GOVERNMENT OF MEGHALAYA

DEPARTMENT OF SOIL & WATER CONSERVATION
DETAIL PROJECT REPORT
OF
LOWER DABANG MICRO WATERSHED
UNDER
INTEGRATED WATERSHED MANAGEMENT PROGRAMME
WGH IWMP –IX
2010-2011

TURA SOIL & WATER CONSERVATION(T)DIVISION
WEST GARO HILLS, MEGHALAYA
TIKRIKILLA C&RD BLOCK

SUMMARY

Name of the Sate	:	Meghalaya
Name of the District	:	West Garo Hills
Name of the C&RD Block	:	Tikrikilla
Name of the Villages	:	Dabang-Dodinpara
Name of the Project	:	IWMP-IX
Total Geographical Area	:	644.10 Ha
Total Treatment Area	:	500 Ha
Total Project Cost	:	75 lakhs
Project Duration	:	5 Years
Project Implementing Agency	:	Soil & Water Conservation Territorial Division, Tura.

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INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Lower Dabang (IWMP) Project is located in Tikrikilla C&RD Block, West Garo Hills District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Dabang Stream and its tributaries flowing in a north to south direction. The total area is 644.10Ha. with 500 Ha to be treated under the Integrated Watershed Management Programme (IWMP).The Project area is located at a distance of about 17 km from Tikrikilla the C & R D Block Headquarter and about 142 km from Tura the District Headquarter . Only one village is covered under the project– Dabang Dondinpara

1.2 Micro-watershed Information:

The micro-watershed code is …….. as codified by the North East Space Application Centre (NESAC). The total area of the micro-watershed is 644.10 Ha., with 500 hectares to be treated under the Integrated Watershed Management Programme (IWMP).

1.3 Need and Scope for Watershed Development:

The micro-watershed Lower Dabang falls under the High Priority category as per the prioritization of watersheds by the North East Space Application Centre (NESAC). The farmers are all marginal and 20 households are below the poverty line, which is 16.2% of the total households. Jhum cultivation is practiced by most of the inhabitants of these villages on the slopes. Even though the area receives ample rainfall during the monsoons, there is acute shortage of water during the dry seasons and the villagers have to travel long distances for fetching water even for domestic use.

1.4 Other developmental projects/schemes running in the Project Area:

The other developmental projects/schemes undertaken in the Project Area are:-

1. NREGS

CHAPTER II

BASIC INFORMATION OF THE PROJECT AREA

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BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The Project area is located at West Garo Hills. It is situated at a distance of about 17 km from Tikrikilla the Civil Sub-Divisional Head Quarter and about 142 km from Tura the District Headquarter which is also the State Capital. The geographical location is between 90˚18’0.00”E to 90˚20’52.80” Longitude and 25˚55’55.20”N to 25˚53’45.60”N Latitude. There is only one village within the Watershed – Dabang dodinpara.

2.2 Physiography:

The physiography of the micro-watershed is highly undulating. The altitude ranges from a minimum of 40 m to a high of 144 m above mean sea level. In the lower reaches (valley lands) the slope ranges from 1% to 5% however, in the middle and upper reaches it is greater than 25% , and can reach up to 50%

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
40 - 144	1 – 50%	2 Order Micro W/S	Dabang Dobakkol Dimotnang Jangga Gitchetra Chengmikron Wage Wanjing Rongbret Komeng	Flat and Gentle Slopes

2.3 Drainage:

The major stream draining the micro-watershed is the Dabang which is a 2^{th} - 3^{rd} order stream flowing in a north-south direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Dabang.

2.4 Soil:

Soil Texture is gravelly on the sloping lands and clayey to sandy clay on the low lying areas. Soil depth varies from very shallow to deep. Soils are permeable and generally acidic in nature. Owing to highly undulating land form and absence of good vegetation cover, the area is exposed to erosion hazards. The soil nutrient status in the area shows a general trend of low phosphorous content.

Table 2.2: Details of soil erosion in the project areas:

1	2	3	4	5	6	7	8	9
Sl. No.	Names of State	Names of District	Names of Projects	Cause	Types of erosion	Area affected (ha)	Run-off (mm/ year)	Average soil loss (Tonnes/ ha/ year)
1	Meghalaya	West Garo Hills	WGH IWMP-IX	Water erosion:				
				a	Sheet	500	NA	NA
				b	Rill		NA	NA
				c	Gully		NA	NA
				Sub total		500		
				Wind erosion		Nil	Nil	Nil

2.5 Climate:

The Watershed lies under Central Hyper-thermic Agro-climatic zone. The average annual rainfall is about 3600mm. Monsoon normally starts in the middle of May and last till middle of October. About 80% of the total annual rainfall is received from June to September. May and June are the hottest month recording average maximum temperature of 32°C. December and January accounts for lowest of 10°C to 12°C.

Table 2.3: Agro-climatic zones of the project areas, soil types, average rainfall and major crops.

1	2	3	4	5	6	7		8	9	
Sl. No.	Name of State	Name of the Agro-climatic zone	Area (in ha)	Names of the districts	Names of the Projects	Major soil types		Average annual rainfall in mm (preceding 5 years' average)	Major crops	
						a) Type	b) Area (ha)		a) Name	b) Area (ha)
1	Meghalaya	Hot, moisture	500	West Garo Hills	WGH IWMP-IX	Fine loamy soils. Coarse loamy soil.	261.1 383	3040mm	Rice	27.60
									Maize	20.00
									Ginger	22.00
									Vegetables	6.00
								Total		**75.60**

2.5 Agriculture:

Agriculture is the primary occupation of the people of the area. The people mostly practice jhum. The jhum plots vary from 1to1.5 Ha, and are cultivated for 3-4 years. The principal agricultural crops grown of the jhum fields are potato, sweet potato, millet, maize, yam and vegetables. Fruit crops are well suited in the lower reaches which include jackfruit, mango, pineapple, banana, litchi etc. The slopes of the Dabang Dodinpara are also very suitable for betelnut, betel leaf, black pepper which contribute to the income of the people.

Table 2.4: Crop yield and production

Crops	Area (ha)	Average Yield (Qtl) per ha.	Total Production (Qtl.)
Rice	27.60	33	910.00
Maize	20.00	15	300.00
Ginger	22.00	40	880.00
Vegetables	6.00	25	150.00

2.6 Natural Vegetation:

The tree species common to the watershed area includes Mirbelia champaca,Artocarpus chapalasa,Gmelina arborea,Dendrocalamus bambusa Spp,Shorea robusta,Vitree pedangcularis,Bohemia malabarica, Sterospurmum chelanaidis,Schima walichii,Bombax ceiba etc. However, due to jhum cultivation the forest cover of the area has reduced considerably.

2.7 Socio-Economic Profile:

Economically, the area is perhaps the most backward in the district. The main reason is due to the absence of road communication, primitive way of agricultural practices like jhumming and the difficult terrain of the area.

Demographic Status: The total households in the watershed project are 82 with a total population of 368 of which 171 are male and 197 are female. The detail of the household in the village in the watershed project is as follows:

1. Dabang Dodinpara 82 Nos

Infrastructure facilities **:**

2.1.1 *Roads:* There is no all weather road but the village within the Project Area is connected by the kutcha constructed under NREGS

2.1.2 *School:* there are only two L.P Schools within the Project Area run either by the Mission or by the Government.

2.1.3 *Electricity :* There is no electricity under this Project Area .

2.1.4 *Health :* There is no Community Health Centre or sub-cencentre and the local population have to either depends on facilities available at Raksamgre at a distance of 5 km. .

2.1.5 *Water Supply :There is no drinking water supply from P.H.E but there are three open ringwells provided by C & RD Block.* However, during lean season the entire population have to depend on springs available in the area as the water from ringwell is not sufficient to meet the daily requirement.

2.1.6 *Market :* There is no any market under this project area but the people of this area sell their products at Raksamgre weekly market which is 5 km away from the watershed area.

Table 2.5: Infrastructure Status.

1	2	3		4			
Name of District	Name of Project	Parameters:		Status			
WGH	IWMP-IX	(i)	Whether connected to the main road by an all weather road	NIL			
		(ii)	No. of households without electricity	82			
		(iii)	No. of households without access to drinking water	60			
		(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)	(P)	(S)	(HS)	(VI)
				2	NIL	NIL	NIL
		(v)	Distance of project village from nearest Primary Health Centre	5 km			
		(vi)	Distance of project village from nearest Veterinary Dispensary	5 km			
		(vii)	Distance of project village from nearest Post Office	5 km			
		(viii)	Distance of project village from nearest Banks	17 km			
		(ix)	Distance of project village from nearest Markets/ mandis	5 km			
		(x)	Distance of project village from nearest Agro-Industries	NIL			
		(xi)	Total quantity of surplus milk	NIL			
		(xii)	No. of milk collection centres (e.g. Union (U)/ Society (S)/ Private agency (PA)/ Others (O))	(U)	(S)	(PA)	(O)
				NIL	NIL	NIL	NIL
		(xiii)	No. of villages with access to Aganwadi Centres	1			
		(xiv)	No. of worship place	2			
		(xv)	No. of Community Hall	NIL			
		(xvi)	No. of water tanks/Ringwell/Spring chamber	3			

2.8 Livestock:

There are only 3 kinds of livestock farming being farmed in the area viz. Piggery, Poultry and Bee-Keeping or Apiculture.

Table 2.6: Existing livestock population

Type of Animal	Population
Piggery	72
Poultry	633
Cattle	218
Goattery	17

2.9 Land ownership: The proposed project is under the "A'king land tenure system."prevailing in Garo Hills District of Meghalaya in which a land is held a particular class {Mahari) under the custody of the Head of the Clan or a Village Chief called "Nokma" recognized as such by the Garo Hils District Councils.

Table 2.7: Land Holding:

1	2	3	4	5	6		
Name of District	Name of the Project	Types of Farmer	No. of households	No. of BPL households	Land holding (ha)		
					Irrigated	Rainfed	Total
WGH	IWMP-IX	(i) Large(>5 Ha)	-	-	-	-	-
		(ii) Small(1-5 Ha)	-	-	-	-	-
		(iii) Marginal(<1 Ha)	82	20	-	27.60	27.60
		(iv) Landless	-	-	-	-	-
		Sub - Total	82	20	-	27.60	27.60

Table 2.5: Common Property Resources in the Project Area

1	2	3	4				5			
Name of District	Name of the Projects	CPR Particulars	Total Area (ha) Area owned/ In possession of				Area available for treatment (ha)			
			Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Community)	Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Community)
West Garo Hills	WGH IWMP-IX	(i) Wasteland/ degraded land	-	-	-	419.72	-	-	-	323
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	68.99	-	-	-		-	-	-
		(iv) Private agriculture land	-	-	-	-	97	-	-	-
		(v) Forest	-	-	-	23.13	-	-	-	10.00
		(vi) Village Ponds/ Tanks	-	-	-	-	-	-	-	-
		(vii) Community Buildings	-	-	-	1.00	-	-	-	-
		(viii) Weekly Markets	-	-	-	Raksamgre	-	-	-	-
		(ix) Permanent Markets	-	-	-	-	-	-	-	-
		(x) Temples/ Places of worship	-	-	-	1.00	-	-	-	-
		(xi) Jhum Cultivation	-	-	-	-	-	-	-	-
		(xii)Permanent Cultivation	117.92	-	-	-	-	-	-	-
		(xiii) Habitation including streams	12.34	-	-	-	-	-	-	70
	Total		**199.25**	-	**-**	**444.85**	**97**	**-**	**-**	**403**

2.10 Land use and land cover : As per the land use land cover map the Watershed area has been broadly classified into the following land uses.

a) Agricultural land-crop land-kharif crop = 117.92 Ha

b) Tree clad Area-close = 23.13 Ha

c) Tree clad Area-open = 419.97 Ha

d) Wastelands-barren Rocky/Stony waste = 14.09 Ha

e) Horticulture Plantation = 68.99 Ha

Total = **644.1 Ha**

2.11 Problems of the Area : The primary problems of the area is jhumming. Majority of the population depends on Jhum Cultivation for their livelihood. Vast tracks of abandoned Jhum areas are converted to Broomstick cultivation areas which has further degraded the capability of the land. Mention may also be made here that the land use categorized as Tree-clad Area-open in the land used land cover map generated using Satellite Images of 2005 – 2006 are actually Broom-stick cultivation areas. In other words, unscientific method of cultivation has not only reduced the Jhum cycle, low crop yield but had adversely affected the ecological balance within the area. Road communication is another infrastructural problems that the area is facing where large volume crops like pineapple, jackfruits etc do not find their way into the market which has resulted in poor socio-economic status of the people. However, to control or to overcome the said problems an innovative approach has been formulated and documented in the Action Plan or the Treatment Plan the Detailed Project Report. The method of identification of the problems is through the Participatory Rural Appraisal Exercises conducted in all the villages within the Watershed.

CHAPTER III

PROJECT PLANNING & INSTITUTION BUILDING

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3.1 Scientific Planning

i) Base Line Survey: To establish a benchmark for assessing the impact of any intervention (pre-project & post project) a baseline survey is essential. The baseline survey included household census & socio-economic survey by using structured and semi –structured questionnaires, bio-physical survey to identify and assess the status of natural resources in the project area.

ii) Participatory Rural Appraisal: To further obtain information on the project area, the people, resources, various PRA techniques like resource mapping, social mapping, seasonal calendars, matrix ranking, Venn diagrams were used.

iii) GIS & Remote Sensing: To facilitate the process of prioritization and planning Geographic Information System was use. The land use and land cover (LULC) maps were prepared by the North Eastern Space Application Centre (NESAC) using the LISS III images (2006). The activities were located on the field by using GPS and accordingly transferred to the maps on GIS platform.

