

GOVERNMENT OF MEGHALAYA



**DEPARTMENT OF SOIL & WATER CONSERVATION
DETAIL PROJECT REPORT
OF
DARU MICRO WATERSHED
UNDER
INTEGRATED WATERSHED MANAGEMENT PROGRAMME
WGH IWMP -VI
2010-2011**



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

SUMMARY

| | | |
|-----------------------------|---|--|
| Name of the Sate | : | Meghalaya |
| Name of the District | : | West Garo Hills |
| Name of the C&RD Block | : | ZIKZAK |
| Name of the Villages | : | i) DARUGRE ii) BANGDAPARA |
| Name of the Project | : | IWMP-VI |
| Total Geographical Area | : | 719.1 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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CHAPTER I

INTRODUCTION AND BACKGROUND

CHAPTER I

INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Daru watershed is located in Ziikzak C&RD Block, West Garo Hills District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Sotol River and its tributaries flowing in a south to north direction. The total area is 719.1 Ha. With 500 to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 15 km from Ampati the Civil Sub-Divisional Head Quater and about 63 km from Tura the District Headquarter . A total of two villages are covered under the project. These are –

- (a) Darugre
- (b) Bangdapara

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 719.1 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 Daru 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 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:-

- (i) NREGS

CHAPTER II

BASIC INFORMATION OF THE PROJECT AREA

CHAPTER II

BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The Project area is located at West Garo Hills. It falls within the area of Zikzak, the C&RD Headquarter under West Garo Hills District. It is situated at a distance of about 15 Km from Ampati the Civil Sub-Divisional Head Quarter and about 63 km from Tura the District Headquarter. The geographical location is between 89°59'52.80'' to 90°01'55.20''E Longitude and 25°23'52.80'' to 25°26'56.40''N Latitude. There are 2 villages within the Watershed which are as follows –

- i) Darugre
- ii) Bangdapara

2.2 Physiography:

The physiography of the micro-watershed is highly undulating. The altitude ranges from a minimum of 45 m to a high of 150 m above mean sea level. In the lower reaches (valley lands) the slope ranges from 1-5 % however, in the middle and upper reaches it is greater than 15 %, and can reach up to 50 %.

Table 2.1: Physiographic details

| Elevation (metres) | Slope Range (%) | Order of watershed Sub/Micro-watershed | Major streams | Topography |
|-------------------------------|------------------------|---|---|-------------------|
| 45-150 | 1-50 | 2 nd Order micro watershed | Sotol, Wage songitcham, Mande, Mibit, Bondolkona, Rongbilbang , Daru. | Medium sloping |

2.3 Drainage: The major stream draining the micro-watershed is Sotol which is 2nd order stream flowing in a north-west direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Sotol.

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 | W.G.H | W.G.H-IWMP-VI | Water erosion: | | | | |
| | | | | a | Sheet | | | |
| | | | | b | Rill | 500 | NA | NA |
| | | | | c | Gully | | | |
| | | | | Sub total | | 500 | 0 | 0 |
| | | | | Wind erosion | | Nil | Nil | Nil |

2.5 Climate:

The area in the foothills or low lying areas and mid-slopes are hot in summer and remain warm throughout the winter. The area on the higher reaches is warm during summer and cold during winter. The average annual rainfall is alt. 3050mm.

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 | Central Hyper-thermic Plateau 150-300 m | 500 | W.G.H | W.G.H-IWMP-VI. | (a) Fine loamy Soils | 384.10 | 3050 | Paddy | 135 |
| | | | | | | | | | Maize | 15 |
| | | | | | | | | | Arecanut | 80 |
| | | | | | | | | | Banana | 10 |
| | | | | | | (b) Clay fine Soils | 335 | | Ginger | 12 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | Total | | 252 |

2.6 Agriculture: Agriculture is the primary occupation of the people of the area. The people mostly practice jhum. The jhum plots vary from 45-50 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 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.) |
|----------|-----------|-----------------------------|-------------------------|
| Paddy | 135 | 15 | 2025 |
| Maize | 15 | 20 | 300 |
| Arecanut | 80 | 8 | 640 |
| Ginger | 12 | 35 | 420 |

2.7 Natural Vegetation:

The tree species common to the watershed area includes Albizzia lebbek, Schima Wallichii, Emblica Officianatis, Romtan cuba and Bamboo sp . However, due to jhum cultivation the forest cover of the area has reduced considerably.

