0	10.00	0.48	
			0.48	0.00		0.00		0.00			20.00	0.48	
		20	0	0	0	0	0	0	0	0	3.00	0.78	
		0	0.48	0.30	0	0.00	0	0.00	0	0	0	0	
		0	0.00	0.60	0	0.00	0	0.00	0	0	6.00	0.60	
		0	0.00	0.24	0	0.24	0	0.24	0	0.75	0	0.00	1.23
		0	0.00	1.35	2	1.25	1	0.75	0	0	5.00	3.35	
		Productivity, System Enhancement & Micro Enterprise 13%	a) Stitching unit of 07 member of JLG under SHG in revolving mode	0	0.00	0	2	2.01	0	0.00	0	0	2.00
b) Wadi as a farming model with marginal farmers in revolving mode	0		0.00	0	2	2.01	0	0.00	0	0	4.00	1.00	
c) Model nursery for 05 SHG member	2		0.50	0.50	0	0.00	0	0.00	0	0	0	0	

Livelihood for Assetless 10%	a) Poultry unit of 250 birds with 05 SHG member of one unit	0	2	3.75	2	2.25	0	0.00	0	0	4.00	6.00
	b) Animal Camp	0	2	0.15	2	0.15	0	0.00	0	0	4.00	0.30
	c) Goatry unit of 06 nos goat with one landless family	0	0	0.00	0	0.00	8	2.54	0	0	8.00	2.54
	d) Handicraft	0	4	0.00	4	1.25	0	2.50	0	0	8.00	3.75
	e) Others	0	0	0.00	0	0.25	0	0.76	0	0	0.00	1.01
Consolidation 5%											0.00	5.61
											0.00	0.00
	Total	22.48		### #		28.7 0		21.4 6		8.29	0.00	111. 29

Table No. 7.2 Estimated Benefit Cost Ratio

S.No.	Name of the activity	Total Cost (Lakh)	Total Benefit expected * (Lakh)	BCR	Remarks
	EPA	4.49	6.79	1:1.51	
	NRM	56.25	97.89	1:1.74	
	PE	14.62	37.39	1:2.5	
	Livelihood for Asset less	11.25	36.83	1:3.27	
	Institution and Capacity building	5.62	11.25	1:2.001	
	Overall	92.23	190.15	1:2.06	

Chapter 8

Consolidation and completion of various works

Table No. 8.1: Consolidation of Action Plan

Budget Head	Details of Activities	1st year		2nd Year		3rd Year		4th Year		5th Year		Grand Total	
		Phy	Fin.	Phy	Fin.	Phy.	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.
Management Component 12%	Administration 10%	0	2.23	0.00	2.23	0.00	2.22	0.00	2.22	0.00	2.22	0.00	11.12
	Monitoring 1%	0	0.22		0.22	0	0.22	0	0.23	0	0.23	0.00	1.11
	Evaluations 1%	0	0.22	0	0.22	0	0.22	0	0.23	0	0.23	0.00	1.11
DPR 1%		0	1.11	0	0	0	0	0	0	0	0	0.00	1.11
Entry Point Activities (EPA) 4%	a) Drinking well Reno	2	0.40	0	0.00	0	0.00	0	0.00	0	0.00	2.00	0.40
	b) Nursery Raising (Vegetables and other plants)	4	0.16	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.16
	c) Vermi Compost	4	0.24	0	0.00	0	0.00	0	0.00	0	0.00	4.00	0.24

d) Vegetable Nursery and creper Cropping	1	0.88	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	1.00	0.88
e) Livestock Vaccination	4	0.51	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	4.00	0.51
f) Accessibility to Health care: Health Camp for poor people.	4	0.80	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	4.00	0.80
g) Solar street light and solar lalthan distribution	8	1.13	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	8.00	1.13
h) Sewing Machine Distribution	4	0.23	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	4.00	0.23
i) Check Dam (Loose Boulder/Grbain Structure)	1	1.00	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	1.00	1.00
a) Contour Trenching	0		15000	2.14	0	0.00	0	0.00	0	0.0	0	0.00	15000.00	2.14
b) Recharge wells/pits with shaft	0		10	1.32	23	4.14	0	0.00	0	0.0	0	0.00	33.00	5.94
c) Earthen farm bunding	0		5000	1.32	5000	1.32	1.32	5000	0	5000	0	0.00	15000.00	3.96
d) Percolation Tank with recharge shaft	0		0		0	0.00	2	2.06	0	2.06	0	0.00	2.00	2.06
a) Boulder(Stone) Masonry Check Dam with recharge shafts	125	3.53	125	3.53	125	3.53	0	0.00	0	0.0	0	0.00	375.00	10.59
b) Nallah and Gully Plugging	15	1.11	15	1.11	15	1.11	15	1.11	15	1.11	1	0.00	60.00	4.44
c) Subsurface Dam/Dyke	1	0.78	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00	1.00	0.78