Table 3.1: Details of Scientific Planning and Inputs in IWMP projects:

1	2	2
Sl.No.	**Scientific criteria/ inputs used**	**No. of projects in which scientific criteria were used**
A.	**Planning**	
	Cluster approach	3
	Whether technical back-stopping for the project has been arranged? If yes, mention the name of the Institute.	YES i)NESAC,Nongsder ii)SNLA,GIS lab,Shillong
	Baseline survey	YES
	Hydro-geological survey	GIS survey/engineering Survey
	Contour mapping	Toposheet(1:50000)
	Participatory Net Planning (PNP)	PRA exercise

1	2	2
	Remote sensing data-especially soil/ crop/ run-off cover	YES
	Ridge to Valley treatment	YES
	Online IT connectivity between	
	(1) Project and DRDA cell/ZP	YES
	(2) DRDA and SLNA	YES
	(3) SLNA and DoLR	YES
	Availability of GIS layers	
	1. Cadastral map	NO
	2. Village boundaries	NO
	3. Drainage	YES
	4. Soil (Soil nutrient status)	YES
	5. Land use	YES
	6. Ground water status	NO
	7. Watershed boundaries	YES
	8. Activity	YES
	Crop simulation models#	NO
	Integrated coupled analyzer/ near infrared visible spectroscopy/ medium spectroscopy for high speed soil nutrient analysis	NO
	Normalized difference vegetation index (NDVI)#	YES
	Weather Stations	NO
B.	**Inputs**	
	1. Bio-pesticides	NO
	2. Organic manures	YES
	3. Vermi-compost	NO
	4. Bio-fertilizer	YES
	5. Water saving devices	YES
	6. Mechanized tools/ implements	NO
	7. Bio-fencing	YES
	8. Nutrient budgeting	YES
	9. Automatic water level recorders & sediment samplers	NO
	Any other (please specify)	

3.2 Project Implementing Agency:

The PIA is the Soil & Water Conservation Territorial Division, Tura West Garo Hills District of Meghalaya. The Project Manager will be the Divisional Soil and Water Conservation Officer and will be assisted by an Asst. Soil & Water Conservation Officer along with WDT members in which expertise is drawn from the relevant fields for achieving smooth and successful implementation of the project.

1	2	3	
Names of Districts	Names of projects	Details of PIA	
West Garo Hills	W.G.H. IWMP-IX	(i) Type of organization#	Government
		(ii) Name of organization	Soil & Water Conservation (T) Division,
		(iii) Designation & Address	Divisional Officer, Tura Soil & Water Cons.(T) Division, W.G.H, Tura Meghalaya.
		(iv) Telephone	03651-222354
		(v) Fax	03651-222354
		(vi) E-mail	turadivsoil@gmail.com

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3.3 Institution Building

i) Watershed Committee (WC)

The Watershed Committee of the Lower Dabang Watershed IWMP-IX was constituted with the active involvement of the villagers with strong support of the Traditional Institutions (Village Durbar/Council). The Lower Dabang Watershed Committee has been registered under the Society Registration Act 1983.

Table 3.2: Details of Watershed Committees (WC):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Names of the Districts	Names of projects	Names of WCs	Date of Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educational ualify-cation	Function/s assigned#
W.G.H	W.G.H-IWMP-IX	Lower Dabang	Under process.	President	M		ST									Class I X	A to I
				Secretary	M		ST									P.U (Arts)	A to I
				Member	9 M		ST									Class III – VIII	A to I
				Member	2 F		ST										A to I
				Member													

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).

ii) Self Help Group

Awareness programmes were organized in the villages to inform and sensitize the people on the essence of organizing themselves in to homogenous groups for uplifting their livelihood especially for the women and the landless. Discussions were held at length with the WDT on the scope and procedure of group formation, availing credit, grading of the groups and so on.

Table 3.3: Details of Self Help Groups (SHGs) in the project areas:

1	2	3				4				5			6		
Names of the Districts	Names of projects	Total no. of registered SHGs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		With only Men	With only Women	With both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
W.G.H	W.G.H-IWMP-IX		3 Nos		3 Nos	(i) Landless	-	-	-	-	-	-	-	-	-
						(ii) SF	30	-	30	30	-	20	NA	NA	NA
						(iii) MF	-	-	-	-	-	-	-	-	-
						(iv) LF	-	-	-	-	-	-	-	-	

iii) User Group

To manage the assets created and ensure their sustainability User Groups will be formed. The people have been sensitized on the importance of ensuring that the assets created are sustainably used and the essentiality of having User Groups for maintenance and operation of their assets.

Table 3.4: User Group Details

1	2	3				4				5			6		
Names of Districts	Names of Projects	Total no. of Ugs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		Men	Women	Both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
W.G.H	W.G.H. IWMP-IX					(i)Landless									
						(ii) SF									
						(iii) MF									
						(iv) LF									
Total					NIL				NIL			NIL			NIL

CHAPTER IV

PROJECT ACTIVITIES

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PROJECT ACTIVITIES

4.1 Preparatory Phase:

i) Entry Point Activities (EPA)

(Financial – Rs. in lakh)

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	State	District	Names of Project	Amount earmarked for EPA	Entry Point Activities planned	Estimated cost	Expenditure incurred	Balance	Expected outcome	Actual outcome
1	Meghalaya	W.G.H	W.G.H IWMP-IX	3.00 Lakh	Construction of Spring Chamber/Ringwell	3.00 Lakh	-	-	NA	Increase in availability of drinking water

ii) Other activities of Preparatory Phase:

1	2	3	4	5	6	7	8	9	10	11	12	13
District	Name of Projects	Initiation of village level institution	Capacity building	IEC activities	Baseline survey	Hydro-geological survey	Identifying technical support agencies	Resource agree-ments	Preparation of DPR	Evaluation of DPR	Any other (please specify)	Cost incurred (Rs. In lakh)
W.G.H	W.G.H IWMP-IX	a) Rapport Building b) Community meeting c)Formation of	a) Project concept/roles and responsibility of W.C b) Concept/roles and responsibility of SHG and UG c) Concept/roles and responsibility of of WDT members d) Off-campus exposure trip to research Institutes/Established farms etc.	a)Pamplets b)Banners c)Posters	a)Participatory Rural Appraisals b)Socio Economic Survey	a)GPS survey b)Engi-neering Survey	a) NIRD b)SIRD c)ICAR d)NEHU	a) NOC with village headman for under-taking develop-mental works b) Agreement for convergence of NREGS scheme with IWMP with VEC.	a)Resource inventory works	Done		1.5

4.2 Watershed Works Phase:

4.2.1 Activities related to surface water resources in the project areas:

1	2	3	4	5	6			7										
Sl. No	Name of States	Name of Districts	Name of Projects	Type of structures	Pre Project			Proposed Project										
								Augmentation/ repair of existing structures				Construction of new structures				Total target			
					No	Area irrigated (ha)	Storage capacity	No	Area to be treated (ha)	Storage capacity	Estimated cost (in lakhs)	No/RM	Area to be treated (ha)	Storage capacity (per unit)	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (m^3)	Estimated cost
1	Meghalaya	W.G.H	W.G.H IWMP-IX	Dug out Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				C.C Check cum Irrigation Dam	-	-	-	-	-	-	-	4	90	765	10.00	4	90	765	10.00
				Conservation Pond	-	-	-	-	-	-	-	4	135	1950	10.00	4	135	1950	10.00
				Earthen Irrigation Channel	-	-	-	-	-	-	-	400. rmt	60	-	0.20	400 rmt	60	-	0.20
				Water harvesting farm pond	-	-	-	-	-	-	-	4	130	1320	10.00	4	130	1320	10.00
			Total										**415**	**2085**	**30.20**		**415**	**2085**	**30.20**

8											9	10
Achievement due to project												
Augmentation/ repair of existing structures				Construction of new structures				Total achievement			Change in storage capacity (col 8-6)	Change in irrigated area (ha) Col. (8-6)
No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	Area irrigated (ha)	Storage capacity	Estimated incurred		-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-

4.2.2 Activities related to recharging ground water resources in the project areas:

1	2	3	4	5	6		7								8								9
S. No.	Names of States	Names of Districts	Names of project	Type of structures	Pre-project		Proposed target								Achievement due to project								Change in irrigated area (Col. 8-6) (ha)
							Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total target		Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total achievement		
					No.	Area irrigated (ha)	No.	Area to be irrigated (ha)	Estimated cost	No.	Area to be irrigated (ha)	Estimated cost	Area to be irrigated (ha)	Estimated cost	No.	Area irrigated (ha)	Expenditure incurred	No	Area irrigated (ha)	Expenditure incurred	Area irrigated (ha)	Expenditure incurred	
1	Meghalaya	West Garo Hills	WGH IWMP-IX	(i)Dug out Pond	0	NIL		NIL	0	7	15	3.50	15	3.50	0	NIL	0	0	NIL	0	NIL	0	0
				Total for the project							**15**	**3.50**											

4.2.3 Activities executed by User Groups in the Project Areas.

	2	3						
Names of Districts	Names of Projects	Major activities of the UGs –Targets						
		Structure/ activity proposed				No. of UGs involved	Estimated Cost	Amount of WDF to be collected (Rs.)
		Sl. No.	Type	No.#	Treatment (ha)			
W.G.H	W.G.H IWMP-IX	1.	C.C Check-cum irrigation dam	4 Nos	90 Ha	2	10.00	0.50
		2	Stone masonry Protection Wall	8Nos	90 Ha	2	4.00	0.20
		3	Earthen Irrigation Channel	400 rmt	60 Ha	1	0.20	0.01
			Total		**240 Ha**	**5**	**14.20**	**0.71**

4.2.4 Activities executed by User Groups in the Project Areas:

4									
Major activities of the UGs – Achievements									
Structure/ activity				No. of UGs involved	Expenditure incurred (Rs.)	No. of mandays			Amount of WDF collected (Rs.)
Sl. No.	Type	No.#	Treated Area (ha.)			SC	ST	F	
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

4.2.5 Activities related to livelihoods by Self Help Groups (SHGs) in the project areas:

1	2	3		
Names of the Districts	Names of projects	Major activities of the SHGs		
		Name of activity	No. of SHGs involved	Average annual income from activity per SHG
West Garo Hills	W.G.H IWMP-IX	Piggery	5	0.65
		Poultry	5	0.40
	Total		**10**	**1.05**

4.2.6 Activities related to livelihoods by Self Help Groups (SHGs) in the project areas:

4	5					6	7	8			9	10
No. of SHGs given training	Total assistance received by the SHG (Amount in Rs.)					Total annual Income generated (Rs.)	Total annual Savings (Rs.)	No. of SHGs Graded as			Total Amount of loan sanctioned by the bank(s)	No. of SHGs federated
	Loan from revolving fund	Training	Material	ncome generating ctivities	Amoun t			I	II	III		
	NIL	1.6	NIL	Piggery	1.50	1.30	0.60					
				Poultry	1.50	0.80	0.40					

4.2.7 Other activities of watershed works phase:

1	2	3		4		5		6		7		8		9		10		11		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Crop demonstrations		Horticulture & Cash Crop Development		Veterinary services		Fishery development		Non-conventional energy		Any other (please specify)		Total cost incurred (Rs. In lakhs)
		(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b)	(a)	(b)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b)	(a)	(b)	
W G H	W.G.H IWMP-IX	i)Improvement of degraded forest(10 Ha)	0.36	i)check dam. ii)protection wall. iii)farm pond. iv)dug out pond. v)Channel.	10.00 4.00 10.00 7.50 0.20	i) Poly bag Rubber (21,000 plant)	5.25	i)Wet Terrace(12Ha)	2.40	-	-	i)Rubber plantation(40 Ha) ii)Arecanut plantation (30 Ha)	4.40 2.64	i)piggery ii)poultry	1.50 1.50	Fishery-cum-piggery(6unit)	1.50	-	-	Kitchen Garden (140Ha)	3.50	
	Total		**0.36**		**31.70**		**5.25**		**2.40**				**7.04**		**3.00**		**1.50**				**3.50**	**54.75**

4.2.8 Details of engineering structures in watershed works:

1	2	3	4			5			6	7						8						
District	Project	Name of structures	Type of treatment			Type of land			Executing agency	Target						Achievement						
			(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land Dev. (L)	(i) Pri-vate	(ii) Com-munity	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	No. of units (No./ cum./ rmt)	Estimated cost (Rs. in lakh)				Expected month & year of completion (mm/yyyy)	No. of units (No./ cu.m./ rmt)	Expenditure incurred (Rs. in lakh)				Status of comple-tion	Actual month & year of completion (mm/yyyy)
											M	W	O	T			M	W	O	T		
W.G.H	W.G.H IWMP-IX																					
		Dug out Pond		√		√			UG/WC	18 Nos		7.50		7.50	31/3/2013							
		Check Dam		√			√		UG/WC	4 Nos	4	6.00		10.00	31/3/2013							
		Wet Terrace			√	√			UG/WC	12 Nos		2.40		2.40	31/3/2013							
		Stone masonry Protection Wall		√			√		UG/WC	8 Nos	1.6	2.40		4.00	31/3/2013							
		Earthen irrigation Channel		√			√		UG/WC	400 rmt		0.20		0.20	31/3/2013							
		Water Harvesting farm pond		√		√			UG/WC	4 Nos	4.00	6.00		10.00	31/3/2013							
		Total									**9.60**	**24.50**		**34.10**								

4.2.9 Details of engineering structures in watershed works.

9																		
Outcomes																		
Reduction in run off (cu.m)	Area treated# (ha)	Water level (m)		Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries					
		Pre-project	Post project	Pre-project	Post project	Pre-project	Post project	SC	ST	Others (Men)	Women	Total	SC	ST	Others	Women	Total	
NA	420	NA	NA	Paddy (18 Qtls)	Paddy (33 Qtls)	22,000	40,000		16320		8000	24320		50		32	82	
				Maize (15 Qlts)	Maize (20 Qlts)	10,000	14,300											

2.10 Details of activities connected with vegetative cover in watershed works:

1	2	3	4			5			6	7				8			
			Type of treatment			Type of land			Executing agency	Target				Achievement			
District	Project	Name of structure/ work	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Community	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	Area (ha)	No. of plants	Estimated cost (Rs. in lakh)	Expected month & year of comple-tion (mm/ yyyy)	Area (ha)	No. of plants	Expendi-ture incurred (Rs. in lakh)	Actual month & year of comple-tion (mm/ yyyy)
WGH	IWMP-IX	Improvement of degraded	R		C				WC	10 Ha	1000	0.36	31/3/2012				
		Rubber Plantation	R			P			Farmers	40 Ha	18,000	4.40	31/3/2014				
		Arecanut	R			P			Farmers	30 Ha	36,000	2.64	31/3/2014				

in case two or more activities are executed over same area, the figures in area treated should be accounted only once and should reflect only the actual watershed area treated.