2.8 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 is 158 with a total population of 306, of which 156 are male and 150 are female. The detail of the household in each of the villages in the watershed project is as follows:

1. Darugre = 102 nos.
2. Bangdapara = 56 nos.

Total = 158 nos.

Infrastructure facilities :

- 2.1.1 *Roads:* All the villages within the Project Area are not connected by road. The Project area depends entirely on the kutchra road .
- 2.1.2 *School:* there are only 1 (one) L.P Schools within the Project Area run by the Government.
- 2.1.3 *Electricity :* Connections have been provided but some villages are yet to have electricity.
- 2.1.4 *Health :* One Community Health Centre at Salmanpara in under construction and the local population have to either depends on facilities available at Ampati .
- 2.1.5 *Water Supply :* Drinking water supply have been provided by the PHE Dept . However, during lean season the entire population have to depend on springs available in the area as the supply is not sufficient to meet the daily requirement.
- 2.1.6 *Market :* There is a weekly market held once in a week at Salmanpara However, the main market where the people sell their produce is at Bandalkona and also at Ampati.

Table 2.5: Infrastructure Status.

| 1 | 2 | 3 | | 4 | | | |
|------------------|-----------------|-------------|---|--------|-----|------|------|
| Name of District | Name of Project | Parameters: | | Status | | | |
| WEST GARO HILLS | IWMP-VI | (i) | No. of villages connected to the main road by an all-weather road. | Nil | | | |
| | | (ii) | No. of village provided with electricity | 2 No. | | | |
| | | (iii) | No. of households without access to drinking water | | | | |
| | | (iv) | No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI) | (P) | (S) | (HS) | (VI) |
| | | | | 2 No | | | |
| | | (v) | No. of village with access to Primary Health Centre | Nil | | | |
| | | (vi) | No. of village with access Veterinary Dispensary | Nil | | | |
| | | (vii) | No. of village with access Post Office | Nil | | | |
| | | (viii) | No. of village with access Banks | Nil | | | |
| | | (ix) | No. of village with access Markets/ mandis | | | | |
| | | (x) | No. of village with access 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 No. | | | |
| | | (xiv) | Any other facilities with no. of villages (please specify) | Nil | | | |

2.9 Livestock

There are only 3 kinds of livestock farming being farmed in the area viz. Piggery, Poultry and goatry etc.

Table 2.6: Existing livestock population

| Type of Animal | Population |
|----------------|------------|
| Piggery | 102 |
| Poultry | 601 |
| Cattle | 143 |
| Goatry | 107 |

2.7 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 Hills 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 |
| WEST GARO HILLS | IWMP-VI | (i) Large | - | - | - | - | - |
| | | (ii) Small | 158 | - | - | 318.26 | 318.26 |
| | | (iii) Marginal | - | - | - | - | - |
| | | (iv) Landless | - | - | - | - | - |
| | | Sub - Total | 158 | | | 318.26 | 318.26 |

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 | IWMP-VI | (i) Wasteland/ degraded land | - | - | - | 33.74 | - | - | - | 350 |
| | | (ii) Pastures | - | - | - | - | - | - | - | - |
| | | (iii) Private Agriculture land | - | - | - | - | 80 | - | - | - |
| | | (iv) Village woodlot | - | - | - | - | - | - | - | - |
| | | (v) Forest | - | - | - | 148 | - | - | - | 30 |
| | | (vi) Village Ponds/ Tanks | - | - | - | - | - | - | - | - |
| | | (vii) Community Buildings | - | - | - | - | - | - | - | - |
| | | (viii) Weekly Markets | - | - | - | Bandalkona | - | - | - | - |
| | | (ix) Permanent markets | - | - | - | Ampati | - | - | - | - |
| | | (x) Permanent cultivation | 133.11 | - | - | 43.22 | - | - | - | - |
| | | (xi) Temples/ Places of worship | - | - | - | Church- 2 Nos. | - | - | - | - |
| | | (xii) Jhum cultivation | - | - | - | 17.56 | - | - | - | - |
| | | (xiii) Any other(pls specify) Horticulture plantation | 115 | - | - | 9.37 | - | - | - | 40 |
| | | Total | 248.11 | | | 470.99 Ha | 80 | | | 420 |