	d) Skill development training to watershed committee members	10	0.34	10	0.34	0	0.00	0	0.0	0	0	20.0	0.68
	e) Water management training user's group	20	0.26	20	0.26	0	0.00	0	0.0	0	0	40.0	0.52
	f) Exposure to watershed committee	0	0.00	1	0.05	1	0.05	6	0.2	0	0	8.00	0.40
	g) Exposure to WDT	0	0.00	1	0.12	1	0.12	1	0.1	0	0	3.00	0.48
	h) Other	0	0.00	0	0.50	0	0.50	0	0.3	0	0	0.00	1.35
Productivity, System Enhancement & Micro Enterprise 13%	a) Stitching unit of 07 member of JLG under SHG in revolving mode	2	1.30	2	1.30	2	1.30	1	0.6	0	0	7.00	4.55
	b) Wadi as a farming model with marginal farmers in revolving mode	2	1.66	2	1.66	2	1.66	2	1.6	0	0	8.00	6.64
	c) Model nursery for 05 SHG member	1	0.48	0	0.00	2	0.96	2	0.9	0	0	5.00	2.40
	d) Others	0	0.00	0	0.60	0	0.20	0	0.4	0	0	0.00	1.20
Livelihood for Assetless 10%	a) Poultry unit of 250 birds with 05 SHG member of one unit	0	0	2	1.70	2	1.70	0	0.0	0	0	4.00	3.40
	b) Animal Camp	0	0	0	0.0	1	0.20	1	0.2	0	0	2.00	0.40
	c) Goatry unit of 06 nos goat with one landless family	0	0	5	0.60	2	0.24	0	0.0	0	0	7.00	0.84
	d) Handicraft	0	0.00	5	0.50	0	0	20	2.0	0	0	25	2.50
	e) Others	0	0.00	0	0.30	0	0.00	0	0.0	0	0	0.00	0.30

1	2	3	4	5	6
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Quantitative: Under these factors area under irrigation will increase. Also the income of the households of the families will increase. SHGs and UGs will be saving within their groups so that they can borrow money within the group and can be free from the clutches of local money lenders. Increase in the irrigated land and increase in the production area have already been mentioned in the DPR in various tables.

Summarize in the table given below (Quantifiable indicators)

S.No	Item	Unit of measurement	Pre-project Status	Expected Post-project status	Remarks
1	Status of water table (Depth to Ground water level)	Meters	7-10mts	4-6 mts	The Water level will increase through the recharging structure Implemented in the project.
2	Ground water structures repaired/ rejuvenated	No.	25	16	Will be repaired under IWMP
3	Quality of drinking water	Description	The quality of water is BAD	The quality will increase	There is no proper structure to retain drinking water
4	Availability of drinking water	Description	Water scarcity from Feb-may	There will be water availability till April	The water level drastically goes below from January onwards
5	Increase in irrigation potential	Hec.	10	97	The WHS constructed from the project will increase the Irrigation coverage.

6	Change in cropping/ land use pattern	Description	the area is basically mono crop	45% of the area will be double cropped	New improved technology will be introduced through training, exposure and follow up.
7	Net increase in crop production area	Hec	240	312	
8	Increase in area under Vegetation/Forest	Hec.	39	70	Area under Horticulture plantation
9	Increase in area under horticulture	Hec.	0	12.5	Area under Horticulture plantation
10	Increase in area under fuel	Hec.	0	5	The average increase of fuel wood will increase from plantation in the periphery of Horticulture area
11	Environmental Impact				
	Change in Soil Loss	mm	3 to 5	2 to 4	The soil loss will be less because of the creation of the agri silvi

						horti models in 22.3 hectares
	Perenniality of flow and change in Run-off					The runoff will reduce highly but to put a value for this needs a detail scientific study
	Recharge of ground water	meter	Not known	3 to 4		The water conservation structures are main focus and thus will create 3-4 meter ground water recharge
13	No. of SHGs Promoted	No.	1	12		There is a SHG in the project area Under IWMP project WDT will rejuvenated the existing SHG and also form New SHGs.
14	Increase in no. of livelihoods	No.	0	87		The livelihood activity of the project will increase the financial condition of the asset less
15	Increase in income	Rs.	8000	13000		Overall implementation will increase the crop production; Livelihood activity will increase the per capita income.
16	Status of Migration.	No	190	80		The employment will be generated in the project area.
17	Credit linkage with banks	%	0	5		The SHG will be linked through Bank
18	WDF collection &	Rs	0	5,70,000		The WDF fund will be collected

	management					through different NRM, Livelihood and productivity enhancement Activity.
19	Summary of lessons learnt					

Table No.9.3: Backward and Forward Linkages

Type of Marketing Facility	Name of the institution	Pre-project (no.)	Expected post project status
(A) Backward linkages			
(i) Seed supply system	Farmers club	0	Farmer club members will look after the needs of the farmers.
(ii) Fertilizer supply system	Farmers club	0	Farmer club members will look after the needs of the farmers
(iii) Pesticide supply system	Farmers club	0	Farmer club members will look after the needs of the farmers
(iv) Credit institutions	Bank/SHG	0	Internal Credit-SHG, External credit from local commercial bank
(v) Extension services	Kalamandir	0	Kalamandir will continue giving its advice and services to the farmers
(vi) Nurseries	SHG	0	SHG will supply the saplings to the farmers.
(B) Forward linkages			
(i) Food Processing	SHG	0	A unit will be set up which will be run by SHG members using the local raw materials.
(ii) Markets / Mandis		0	Kalamandir will work closely with the SHGs and farmer club to provide them market for their products.