4.2.11 Details of vegetative structures in watershed works: Phase – II (contd.):

9																
Outcomes																
Name of activities	Reduction in run off (cu.m)	Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries					
		Pre-project	Post project	Pre-project	Post project	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	
Improvement of degraded	NA	0					230		130	360		46		20	66	
Rubber Plantation	NA	0	122	0	1464,000		4200		1800	6000		30		10	40	
Arecanut	NA	315	775	252,000	620,000		2400		1020	3420		25		5	30	
Total		**315**	**897**	**252,000**	**2084,000**		**6830**		**2950**	**9780**		**101**		**35**	**136**	

4.2.12 Details of allied / other activities:

1	2	3	4			5	6		7	
			Type of land			Executing agency	Target		Achievement	
District	Project	Name of activity@	(i) Private	(ii) Community	(iii) Others (landless)	(i) UG (ii)SHG (iii) Others (pl. specify)	Estimated cost (Rs. in lakh)	Expected month & year of completion (mm/yyyy)	Expendi-ture incurred (Rs. in lakh)	Actual month & year of completion (mm/yyyy)
West Garo Hills	W.G.H IWMP-IX	Kitchen gardening	√		Individual	Private	3.50	31/3/2014		
		Piggery			Individual	SHG/UG	1.50	31/3/2012		
		Poultry			SHG	SHG/UG	1.50	31/3/2013		
		Fishery cum piggery unit			SHG	Private	1.50	31/3/2014		
		Rubber Poly Bag	√		SHG	SHG/UG	5.25	31/3/2014		
		Dugout Pond	√		Individual	Private	4.00	31/3/2014		
		Total					17.25			

(Contd.)

* from column no. 2, no. of States; from column no. 3, no. of Districts; from column no. 4, total no. of Projects; from column no. 5, activity-wise totals, from column no. 6, type-wise totals, from coulmn no. 7, agency-wise totals, from column no. 8, total estimated cost, from column no. 9, total expenditure incurred, structure-wise no. of completed works, from column no. 10, item-wise totals, for the entire country may be indicated at the end of the table

@The activities given in this column are merely indicative and States are free to choose any other activity suited to the project area.

4.2.13 Details of allied / other activities:

	8											
	Outcomes											
	Income (Rs.)		Mandays generated					No. of beneficiaries				
Name of activities	Pre-project	Post project	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
Kitchen gardening	6000-7000	20,000-25,000		2500		2000	4500		20	NIL	10	30
Piggery	30,000-35,000	60,000-70,000		300		700	1000			NIL	30	30
Poultry	12,000-15,000	40,000-45,000		400		600	1000			NIL	30	30
Fingerlings	NIL	50,000-60,000		150		100	250		15	NIL	10	25
Rubber budded poly bag nursery	NIL	85,000-90,000		3000		1500	4500		30	NIL		30
	Total			**6350**		**4900**	**11250**		**65**		**80**	**145**

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

1	2	3	4	5	6				7						
					Target				Achievement						
Names of the Districts	Names of projects	Name(s) of the villages	CPR particulars	Activity proposed	Target area under the activity (ha)	Estimated expenditure (Rs.)	Expected no. of beneficia-ries	Estimated contri-bution to WDF (Rs.)	Area treated under the activity (ha)	Expenditure incurred (Rs.)	Actual no. of benefici-aries	No. of mandays			WDF collected (Rs.)
												SC	ST	F	
West Garo Hills	WGH IWMP-IX	Dabang Dodinpara	Repairing maintanance of CPR's			1.75		0.0875							

CHAPTER V

PROJECT PHASING & BUDGETING

CHAPTER V

PROJECT PHASING & BUDGETING

ACTION PLAN OF LOWE DABANG WATERSHED UNDER IWMP TERRITORIAL DIVISION: TURA

Name of District :- West Garo Hills — No. of Villages: 1 nos

Name of C&RD Block:- TIKRIKILLA — Project Area : 500 Ha

Sl. No	Activities	Ist Year(6%)		IInd Year(14%)		IIIrd Year(50%)		IV Year(25%)		V Year(5%)		Total(in lakhs)	
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	**MANAGEMENT COST:**												
A	**Administrative Cost:-10%**			**2%**		**5%**		**3%**				**10%**	
i	Honourarium of WDT Members @ Rs.8000/- month-1 no.				0.96		0.96		0.96				2.88
ii	Honourarium of Watershed Committee Chairman @500/ month				0.01		0.06		0.02				0.09
iii	Honourarium of WCM @ Rs. 200/Members/month for 9 nos.				0.036		0.216		0.072				0.324
iv	Honourarium of Charter Accountant				0.15		0.15		0.15				0.45
v	TA/DA/ of Field Asst. @ 5000/- month				0.05		0.60		0.20				0.85
vi	Hiring charges of office building @ 1000/ month				0.02		0.12		0.12				0.26
vii	Hiring charges of vehicle @ 5000/ month				0.10		0.60		0.20				0.990
viii	Office expenses, POL, Stationeries, Printing of SHG's books, pamphlets, tea, snacks ets, cost of camera.				0.174		1.044		0.528				1.746
	TOTAL OF A:			**2%**	**1.50**	**5%**	**3.75**	**3%**	**0.528**			**10%**	**7.50**
	PREPARATORY PHASE: 4%												
B	**Entry Point Activities:**	4%											
i	Construction of Spring Chamber/Ringwell @Rs60,000/- each	5 Nos.	3.00									5	3.00
	TOTAL OF B:		**3.00**										**3.00**

C	**Institution & Capacity Building : - 5%**	**1%**		**2%**		**1%**		**1%**				**5%**	
i	Awareness Campaign & Capacity building of farmer	1	0.20	1	0.20	1	0.20					3	0.60
ii	Exposure visits - Off Campus	1	0.35	1	0.30	1	0.35					3	1.00
iii	Capacity building of SHG's/UG's.	1	0.20	3	0.60	1	0.20	1	0.35			6	1.35
iv	Capacity building of WC Members.			1	0.20			1	0.20			2	1.00
v	Capacity building of WDT/WV			1	0.20			1	0.20			2	0.60
	Total of C:		**0.75**		**1.50**		**0.75**		**0.75**				**3.75**
D	**Detailed Project Report: 1%**		1%										
i	Cost of Resources Inventories works		0.25										0.25
ii	Cost of PRA Exercises		0.10										0.10
iii	Cost of Land use Survey works		0.25										0.25
iv	Cost of formulating		0.15										0.15
	Total of D:		**0.75**										**0.75**
E	**Monitoring & Evaluatio: 2%**												
i	Cost of Monitoring			0.2%	0.15	0.5%	0.375	0.3%	0.225			1%	0.75
ii	Cost of Evaluation			0.3%	0.225	0.5%	0.375	0.2%	0.15			1%	0.75
	Total of E:				**0.375**		**5.25**		**0.375**				**1.50**
	TOTAL OF I (A - E)		**4.50**		**3.375**		**5.25**		**3.375**				**16.50**
II	PROJECT COST WATERSHED WORKS PHASE: 50%												
A	**Arable Land Treatment:**												
i	Wet terrace@20,000/-Ha(10-20% slope)			6	1.20	6	1.20					12	2.40
ii	Rubber plantation pre-work@5,900/(40 ha)			15	0.885	35	2.07					50	2.955
	1st yr. planting @Rs.2,900/ha					15	0.435	35	1.015				1.45
iii	Arecanut plantation pre-works @Rs.5,900/30 ha			10	0.59	20	1.18					30	1.77
	1st yr. planting@ 2,900/ha					10	0.29	20	0.580				0.87
	TOTAL OF - A				**2.68**		**5.17**		**1.60**				**9.45**
B	**Non-Arable Land treatment:**												
	Improvement of degraded forest @3600/10 ha												
i	Preliminary Works@700/-Ha			10	0.07							10	0.07
ii	1st Year Planting @ 1900/- Ha				0.19								0.19
	2nd Year Planting @ 1000/-Ha			10	0.10								0.10
	Total of B:				**0.36**								**0.36**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
C	**Drainage Line Treatment:**												
i	C.C.Check-Cum-Irrigation dam @2,50,000/ each - 95 Ha					4	10.00					4	10.00
ii	Stone masonry protection wall @50,000/each - 85 ha			2	1.00	4	2.00	2	1.00			8	4.00
iii	Dug-out pond @50,000/-each -15 ha			3	1.50	3	1.50	1	0.50			7	3.50
iv	Water harvesting farm pond @2,50,000/- each -127 ha					3	7.50	1	2.50			4	10
v	Earthern irrigation channel @Rs. 50 /- Rm. -55 ha			180	0.090	160	0.08	60	0.03			400	0.20
	TOTAL-C				**2.59**		**21.08**		**4.03**				**27.7**
	TOTAL OF A+B+C			**7.5%**	**5.625**	**35%**	**26.25**	**7.5%**	**5.625**			**5%**	
D	**Livelihood Activities for landless person: 10%**												
ii	Kitchen garden @2,500/unit			30	0.75	50	1.25	60	1.50			140	3.50
iii	Dug-out pond @50,000/-each-15 ha					2	1.00	6	3.00			8	4.00
	Total of D:			**1%**	**0.75**	**3%**	**2.25**	**6%**	**4.50**			**10%**	**7.50**
E	**Production system and Micro Enterprises (SHG's) - 13%**												
i	Piggery unit @Rs.30,000 /- per unit					1	0.30	4	1.20			5	1.50
ii	Poultry unit @Rs.30,000 /- per unit					1	0.30	4	1.20			5	1.50
iii	Fishery-cum-piggery unit @25,000 /- each							6	1.50			6	1.50
iv	Group Rubber nursery @25000/- per plant			3000	0.75	12600	3.15	5400	1.35			21000	5.25
	Total of E:			**1%**	**0.75**	**5%**	**3.75**	**7%**	**5.25**			**13%**	**9.75**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
F	**Consolidation & Exit Phase:**												
i	Repairing maintanance of CPR's										1.75		1.75
ii	Improving the sustainability of various intervention										1.00		1.00
iii	Documentation of successful experience and preparation of complation report										1.00		1.00
	Total of F:										**3.75**		**3.75**
	Total of II (A+B+C+D+E+F)				7.125		32.25		15.375		3.75		58.50
	Grand Total (I+II)	**6%**	**4.50**	**14%**	**10.50**	**50%**	**37.50**	**25%**	**18.75**	**5%**	**3.75**	**100%**	**75.00**

Details of the types of areas covered under the IWMP Programm

1	2	3	4	5	6		7	8	9	10				11				
SL No	Name of State	Name of Districts	Names of Projects	Year of sanction	Project duration (dd/mm/yyyy)		Area of the projects	Project cost (Rs. In lakh)	Names of Micro watersheds & Code nos. (as per DoLR's unique codification)	Treated Area (ha) of the projects				Treated Area details (ha) (falling within the projects)				
					From	To				Cultivated rainfed area	Cultivated irrigated area	Uncultivated wasteland		Pvt. Agri. Land	Forest land	Comm unity land	Others (pl. specify)	Total area (ha)
												a) Temporary fallow	b) Permanent				Horti.	
1	Meghalaya	West Garo Hills	W.G.H IWMP-IX	2010	2010	31/3/2015	500	7.5	Lower Dabang	0	490	10	0	95	30	0	375	500

Fund provision for the IWMP projects from all sources:

1	2	3		4										5
District	Name of Projects	IWMP Fund		Funds from other sources in addition to IWMP funds										Total
				Convergence funds		PPP		Community		Institutional finance		Others (Pl. specify)		
		Central Share	State Share	Name of Scheme	Amount (Lakhs)	Name of private sector	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	
Meghalaya	W.G.H IWMP-IX	67.50	7.50	NREGS	15	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	90

Details of Project Fund Accounts of Distt. Agency and Watershed Committees:

1	2	3	4	5				6				
				Distt. Agency's Project Account details				Watershed Committee (WC) account details:				
Sl. No.	Names of States	Name of Districts	Names of Projects	Name of the Bank and Branch where project account has been opened	Account Number (to be obtained confiden-tially)	Account type (Savings/ Current/ Others)	Name & Designation of authorized persons who operate the account.	Name of Watershed Committee	Name of the Bank and Branch where project account has been opened	Account number (to be obtained confiden-tially	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Megha laya	W.G.H	W.G.H IWMP-IX	Lower Dabang Micro Watershed	31629504051	Saving		Lower Dabang Micro Watershed	S.B.I Lower Chandmary	31629504051	Saving	Chairman W.C Secretary W.C Project Leader/WDT

Public-Private Partnership in the IWMP projects: NIL

1	2	3	4			5		6	7	8	9
District	Name of project	Name of Private Sector Partner Agency	Type of agreement signed			Financial contribution		Partnership Interventions	Expected Outcomes	Actual Outcomes	Comments
			a)MoU	b)Contract	c) Any other (pl. specify)	IWMP	Private sector				
			NIL								

***** from Column no. 2, total no. of States implementing the programme, from Column no. 3, total no. of Districts; from Column no. 4, total no. of projects under PPP; from Column no. 5, total no. of private companies/ agencies, from column no. 7, total amounts may be mentioned at the end of the table for the entire country.

CHAPTER VI
CAPACITY BUILDING

CHAPTER VI
CAPACITY BUILDING

Capacity Building is a process to systematically upgrade the skill of individuals or groups for achieving a specific target. Capacity building in the project has been planned for all the stake holders involved i.e. State Level, District Level, Project Level and Village Level. The relevant details pertaining to Capacity Building has been shown below.

Table 6.1: List of approved Training Institutes for Capacity Building:

1	2	3	4	5	6	7	8	9				
S. No	State	Name of the Training Institute	Full Address with contact no., website & e-mail	Name & Designation of the Head of Institute	Type of Institute[#]	Area(s) of specialization[$]	Accre-ditation details	Performance				
								Refer-ence Year	No. of trainings assigned	No. of trainees to be trained	No. of trainings conducted	No. of trainees trained
1	Meghalaya	NIRD (NER)	Guwahati	Director	Central Govt.	Remote Sensing, Rural Dept.	NA	-	-	-	-	-
2		SIRD	Nongsder	Director	State Govt.	Capacity Building	NA	-	-	-	-	-
3		RRTC	Umran Meghalaya	Director	Don-Bosco	Agri-Horti, Animal Husbandry, Entrepreneurship	NA	-	-	-	-	-
4		ICAR/ KVIC	Umiam/Tura Meghalaya	Director	Central Govt.	Do	NA	-	-	-	-	-
5		MRDS	Shillong Meghalaya	Director	State Govt.	Animal Husbandry	NA	-	-	-	-	-
6		NEHU	Shillong/Tura Meghalaya	Director	Central Govt.	Agri-Horti, Fruit Processing	NA	-	-	-	-	-

- From Column no. 2, total no. of States implementing the programme, from Column no. 3, no. of training institutes, from column No. 9, total no. of category-wise trainings and trainees may be given at the end of the table for the entire country
- # Central govt. Dept./ State govt. Dept./ Autonomous Body/ Research Institutes/ Universities/ Others (pl. specify)

$ Capacity Building/ Agriculture/ Horticulture/ Animal Husbandry/ Pisciculture/ Remote Sensing/ Water conservation/ Ground water/ Forestry/ livelihoods/ entrepreneurship development/ others (pl. specify)

@ The training institutes must fulfill the conditions mentioned in the operations guidelines.

(i) Technical experts in fields required by IWMP
(ii) Past experiences
(iii) Annual Turnover
(iv) Receives funds either from the Central or State Government
(v) Publications
(vi) Not blacklisted by any Govt. organizations
(vii) Audited accounts
(viii) Organizational structure

Table 6.2: Capacity Building activities for the year 2010 – 11 as on 31/03/2010 (dd/mm/yyyy)*

1	2	3	4	5	6		7	
Project Stakeholders	**Total no. of persons**	**No. of persons trained so far**	**No. of persons to be trained during current financial year**	**No. of persons trained during current financial year**	**Sources of funding for training**		**Funds utilized (Lakhs)**	
					a) DoLR	**b) Any other (Pl. specify)**	**a) DoLR**	**b) Any other (Pl. specify)**
PIAs	10	NIL	10	NIL	3.75	NIL	0.75	NIL
WDTs	5	NIL	5	NIL				
Ugs	40	NIL	40	NIL				
SHGs	50	NIL	50	NIL				
WCs	11	NIL	11	NIL				
GPs	NIL	NIL	NIL	NIL				
Community	280	NIL	150	NIL				
Others Pl. specify)								
TOTAL	396	0	266	0	3.75	0	0.75	0

Table 6.3: Information, Education & Communication (IEC) activities for the year 10-11 as on 31/03/10 (dd/mm/yyy)*

	1	2	3	4	5
	Activity	**Executing agency**	**Estimated expenditure (Rs.)**	**Expenditure incurred (Rs.)**	**Outcome (may quantity, wherever possible)**
1.	Resources Inventories Works	S&WC (T) Division	0.40	-	-
2.	Land Use Survey Works	S&WC (T) Division	0.95	-	-
3.	Cost of formulating	S&WC (T) Division	0.20	-	-
		Total	1.55	-	-

CHAPTER VII

EXPECTED OUTCOME

CHAPTER VII
EXPECTED OUTCOME

Table 7.1 Employment related outcomes:

Sl No	Name of Village	1										2				
		Wage employment										Self employment				
		No. of mandays					No. of beneficiaries					No. of beneficiaries				
		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
1.	Dabang Dodinpara		29210		16140	45350		50		32	82		50		32	82
	Total		**29210**		**16140**	**45350**		**50**		**32**	**82**		**50**		**32**	**82**

Table 7.2 Migration Details:

1	2	3	4	5	6	7	8	9	10	
Names of the Districts	Names of Projects	Name of village	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. in lakh)	For reduced migration identify major activities of IWMP responsible	
									(a) Structures	(b) Livelihoods
				N	I	L				

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 5, total no. of villages; from column no. 6, total no. of persons migrating; from column no. 7, average no. of days for annual migration; from column no. 9, average distance of migration from the village and form column no. 11, average income from occupation during migration, for the entire country may be given at the end of the Table.

Table 7.3 Economic benefits accrued to women:

1		2		3		4
Wages		**Training**		**Livelihoods**		
Woman days	**Amount (Rs. in lakh)**	**No. of women participants**	**Amount (Rs. in lakh)**	**No. of women beneficiaries**	**Value of assistance provided (Rs. in lakh)**	**Total (Rs. in lakh)**
16140	16.14	82	0.40	20	3.00	19.54

* from Column no. 2, total no. of States implementing the programme, from Column no. 3 to 6, category-wise totals, may be mentioned at the end of the table for the entire country

Table 7.4 Details of rights conferred in the CPRs of the project areas:

1	2	3	4	5	6	7				8
Names of the Districts	**Names of the projects**	**Names of the villages**	**Particular of CPR**	**Nature of right**	**Period of right**	**Beneficiary details (no. of families)**				**User Charges (Rs.)**
						SC	**St**	**Others**	**Total**	
Meghalaya	W.G.H IWMP-IX	Dabang Gajingpara	Reserved forest	FW/MFP/ T	Unspecified		82		82	NIL
			Spring Chamber	Wd	Unspecified		50		50	NIL
			Check dam	Wi	Unspecified		62		62	NIL
			Irrigation Channel	Wi	Unspecified		40		40	NIL
		Total					234		234	

* From column no. 2, no. of States; from column no. 3, no. of Districts; from column no. 4, no. of projects; from column no. 5, no. of villages; from column nos. 9 & 10, particular-wise totals for the entire country may be given at the end of the table.
@ In column no. 6, the categories given in table no. M(SP) 10, column 5 may be filled as required.

In column no. 7, only the letter assigned to each type, as given below, needs to be typed.

F	for right to	fishing [culture, harvest and sale]
Fw	for right to	collect firewood for domestic purposes
G	for right to	grazing for cattle and
MFP	for right to	collect and sell minor forest produces
P	for right to	passage across the CPR
Rd	for right to	construct a road for access to individual property
S/M	for right to	collect and sell sand and minerals
T	for right to	collect timber for construction of house
Wd	for right to	collect/ use water for drinking
Wi	for right to	use water for irrigation
O	for any right other than indicated above (please specify)	

Table 7.5 Water related outcomes:

Table 7.5.1 Details of average ground water table depth in the project areas of the Country: State-wise * (in metres)

1	2	3	4	5	6	7	8
Names of Districts	**Names of Projects**	**Sources**	**Pre-Project level**	**Mid-term project level**	**Post-Project level**	**Increase/decrease (Col. 8 – Col. 6)**	**Remarks**
Meghalaya	W.G.H IWMP-IX	Open Well	NA	NA	NA	NA	NA
		Bore Well	NA	NA	NA	NA	NA
		Other (specific) Spring	NA	NA	NA	NA	NA

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 to 9, the average measurements, category-wise, for the entire country may be given at the end of the table. The data must be based on the average of the Ground Water Table collected by PIA with the help of concerned technical expert in the same sample of 10 % of selected wells and bore wells in the villages in the watershed project area during pre-project, mid-term and post-project periods.

Table 7.5.2 Status of Drinking water:

1	2	3			4			5
District	**Name of the project**	**Availability of drinking water (no. of monyhs in a year)**			**Quality of drinking water**			**Comments**
		Pre-project	**Post-project**	**Change in availability**	**Pre-project**	**Post-project**	**Change in quality**	
Meghalaya	WGH IWMP-IX	10 months	12 months	2 months	Unsafe	Potable	Better drinking water supply	

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, category-wise no. of projects, from column no. 5, average no. of months may be given at the end of the table for the entire country.

Table 7.5.3 Water Use efficiency:

1	2	3	4			
District	**Name of the project**	**Name of major crop**	**Water savings in cu.m.**			
			through water saving devices[$]	**through water conserving agronomic practices[#]**	**Any other (pl specify)**	**Total**
W.G.H	WGH IWMP-IX	Paddy	NA	NA	NA	
		Maize	NA	NA	NA	

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 6, practice-wise totals may be mentioned at the end of the table for the entire country.
[$] Sprinkler, Drip, PVC pipe, etc.
[#] Vermi-compost, organic manuring, Mulching, Check basin, Alternate furrow, Ridges & furrow & other scientific practices.

Table 7.6: Vegetation/ crop related outcomes:

Table 7.6.1 Details of Karif crop area and yield in the project areas:

1	2	3	4						5						6					
Names of the Districts	**Name of Projects**	**Name of crops**	**Pre-project**						**Mid-term**						**Post-project**					
			Area (ha)		**Average Yield (Qtl) per ha.**		**Total Production (Qtl)**		**Area (ha)**		**Average Yield per ha (Qtl)**		**Total Production (Qtl)**		**Area (ha)**		**Average Yield per ha (Qtl)**		**Total Production (Qtl)**	
			Irri	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**	**Irri**	**Rf.**
W.G.H	WGH IWMP-IX	Paddy		27.60		18		496.80	27.60	5	36	18	993.60	90	32.60	28	36	18	1173.60	504
		Maize		20		15		300		20	0	15	0	300	0	20	0	15	0	300
		Vegetable		6		25		150	6	8	35	25	210	200	8	5	35	25	280	125
		Total		**53.60**		**58**		**946.80**	**33.60**	**33**	**71**	**58**	**1203.60**	**590**	**40.60**	**53**	**71**	**58**	**1453.60**	**929**

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.

Irri. – Irrigated Rf – Rainfed

Table 7.6.2 Details of Rabi crop area and yield in the project areas:

1	2	3	4	5	6						7						8					
Sl No.	Names of States	Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
					Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
					Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
	Meghalaya	West Garo Hills	WGH IWMP-IX	Paddy	-	-	-	-	-	-	27.60	-	36	-	993.60	-	32.60	-	36	-	1173.60	-
				Vegetables	-	-	-	-	-	-	6	-	35	-	210.00	-	6	-	35	-	210.00	-
				Total	-	-	-	-	-	-	33.60	-	71	-	1203.60	-	38.60	-	71	-	1383.60	-

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.

Irri. – Irrigated Rf – Rainfed

Table 7.6.3 Details of Zaid crop area and yield in the project areas of the Country: State-wise:

1	2	3	4	5	6						7						8					
Sl No.	Names of States	Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
					Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
					Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
	Meghalaya	West Garo Hills	WGH IWMP-IX		nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	Nil	Nil
					nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	Nil	Nil
					nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	Nil	Nil
				Total	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	Nil	Nil

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.

Irri. – Irrigated Rf – Rainfed

Table 7.6.4 Increase/ Decrease in area under fodder:

1	2	3	4			5		
			Existing area under fodder (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under fodder	Area under fodder proposed to be covered through IWMP	Area under fodder actually covered through IWMP	Change in area under fodder
W.G.H	W.G.H IWMP-IX	5 yrs	NA	NA	NA	-	-	-

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.5 Increase/ Decrease in Forest/vegetation cover:

1	2	3	4			5		
			Existing area tree cover (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under forest/vegetative cover	Forest/vegetative cover area proposed to be covered under IWMP	Forest/vegetative cover area actually covered under IWMP	Change in forest/vegetative cover area
W.G.H	W.G.H IWMP-IX	5 yrs	Land use survey conducted by the Department	2010	30	10	-	40

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.6 Increase/ Decrease in area under horticulture:

1	2	3	4			5		
District	Name of project	Duration of Project	Existing area under horticulture (ha)			Achievement (ha)		
			Source/Name of report	Year of reference	Area already under horticulture	Area under horticulture proposed to be covered through IWMP	Area under horticulture actually covered through IWMP	Change in area under horticulture
W.G.H	W.G.H IWMP-IX	5 yrs	Land use survey conducted by the Department	2010	66.02	70	-	136.02

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.7 Increase/ Decrease in area under fuel-wood:

1	2	3	4			5		
District	Name of project	Duration of Project	Existing area under fodder (ha)			Achievement (ha)		
			Source/Name of report	Year of reference	Area already under fuel-wood	Area under fuel-wood proposed to be covered under IWMP	Area under fuel-wood actually covered under IWMP	Change in area under fuel-wood
W.G.H	W.G.H IWMP-IX	5 yrs	-	-	-	-	-	-

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.7 Livelihood related outcomes:

Table 7.7.1 Details of livestock in the project areas (for fluids please mention in litres, for solids please mention in kgs. and income in Rs.):

1	2	3	4			5			6			7
Names of the Districts	**Name of Projects**	**Type of Animal**	**Pre-project**			**Mid-term**			**Post-project**			**Remarks**
			No.	**Yield**	**Income**	**No.**	**Yield**	**Income**	**No.**	**Yield**	**Income**	
West Garo Hills	W.G.H IWMP-IX	Cattle	210		16.80	210		16.80	-	-	-	Use for ploughing & local consumption self production earning.
		Piggery	35		2.45	45		3.60	60		4.80	
		Poultry	1221		3.05	1321		3.96	1500		4.50	
		Goatery	107		1.60	107		1.60	-	-	-	
	Total for all projects		**1573**		**23.90**	**1683**		**25.96**	**1560**		**9.30**	

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 5 to 8, the total nos. of animals and the average yield and incomes, category-wise, for the entire country may be given at the end of the Table.

Table 7.7.2 Details of other livelihoods created for landless people:

1	2	3	4	5				6	7					8					
District	Project	Name of activity	Fund required for the activity (Rs.)	Sources of funding (Rs.)				Actual Expenditure incurred on activity (Rs.)	No. of beneficiaries trained					No. of beneficiaries taking up activity				
				Project Fund	Benefi-ciary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
West Garo Hills	WGH IWMP-IX	Kitchen garden	-	3.50	-	-	3.50	-	-	-	-	-	-	-	-	-	-	-
		Dug out Pond	-	4.00	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-
								-	-	-	-	-	-	-	-	-	-	-
		Total	**-**	**7.50**	**-**	**-**	**7.50**	-	-	-	-	-	-	-	-	-	-	-
								-	-	-	-	-	-	-	-	-	-	-

(Contd.)

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of activities; from column no. 6, total funds required for the activity, from column no. 7 to 12, category-wise totals, from column no. 13, category-wise totals, for the entire country may be given at the end of the Table.

Table 7.7.3 Details of other livelihoods created for landless people:

9		10	11				12
No. of persons employed indirectly in the activity		Annual increase in income due to activity (Rs.)	Impact of livelihoods programme				Any other information (pl. Specify)
			Migration (No. of beneficiaries)		Development of backward-forward linkages		
Total	Grand Total (8+9)		Pre-project	Post-project	Pre-project	Post-project	
-	-	-	-	-	-	-	-

Table 7.7.4 Details of other livelihoods created for farmers:

1	2	3	4	5				6	7				8			
District	Project	Name of activity	Fund required for the activity (Rs.) in lakhs	Sources of funding (Rs.) in Lakhs				Actual Expenditure incurred on activity (Rs.)	No. of farmers trained				No. of farmers taking up activity			
				Project Fund	Benefi-ciary	Others (pl. specify)	Total		SF	MF	LF	Total	SF	MF	LF	Total
West Garo Hills	WGH IWMP-IX	Wet terrace	2.40	2.40	NIL	NIL	2.40		10			10	10			10
		Dug-out pond	4.00	4.00	NIL	NIL	4.00		18			18	18			18
		Rubber Plantation	4.40	4.40	NIL	NIL	4.40		40			40	40			40
		Arecanut Plantation	2.64	2.64	NIL	NIL	2.64		30			30	30			30
		Total	**13.44**	**13.44**	**0**	**0**	**13.44**		**98**			**98**	**98**			**98**

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of activities; from column no. 6, total funds required for the activity, from column no. 7 to 12, category-wise totals, from column no. 13, category-wise totals, for the entire country may be given at the end of the Table.

Table 7.7.5 Details of other livelihoods created for farmers * (contd.)

9		10	11				12
No. of persons employed indirectly in the activity		**Annual increase in income due to activity (Rs.)**	**Impact of livelihoods programme**				**Any other information (pl. Specify)**
			Migration (No. of beneficiaries)		**Development of backward-forward linkages**		
Total	**Grand Total (8+9)**		**Pre-project**	**Post-project**	**Pre-project**	**Post-project**	
10	20	10,000-12,000	NIL	NIL	NIL	NIL	-
18	36	30,000-35,000	NIL	NIL	NIL	NIL	-
40	80	25,000-30,000	NIL	NIL	NIL	NIL	-
30	60	35,000-40,000	NIL	NIL	NIL	NIL	-

Table 7.8 Marketing related outcomes:

Backward-Forward linkages *

1	2	3	4	5	6
District	**Project**	**Type of Marketing Facility**	**Pre-project (no.)**	**During the project (no.)**	**Post-project (no.)**
WGH	**IWMP-IX**	**(A) Backward linkages**	NIL	NIL	NIL
		(i) Seed certification	NIL	NIL	NIL
		(ii) Seed supply system	NIL	NIL	NIL
		(iii) Fertilizer supply system	NIL	NIL	NIL
		(iv) Pesticide supply system	NIL	NIL	NIL
		(v) Credit institutions	NIL	1	1
		(vi) Water supply	NIL	1	1
		(vii) Extension services	NIL	NIL	NIL
		(viii) Nurseries	NIL	NIL	NIL
		(ix) Tools/machinery suppliers	NIL	NIL	NIL
		(x) Price Support system	NIL	NIL	NIL
		(xi) Labour	NIL	5	5
		(xii) Any other (please specify)	NIL	NIL	NIL
		(A) Forward linkages	NIL	NIL	NIL
		(i) Harvesting/threshing machinery	NIL	NIL	NIL
		(ii) Storage (including cold storage)	NIL	NIL	NIL
		(iii) Road network	1	1	1
		(iv) Transport facilities	NIL	NIL	NIL
		(v) Markets / Mandis	NIL	NIL	NIL
		(vi) Agro and other Industries	NIL	NIL	NIL
		(vii) Milk and other collection centres	NIL	NIL	NIL
		(viii) Labour	NIL	5	5
		(ix) Any other (please specify)	-	-	-

* from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 6, 7 & 8, category-wise totals may be given at the end of the table for the entire country.

Table 7.9 Abstract of outcomes:

1	2	3	4	5	6	7
Sl. No.	**State**	**Item**	**Unit**	**Pre-project Status**	**Post-project Status**	**Remarks**
	MEGHALAYA	Status of water table		Very Poor	Good	
		Ground water structures repaired/ rejuvenated		-	-	
		Quality of drinking water		Very Poor	Improved	
		Availability of drinking water		Very Poor	Sufficient	
		Increase in irrigation potential		Very Poor	4 nos	
		Change in cropping/ land use pattern		Very Poor	-	
		Area under agricultural crop		Very Poor	-	
		i Area under single crop		Very Poor	Improved	
		ii Area under double crop		NIL	NIL	
		iii Area under multiple crop		NIL	NIL	
		Net increase in crop production area		-		
		Increase in area under vegetation		-		
		Increase in area under horticulture		-	70 ha	
		Increase in area under fuel & fodder		-	-	
		Increase in milk production		-	-	
		No. of SHGs		3	5	
		Increase in no. of livelihoods		-	6	
		Increase in income		-	NA	
		Migration		-	-	
		No. of school going children		220	250	
		SHG Federations formed		-	-	
		Credit linkage with banks		-		
		Resource use agreements		-	-	
		WDF collection & management		-	1	
		Summary of lessons learnt				

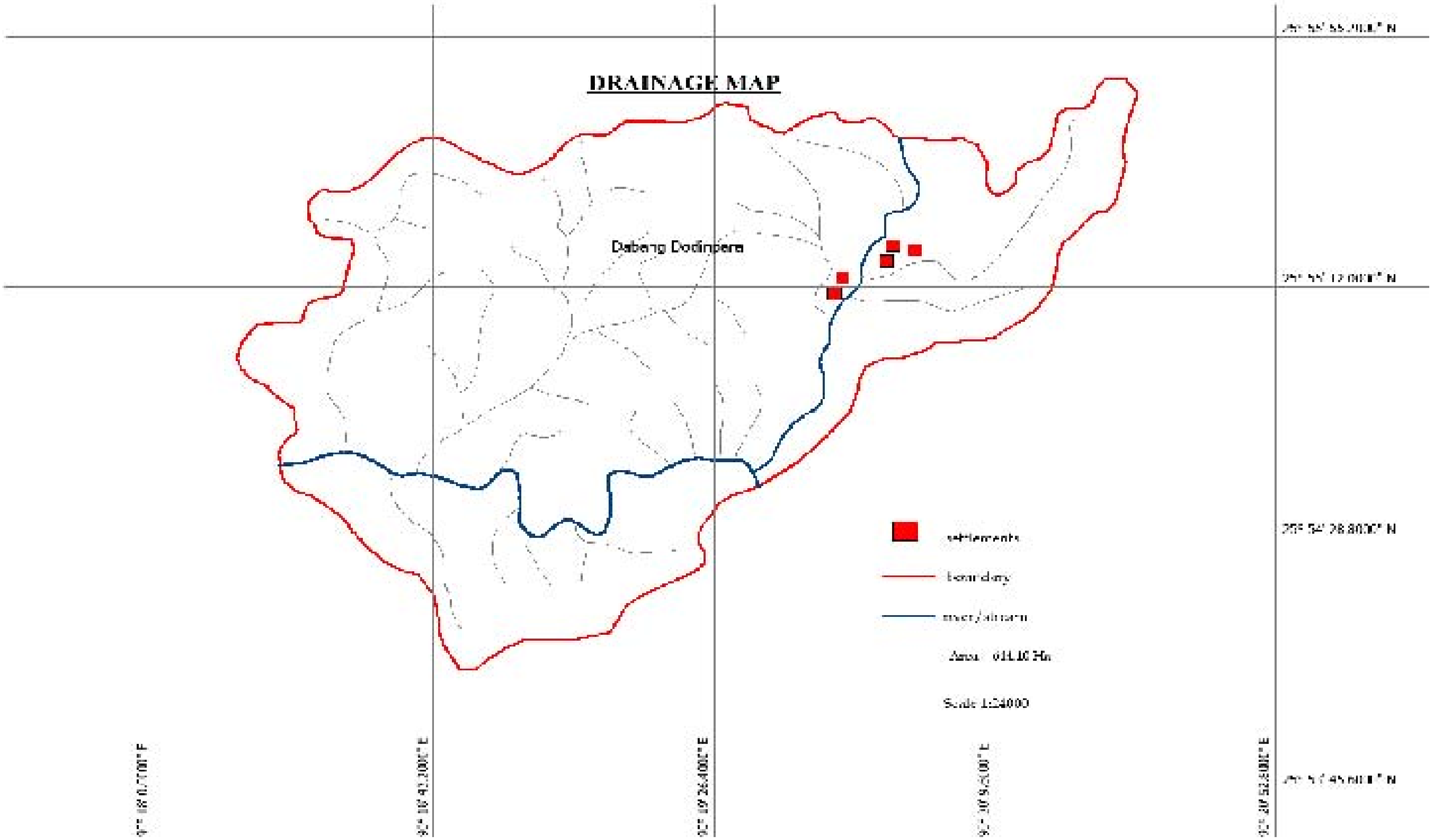
Table 7.10 Cost effectiveness of structures/ activities*

1	2	3	4	5	6	7	8	9
District	**Name of project**	**Name of WC**	**Name of structure/ activity**	**Estimated cost (Rs.)**	**Expected quantifiable benefits (Rs.)**	**Expenditure incurred (Rs.)**	**Actual quantifiable benefit (Rs.)**	**Benefit: Cost ratio#**
WGH	IWMP-IX	Lower Dabang	As per treatment plan	54.75	74.55	-	-	1:1.45

***** from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at the end of the table for the entire country.

B:C ratio more than 1 – cost effective less than 1 – Not cost effectiv

ANNEXTURE I
MAPS


DRAINAGE MAP
Dabang Dodinpara
settlements
boundary
river/stream
Scale 1:24000

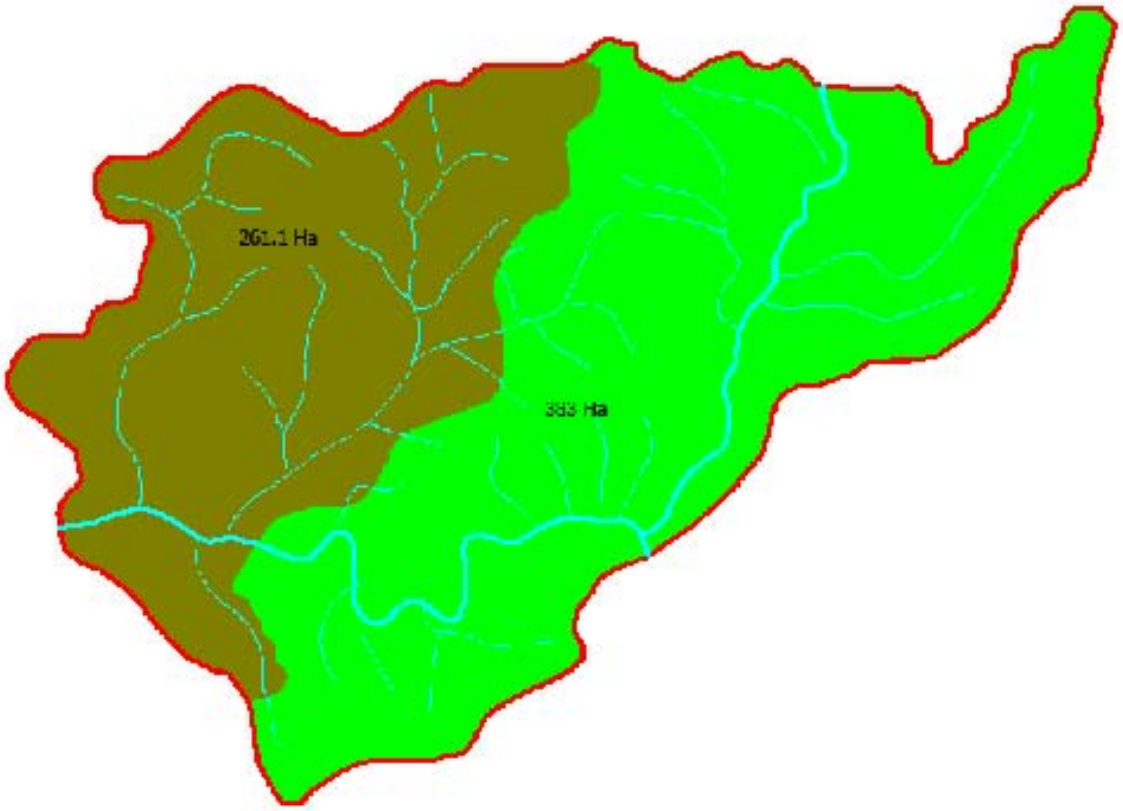
AGROCLIMATIC ZONE MAP

Hot, moisture (I UM)

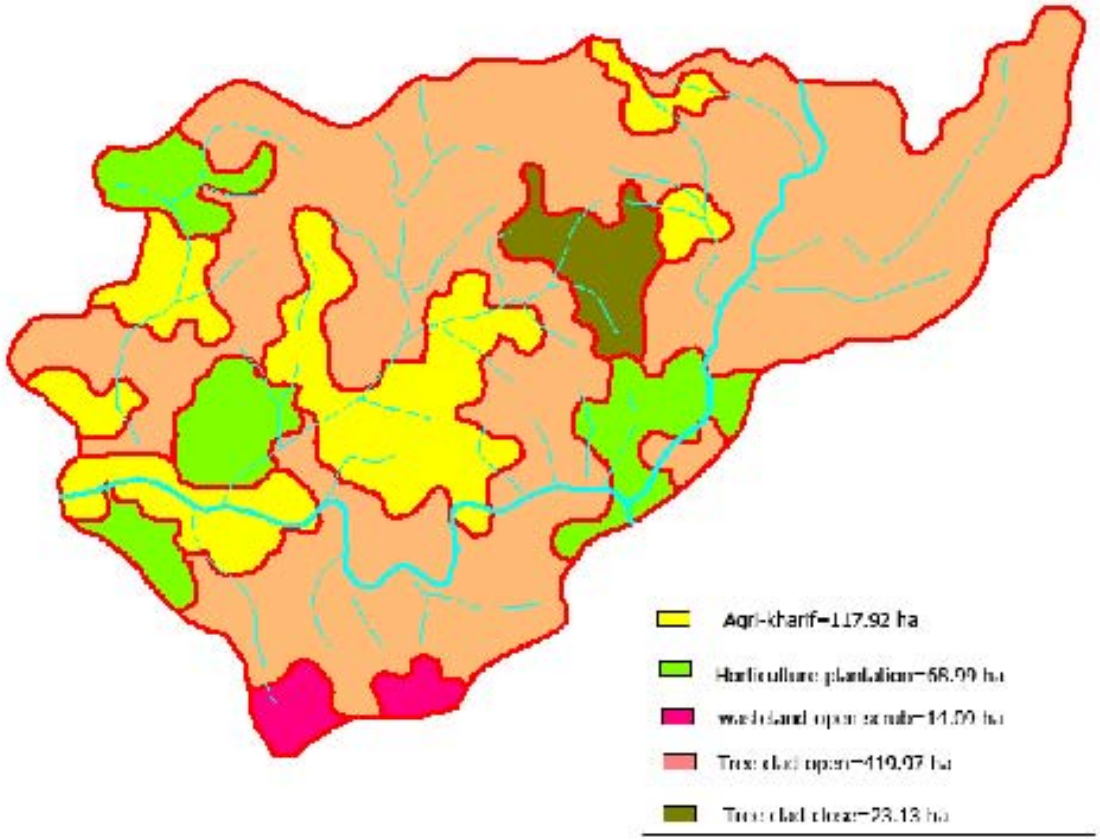
Drainage

Boundary

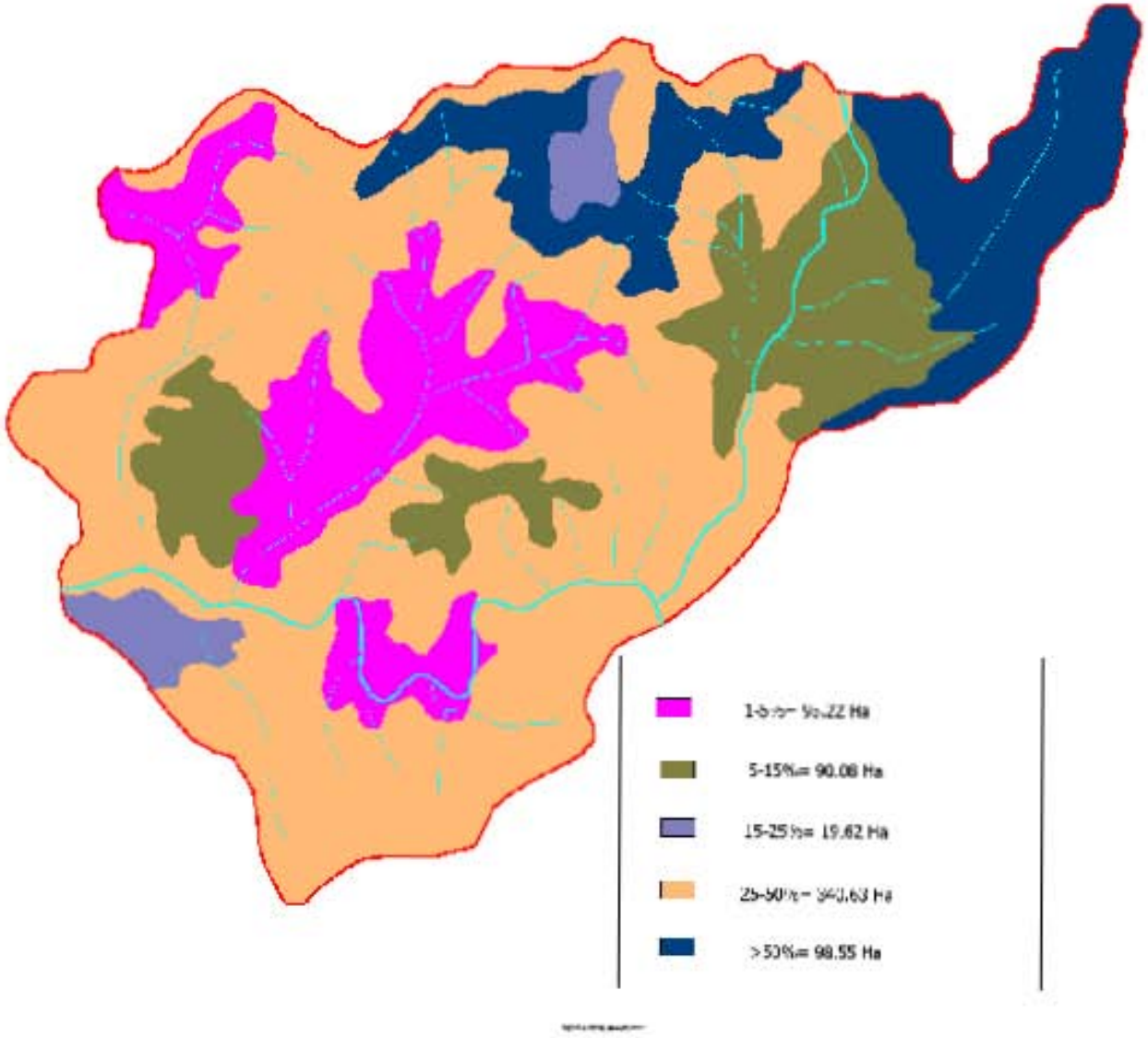
SOIL MAP


261.1 Ha
383 Ha
Deep, excessively drained fine loamy soils
Moderately deep, excessively drained, coarse loam soil

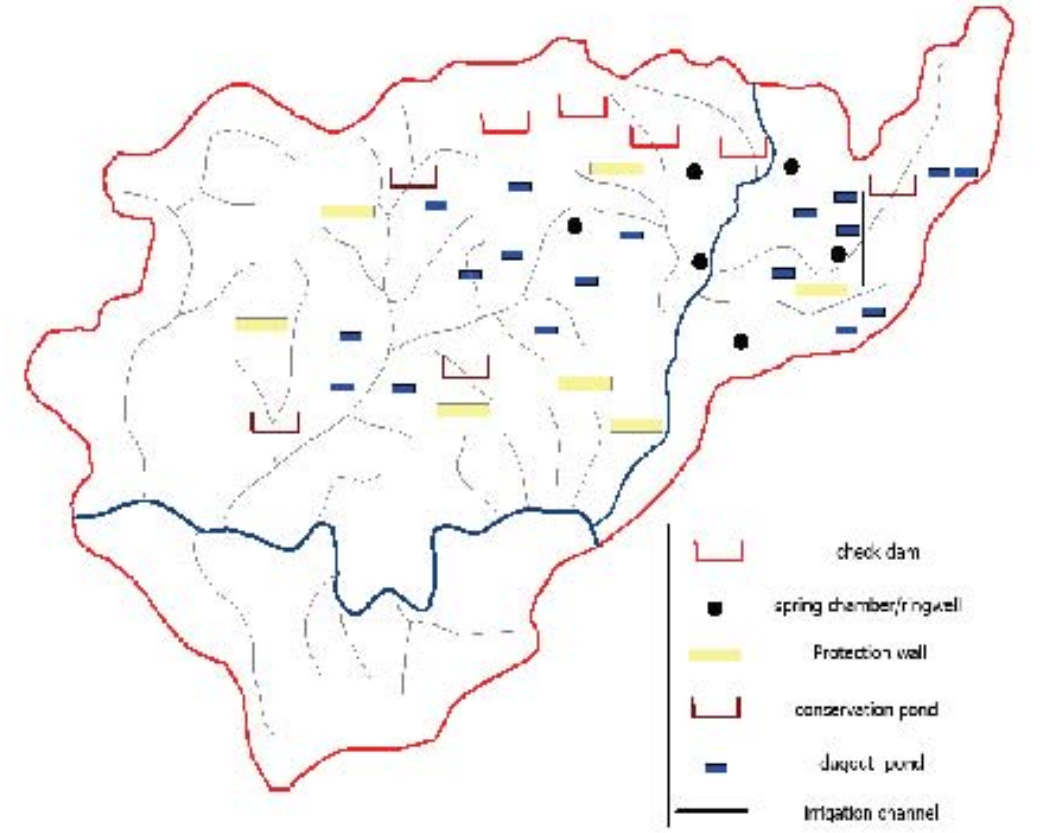
LAND USE LAND COVER MAP



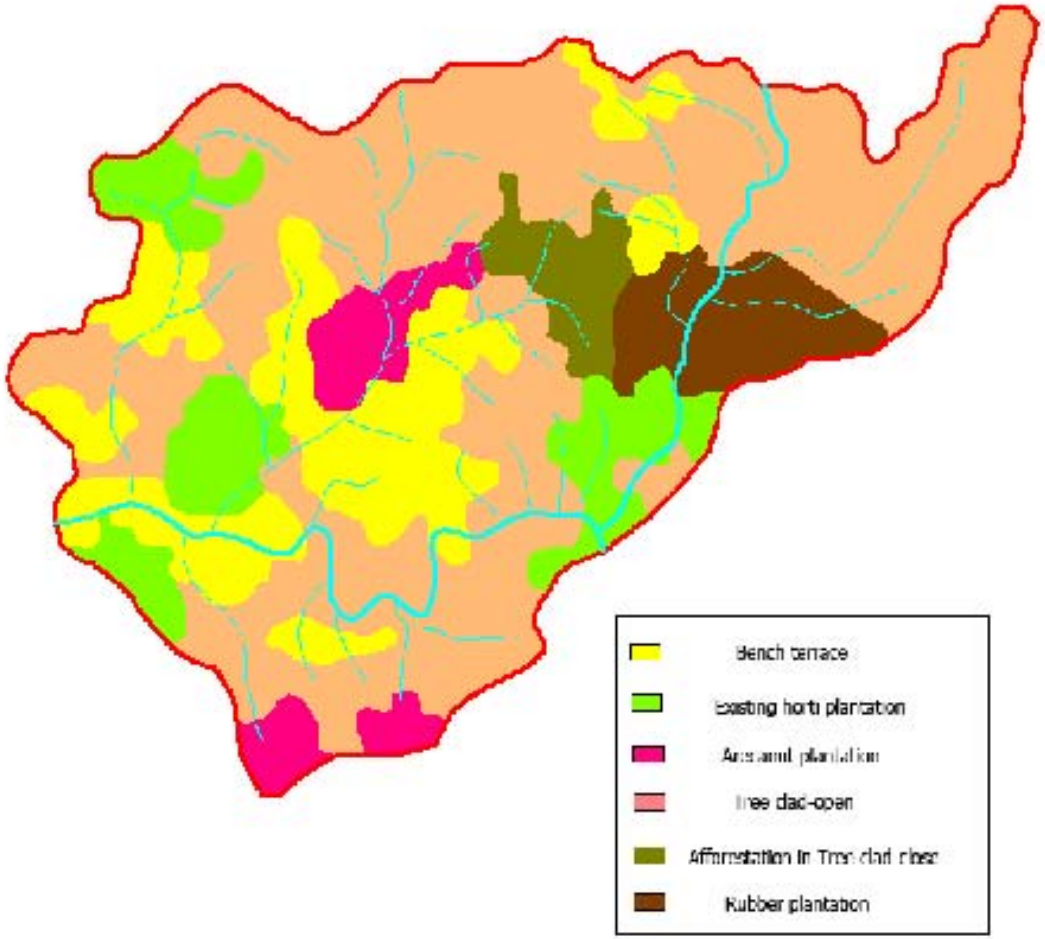
SLOPE MAP



PROPOSED ENGINEERING STRUCTURES



PROPOSED LAND USE MAP



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ANNEXTURE III
COST ESTIMATES

MODEL NORMS PER HACTARE FOR TERRACING (IWMP)

A. ***Technical Parameters .***

i) Average terrace width recommended (m)	*15.00*
ii) Vertical Interval (VI) = W x S/100 - S	*2.5*
iii) Terrace Length (m) = A/W + VI	*767.00*
iv) Earthwork = 12.50 x W x S m^3	*1200.00*
v) Shoulder Bund Length	*779.00*
vi) Shoulder Bund Length x-section (m^2)	*0.08*
vii) Earthwork for shoulder Bund (m^3)	*62.32*
viii)Area available for cultivation (Ha.)	*0.87*

B. ***Cost estimate .***

		Amount.
i) Jungle clearance including uprooting of stumps (L/s)		*2000.00*
ii) Cost of terracing @ Rs. 10/- m^3		*15000.00*
iii) Cost of shoulder Bund @ Rs. 7/- m^3		*850.00*
iv) Dressing, shaping and grading of terrace		*950.00*
v) Water Disposal structure (L/s)		*1200.00*
	G. Total	***20000.00***

(Rupees twenty thousand) only .

MODEL NORMS PER HA. FOR IMPROVEMENT OF DEGRADED FOREST (IWMP).

(Rate as per PWD SOR for R & B for 2008-09)

A. **Preliminary works .**

i) site clearance 3 mandays @ Rs. 100/- each	*Rs.*	*300.00*
ii) Pit digging (0.30 x 0.30 x 0.30) m 100 nos. @ Rs. 4/- each	*Rs.*	*400.00*
sub - total	***Rs.***	***700.00***

B. **I st year Planting .**

I) Cost of planting material 100 nos. @ Rs. 8/- each	*Rs.*	*800.00*
ii) Cost of planting 100 nos. @ Rs. 2/- each	*Rs.*	*200.00*
iii) Round weeding 4 times - 5 mandays @ Rs. 100/- each	*Rs.*	*500.00*
iv) Plant protection measures 4 mandays @ Rs. 100/- each	*Rs.*	*400.00*
sub-total	***Rs.***	***1900.00***

C. **II year Planting .**

i) Refilling 10%	*Rs.*	*100.00*
ii) Round weeding - 4 times- 5 mandays @ Rs. 100/- each	*Rs.*	*500.00*
iii) Plant protection measures - 4 mandays @ Rs. 100/- each	*Rs.*	*400.00*
Sub-total	***Rs.***	***1000.00***
Grand Total	***Rs.***	***3600.00***

(Rupees three thousand six hundred) only.

MODEL NORMS PER HACTARE FOR RUBBER CULTIVATION .

Spacing - (4.75 x 4.75) m

Plant density - 450 nos.

A. ***Preliminary works .***

i) Cost of seedling …. L/s…….	*Rs. 800.00*	
ii) Box terracing including pit digging (0.45 x 0.45 x 0.45) m ..L/s…		
……Rs.	*1350.00*	*500.00*
sub-total Rs.	***9000.00***	***1300.00***

B. ***I st Year Planting .***

i) Cost of Fertilisers (NPK 45:30:45) including transportation	*Rs. 2000.00*	
ii) Cost of 2 times application (June-July and September - October)		
14 mandays @ Rs. 100/- each	*Rs. 1400.00*	
iii) 1st year weeding	*Rs. 1200.00*	
Sub-total	***Rs. 4600.00***	

C. ***II nd year maintenance .***

i) 2nd year weeding	*Rs. 2700.00*	
Sub-total	***Rs. 2700.00***	

Grand Total Rs. 8600.00

(Rupeeseight thousand six hundred) only.

COST ESTIMATE PER UNIT FOR INTEGRATED FARMING SYSTEM (IWMP).

A.	*Piggery ;*		
	i) Construction of sty @ Rs. 20000/- each	*Rs.*	*20000.00*
	ii) Cost of Piglets - 10 nos. @ Rs. 20000/- each	*Rs.*	*20000.00*
	iii) Cost of feeds for 6 months (L/s)	*Rs.*	10000.00
B.	*Construction of Dug out Pond (25.00 x 25.00) m (as per estimate)*	*Rs.*	*60000.00*
C.	*Supply of fingerlings -1500 nos. @ Rs.3000/- per 1000 nos. (L/s)*	*Rs.*	*4500.00*
D.	*Kitchen Garden ;*		
	i) Site preparation including Bunding, shaping etc.	*Rs.*	*3500.00*
	ii) cost of F.Y.M. including cost of applicaton	*Rs.*	*4000.00*
	iii) Cost of equipmqnts and tools etc.	*Rs.*	*1500.00*
	iv) Cost of seeds including sowing etc.	*Rs.*	*1500.00*
	G. Total	***Rs.***	***125000.00***

(Rupees one lakh twenty five thousand) only.

Estimate for the construction of Ring Well.
(Based as per P.W.D. S.O.R. for roads, bridges and E&D works 2009-2010)

1/134	Excavation for structures. (1) Ordinary Soil. A.(ii) 3m. to 6 m. depth.										
		1	x	π/4	x	(1.20)	x	5.25	=	5.93	m^3
		1	x	π/4	x	(4.20)	x	0.30	=	4.15	m^3
	Less:	1	x	π/4	x	(1.20)	x	0.30	=	(-)0.34	m^3
									=	9.74	m^3
	(i) Upto 3m.depth.										
		@	Rs.	61	/-	m^3				Rs.	**594.14**

1 x 8.00 x 0.50 x 0.45 = 1.80 m^3

@ Rs. 47 /- m^3 Rs. **84.60**

[2]/69 Providing and paying reinforced c.c.pipe for ring well including fixing collar with cement mortar 1:2 etc.
(A) 1200mm
dia.
Length = 6.25 metres.

@ Rs. 5621 /- m Rs. **35131.25**

[3]/103 Providing and laying of dry rubble flooring complete.

1 x π x 4.20 x 1.50 x 0.25 = 4.95 m^3

1 x 8.00 x 0.20 x 0.10 = 0.16 m^3

5.11 m^3

@ Rs. 1065 /- m^3 Rs. **5442.15**

^{4}/141 Plain/Reinforced c.c. in open foundation complete.
(A) PCC G - M
-15

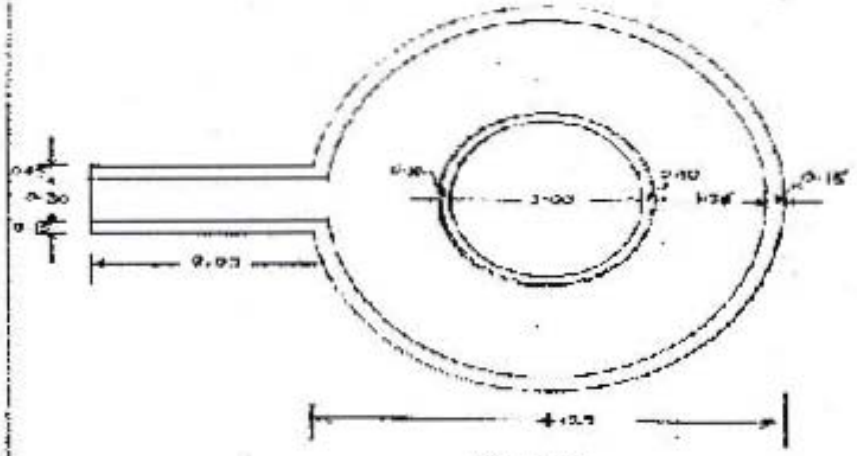
1	x	π	x	4.20	x	1.50 x 0.15	=	2.97	m^3
1	x	π	x	4.20	x	0.15 x 0.15	=	0.30	m^3
2	x	8.00	x	0.15	x	0.45	=	1.08	m^3
1	x	8.00	x	0.20	x	0.15	=	0.24	m^3
								4.59	m^3

	@	Rs.	4090	/-	m^3	Rs.	**18773.10**
GRAND TOTAL :						**Rs.**	**60025.24**
Say Rs.		***60,000/-***					

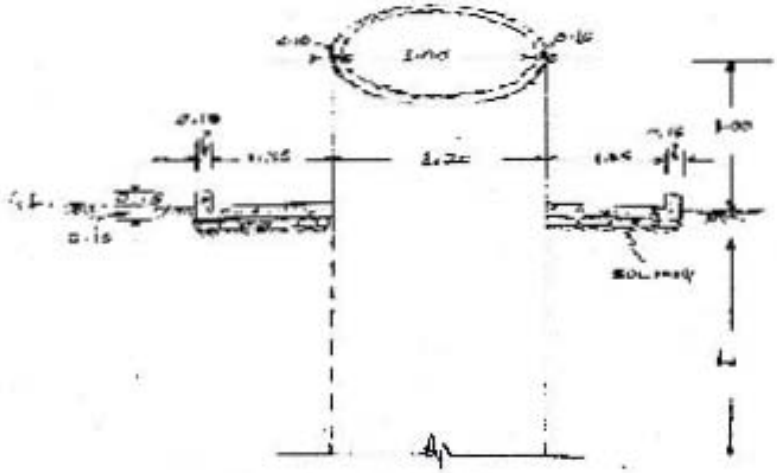
(Rupees Sixty Thousand) only.

DRAWING OF RING WELL

NOT TO SCALE



PLAN



CROSS SECTION

ESTIMATE FOR THE CONSTRUCTION OF C.C CHECK DAM.

(Based as per P.W.D., Schedule of rates for roads, bridges and E & D works for the year 2009-2010).

1/134. Excavation for structures.

(I)Ordinary soil.
A. Manual means.
(i)Upto 3.00m depth.

M/dam :	1 x 10.00 x 1.20 x 1.25	=	15.00m^3
G/wall :	2 x 4.60 x 0.50 x 0.80	=	3.68m^3
W/wall :	2 x 4.00 x 0.50 x 0.80	=	3.20m^3
T/wall :	1 x 6.60 x 0.60 x 1.00	=	3.96m^3
Apron :	1 x 4.60 x 6.00 x 0.45	=	12.42m^3

		=	38.26m^3

@ Rs. 47/- m^3 ……. Rs. 1798.22

2/137. Providing c.c. work in 1:3:6 foundation etc.

M/dam : 1 x 10.00 x 1.20 x 0.23 = 2.76m^3

@ Rs. 3571/- m^3 ……. Rs. 9855.96

3/141(a). Plain/ reinforcement c.c. in open foundation etc.

M/dam : 1 x 10.00 x 0.90 x 1.00 = 9.00m^3

	1 x 10.00 x $\frac{0.45 + 0.90}{2}$ x 1.80	=	12.15m^3
	2 x 2.00 x 0.45 x 0.75	=	1.35m^3
G/wall :	2 x 4.60 x 0.30 x 0.80	=	2.21m^3
	2 x 5.45 x 0.30 x 2.55	=	8.33m^3
Less :	2 x ½ x 3.20 x 0.30 x 1.35	= (-)	1.30m^3
W/wall :	2 x 4.00 x 0.30 x 3.35	=	8.04m^3
T/wall :	1 x 6.60 x 0.40 x 1.00	=	2.64m^3
Apron :	1 x 6.15 x 6.00 x 0.15	=	5.54m^3

		=	47.96m^3
@ Rs. 4090/- m^3	…….		Rs. 196156.40

4/140(b). Stone masonry work in cement mortar 1:3 etc. complete.

Apron :	1 x 4.60 x 6.00 x 0.30	=	8.28m^3	
	1 x ½ x 1.80 x 6.00 x 1.80	=	9.72m^3	
Less :	1 x ½ x 0.45 x 6.00 x 1.80	= (-)	2.43m^3	

		=	15.57m^3	
	@ Rs. 2714/- m^3	…….		Rs. 42256.98

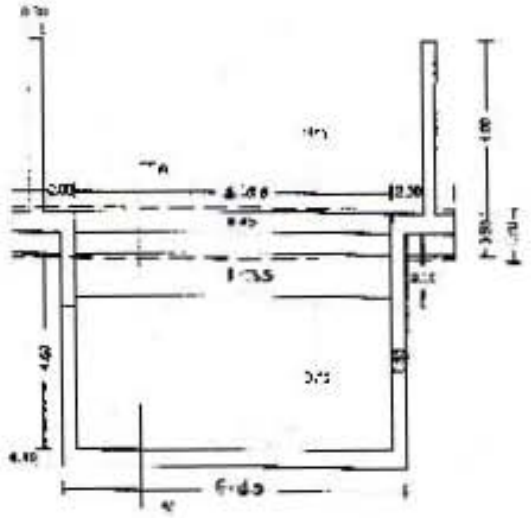
GRAND TOTAL = Rs. 250067.56

Say, Rs. 2,50,000.00

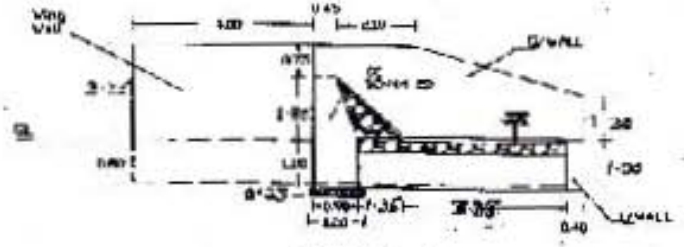
(Rupees Two lakh fifty thousand) only.

C. C. CHECK DAM

No to Scale



PLAN



C/S At A-A'

ESTIMATE FOR THE CONSTRUCTION OF C.C. CORE WALL WITH EARTH FILLED DAM (EARTHEN EMBANKMENT) FOR WATER HARVESTING STRUCTURES.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/134. Excavation for structures.
(I) Ordinary soil.
(A) Manual Means.
(i) Upto 3m depth.

Core wall :	1 x 18.00 x 1.20 x 1.25	= 27.00m^3	
L/Channel :	1 x 8.00 x 1.40 x 1.10	= 12.32m^3	

		= 39.32m^3	
	@ Rs. 47/- m^3	…….	Rs. 1848.04

2/137. P.C.C 1:3:6 in foundation…..etc.

Core wall :	1 x 18.00 x 1.20 x 0.11	= 2.38m^3	
	@ Rs. 3571/- m^3	…….	Rs. 8498.98

3/141. Plain/reinforced c.c in open foundation complete.
(A) P.C.C M-15.

Core wall :	$1 \times 18.00 \times \frac{0.40 + 1.00}{2} \times 3.50$	$= 44.10m^3$	
L/channel :	$2 \times 8.00 \times 0.20 \times 1.15$	$= 3.68m^3$	
	$1 \times 8.00 \times 1.00 \times 0.10$	$= 0.80m^3$	
		$= 48.58m^3$	
	@ Rs. 4090/- m^3	…….	Rs. 198692.20

4/28. Construction of embankment.

Dam :	$1 \times 18.00 \times \frac{2.50 + 8.50}{2} \times 3.00$	$= 297.00m^3$	
Less :	$1 \times 18.00 \times \frac{0.40 + 0.80}{2} \times 2.50$	$= (-) 27.00m^3$	
		$= 270.00m^3$	
	@ Rs. 71/- m^3	…….	Rs. 19170.00

5/100(I). Providing and laying stone/ boulders pitching on slope …etc.

(I) Stone /boulders.

Dam U/S :

	1 x 18.00 x 4.24 x 0.20	= 15.26m^3	
L/Channel :	1 x 8.00 x 1.00 x 0.20	= 1.60m^3	

		= 16.86m^3	
	@ Rs. 1086/- m^3	…….	Rs. 18309.96

6/37. Turfing with sods.

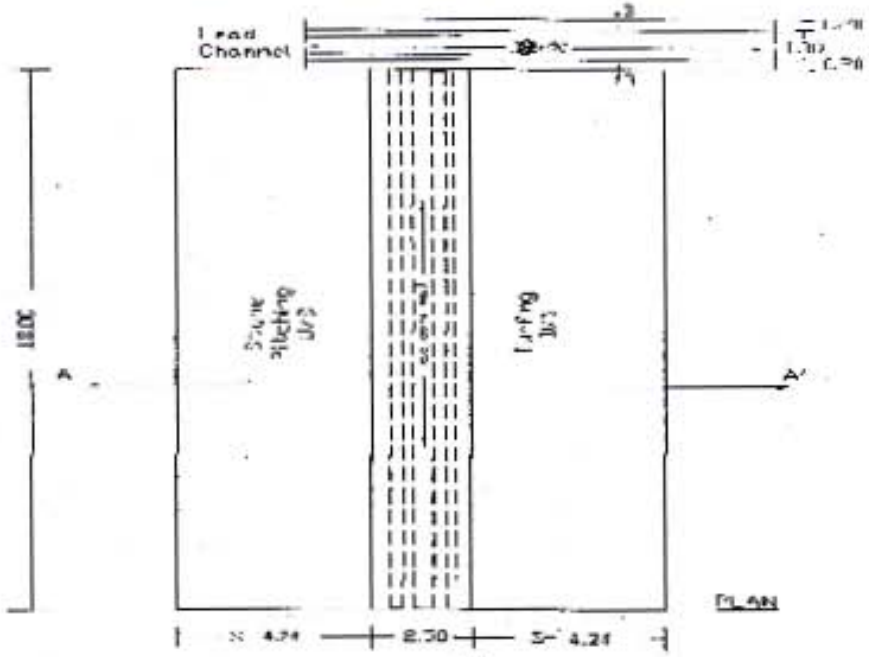
Dam D/S :	1 x 18.00 x 4.24	= 76.32m^2	
	@ Rs. 46/- m^2	……	Rs. 3510.72

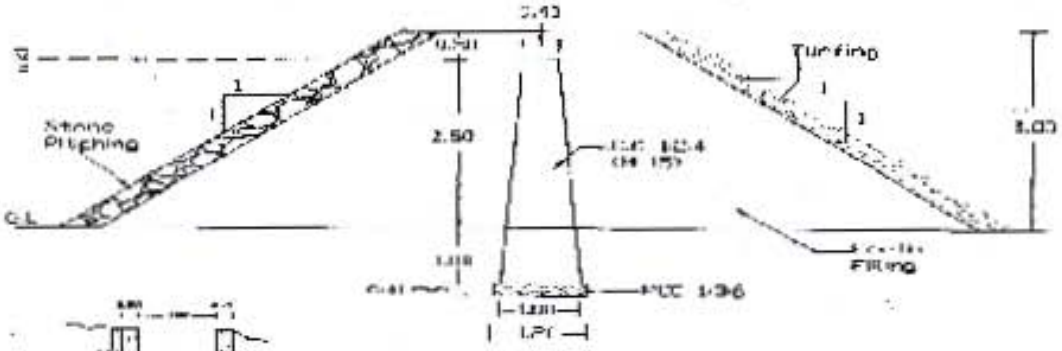
GRAND TOTAL = Rs. 250029.90

Say, Rs. 2,50,000.00

(Rupees Two lakh fifty thousand) only.

Cantilever Wall With Earthern Filling Bag
Embankment) For Water Harvesting Structure





C/S B - B'

C/S A - A'

N.B All Dimension are in Metres

Not to Scale

ESTIMATE FOR THE CONSTRUCTION OF DUG OUT POND.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/30(i). Excavation in cutting in soil by manual means.

Dug out Pond :

Vol : $\frac{D}{6}$ (26.00 x 24.00) + 4 (24.00 x 22.00) + (22.00 x 20.00)

$= \frac{2.00}{6}$ (624.00) + (2112.00) + (440.00)

$= \frac{2.00}{6}$ (3176.00)

$= 1058.67 m^3$

@ Rs. 47/- m^3 …… Rs. 49757.49

2/44(i). Surface drains in soil.
(A) Manual Means.

Length : 10.00 metres.

@ Rs. 25/- m^3 ……. Rs. 250.00

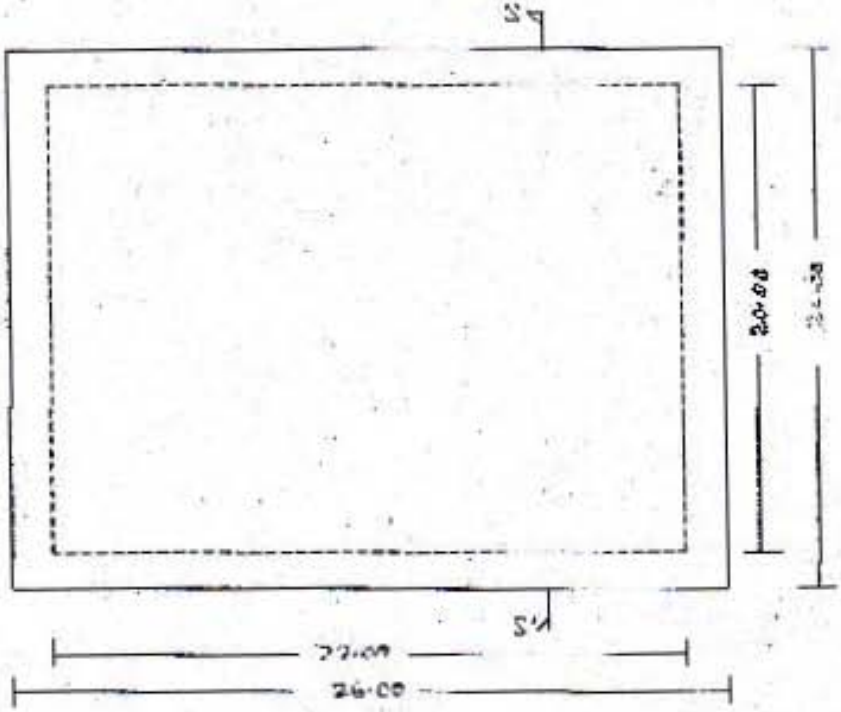
GRAND TOTAL = Rs. 50007.49

Say, Rs. 50,000.00

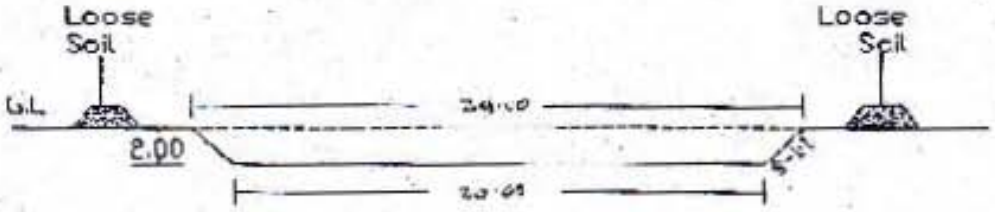
(Rupees Fifty thousand) only

DUG OUT POND

Not to Scale



PLAN



C/S AT S-S

ESTIMATE FOR THE CONSTRUCTION OF STONE MASONRY PROTECTION WALL.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/134. Excavation for structures.
(I) Ordinary soil.
(A) Manual Means.
(i) Upto 3m depth.

1 x 10.00 x 1.35 x ½ (1.10 + 0.60) = 11.48m^3

1 x 10.00 x ½ x 1.35 x 0.38 = 2.57m^3

= 14.05m^3

@ Rs. 47/- m^3 ……. Rs. 660.35

2/137. P.C.C 1:3:6 in foundation…..etc.

1 x 10.00 x 1.35 x 0.10 = 1.35m^3

@ Rs. 3571/- m^3 ……. Rs. 4820.85

3/140(b). Stone masonry works in cement mortar 1:3 etc.

$1 \times 10.00 \times \frac{0.60 + 1.10}{2} \times 1.75$ = 14.88m^3

1 x 10.00 x ½ x 1.10 x 0.28 = 1.54m^3

= 16.42m^3

@ Rs. 2714/- m^3 ……. Rs. 44563.88

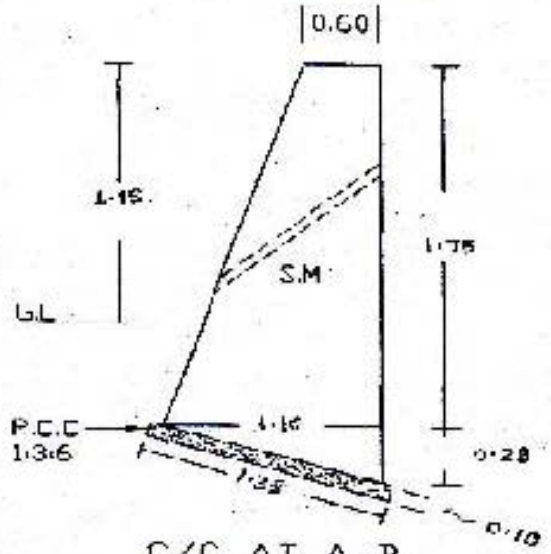
GRAND TOTAL = Rs. 50045.08

Say, Rs. 50,000.00

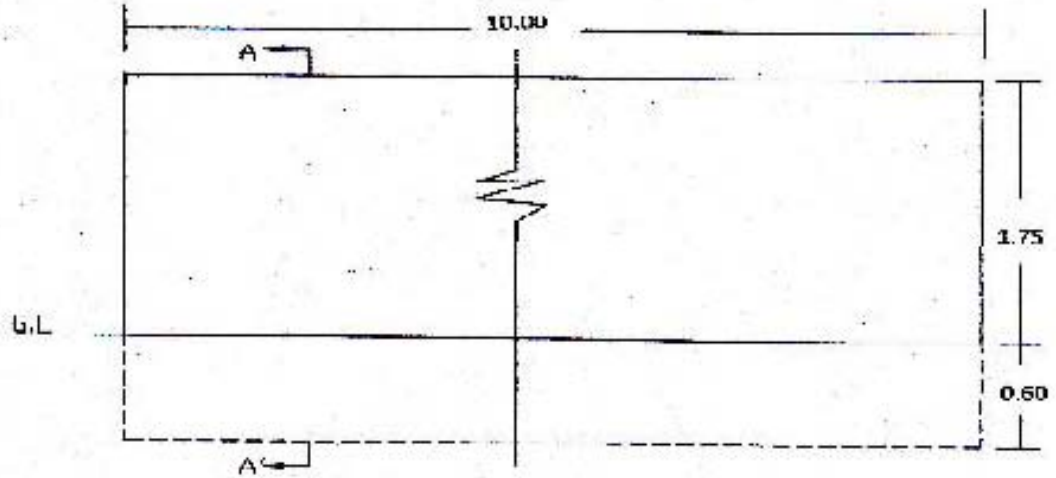
***(Rupees Fifty thousand) only*.**

STONE MASONRY PROTECTION WALL

Not to Scale



C/C AT A-B



ELEVATION

ANNEXTURE IV
MoA, SUB - COMMITTEE DET5AILS, ETC

SANJAY GOYAL, IAS
DISTICT MAGISTRATE
WEST GARO HILLS DISTRICT,
TURA, MEGHALAYA- 794001

Phone: 03651-223835(O), 223826(R)
Fax: 03651-221179, 222226
e-mail: sanjaygoyal_ias@yahoo.com

TO WHOM IT MAY CONCERN

This is to certify that centrally sponsored schemes like NREGS, BRGF, RKVY, NRHS and Total Sanitation Campaign etc can be convered with Watershed Projects/Programmee within West Garo Hills District.

Dated : Tura
The 14th April, 2011.

DEPUTY COMMISSIONER WEST GARO HILLS TURA

Sanjay

(Sanjay Goyal)
Deputy Commissioner,
West Garo Hills Dist, Tura.

Details of Convergence of IWMP with other Schemes:

Name of Villages: Lower Dabang-Dodinpara

	1	2	3	4	5			6	7
Sl. No.	District	Names of projects	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Name of activity/task/structure undertaken with converged funds (a) Structures (b)Livelihoods (C)Any other (pl specify)	Nos/Rmt/Ha	Amount(Rs)	Reference no. of activity/ task/ structure in DPR[@]	Level at which decision for convergence was taken[$]
1	WGH	WGH-IWMP-IX	NREGS (DRDA, West Garo Hils, Meghalaya)	4222400	a)Dugout pond	19 Nos	950000	Enclosure of Abstract of Perspective Plan for Convergence of NREGs with IWMP in DPR	District Level
					b)Stone masonry protection wall	12 Nos	600000		
					c) Water harvesting farm pond	4	1000000		
					d) C.C Check cum Irrigation dam	4 Nos	1000000		
					e) Earthen irrigation channel	1468 Rmt	73400		
					f) Wet terrace	5 Ha	75000		
					g)Rubber Plantation	40 Ha	292000		
					h) Arecanut Plantation	30 Ha	232000		
				Grand Total			**4222400**		

Grand Total: Fourty two lakhs twenty two thousand and four hundred only.

Enclosed: Abstract of Perspective Plan for Convergence of NREGS with IWMP

ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGA WITH IWMP AT DABANG-[illegible]PARA VILLAGE
UNDER LOWER DABANG MICRO WATERSHED IWMP-[illegible]

Name of the Village: Dabang-[illegible]
Total [illegible] area: [illegible] Ha

Total [illegible] (2011-2015) [illegible] Rs. [illegible]
[illegible] Rs. [illegible]
[illegible] only

S.No	Activity	Unit	2011-12 Phy	2011-12 Wage	2011-12 Material	2012-13 Phy	2012-13 Wage	2012-13 Material	2013-14 Phy	2013-14 Wage	2013-14 Material	2014-15 Phy	2014-15 Wage	2014-15 Material	Total Phy	Total Wage	Total Material	Mandays to be generated
1	[illegible]	[illegible]	2	7,50,000		2	[illegible]	-		-	-	[illegible]	5,00,000		[illegible]	[illegible]	-	[illegible]
2	[illegible]	[illegible]	[illegible]	1,40,000	[illegible]	[illegible]	[illegible]	[illegible]	-	-		5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]			-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-		4	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	2	[illegible]	[illegible]	-	-		4	[illegible]	[illegible]	[illegible]
5	[illegible]	Ha	[illegible]	[illegible]	-	[illegible]	[illegible]		272	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	-	[illegible]
6	[illegible] per Ha	[illegible]	[illegible]	[illegible]							-	-		-	[illegible]	[illegible]		[illegible]
7	[illegible]	[illegible]				[illegible]	[illegible]	-	[illegible]	[illegible]	-		-		[illegible]	[illegible]		[illegible]
	[illegible] per Ha	[illegible]	-	-	-	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	-	[illegible]	[illegible]		[illegible]
8	[illegible]			-	-	[illegible]	[illegible]		[illegible]	[illegible]					50	[illegible]		[illegible]
	[illegible] per Ha	[illegible]	-			[illegible]	[illegible]	-	[illegible]	[illegible]		[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
9																		
	[illegible]			[illegible]	[illegible]		[illegible]			[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

[illegible]
[illegible] Rs. [illegible]
[illegible] Rs. [illegible]
Total [illegible] Rs. [illegible]
[illegible]

[signature]
President
Village Dabang[illegible] V.E.C.
West Garo Hills / Megh.
[illegible]
[illegible]

[signature]
Secretary
Village Dabang[illegible] V.E.C.
West Garo Hills / [illegible]
[illegible]
[illegible]
[illegible]

AGREEMENT FOR CONVERGENCE OF SCHEME

The Village Employment Councils (VEC) and the Communities of Dabang Dodinpara Village, Tikrikilla Block, West Garo Hills, Meghalaya have no objection to the Convergence of NREGS with Integrated Management Project (IWMP) at Dabang Dodinpara village under Lower Dabang Micro-Watershed, WGH-IWMP-IX being implemented by Tura Soil & Water Conservation (T) Division.

We also agreed to allocate and commit Funds for wage as well as material component under NREGS in our Annual Work Plan for various Soil &Water Conservation Works which shall be taken up during the Project Period (2010-11 to 2013-14). The wage and material component under NREGS shall be utilised for following works:

1. Dugout Pond
2. Wet Terrace
3. C.C. Irrigation Dam
4. Areca nut Plantation
5. Stone Masonry Protection Wall
6. Earthen Irrigation Channel
7. Water Harvesting Farm Pond
8. Rubber Plantation

President
Village Dabanggre V.E.C.
West Garo Hills (Megh)

President.
Village Employment Council
Dabang Dodinpara
Tikrikilla Block, WGH

Secretary
Village Dabanggre V.E.C.
West Garo Hills (Megh)

Secretary
Village Employment Council
Dabang Dodinpara
Tikrikilla Block, WGH

NO OBJECTION CERTIFICATE OF THE
A·KING NOKMA LOWER DABANG
MICRO WATERSHED DEVELOPMENT PROJECT TO BE TAKEN UP
UNDER IWMP-IX
PROJECT BY TURA SOIL & WATER CONSERVATION (T) DIVISION

The A·king Nokma of Dabang Dodinpara village under Lower Dabang Micro-watershed project, WGH-IWMP-IX has No Objection to the developmental activities to be undertaken in my A·king land by Soil & Water Conservation Department.

The villagers of Dabang Dodinpara A·king Land are ready to accept the Development Scheme after clear understanding of the objectives and the activities proposed under the project to be implemented in our Watershed area.

There will be No Objection in future from the villagers of the watershed area as they have understood the objectives of the proposed scheme of the Soil & Water Conservation Department.

Name & Signature of A·king Nokma

Pillen Marak
NOKMA
DABANGGRI
West Garo Hills

Countersigned by

Divisional Officer,
Tura Soil & Water Conservation (T) Division
West Garo Hills

Divisional Officer,
Tura Soil & Water Conservation
(T) Division, West Garo Hills