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 | = | 176.33 | Ha |
| b) Tree clad Area-open | = | 367.10 | Ha |
| c) Wastelands-open scrub | = | 33.74 | Ha |
| d) Horticulture plantation | = | 124.37 | Ha |
| e) Current jhum land | = | 17.56 | Ha |
| Total | = | 719.1 | 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 which has further degraded the capability of the land. Moreover, unscientific method of cultivation has not only reduced the Jhum cycle and 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, arecanut 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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PROJECT PLANNING & INSTITUTION BUILDING

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 | |
| W.G.H | W.G.H-IWMP-VI | (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 |

3.3 Institution Building

i) Watershed Committee (WC)

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

Table 3.2: Details of Watershed Committees (WC):

[illegible]

- | | | | |
|----|--|----|--|
| 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:

[illegible]

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

[illegible]

CHAPTER IV
PROJECT ACTIVITIES

CHAPTER IV 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-VI | 75 Lakhs | Construction of Spring Chamber | 3.0 | - | - | NA | NA |

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-VI | 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)Pamphlets b)Banners c)Posters | a)Participatory Rural Appraisals b)Socio Economic Survey | a)GPS survey b)Engineering 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 | | | | | | | | | | | |
|---------------------------------------|---------------------------|-----------------------------|-----------------------|-----------------------|--------------|-------------------------------|-----------------------------|--|-----------------------------------|-----------------------------|-------------------------------------|--------------------------------|----------------------------------|--------------------------------------|-------------------------------------|----------------|----------------------------------|-------------------------------------|--------------------|
| S l. N o | Nam e of State s | Name of Distric ts | Name of Projects | Type of structures | Pre Project | | | Proposed Project | | | | | | | | | | | |
| | | | | | No | Area irriga ted (ha) | Stora ge capac ity | Augmentation/ repair of existing structures | | | | Construction of new structures | | | | Total target | | | |
| | | | | | | | | No | Area to be treat ed (ha) | Storag e capaci ty | Estimat ed cost (in lakhs) | No | Area to be treated (ha) | Storage capacity (per unit) | Estimate d cost (in lakhs) | No | Area to be treated (ha) | Storag e capacit y (m³) | Estimat ed cost |
| 1 | Meg halaya | W.G. H | W.G.H- IWMP- VI | Dug out Pond | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| C.C Check cum irrigation dam | | | | - | - | - | - | - | - | - | 5 | 90 | 675 m³ | 12.50 | 4 | 90 | 675 m³ | 10.00 | |
| Water harvesting farm pond | | | | - | - | - | - | - | - | - | 4 | 135 | 1012 m³ | 10.00 | 4 | 135 | 1012 m³ | 10.00 | |
| Irrigation Channel | | | | - | - | - | - | - | - | - | 340 rmt | 70 | - | 0.17 | 340 rmt | 70 | - | 0.70 | |
| | | | | - | - | - | - | - | - | - | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | Total | | | | | | | | | | 335 | 2512 m³ | 22.67 | | 335 |

| 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 | | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | | | | | | | | | | | | |

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-VI | 1 | CC.C.Check Dam cum Irrigation | 5 | 85 | 1 | 12.50 | 0.625 |
| | | 2 | Stone masonry .Protection Wall | 6 | 75 | 2 | 3.00 | 0.15 |
| | | 3 | Earthen IrrigationChannel | 340 rmt | 65 | 2 | 0.17 | 0.085 |
| | | Total | | | 205 | 5 | 13.5275 | 0.860 |

4.2.4 Activities executed by User Groups in the Project Areas:

[illegible]

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 |
| W.G.H | W.G.H-IWMP-VI | Piggery/ Poultry | 4 | 1.50 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | Total | | 4 | 1.50 |

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

[illegible]

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- VI | i)Improvement of degraded forest(10 Ha) | 1.08 | i)check dam | 12.50 | | | i)Wet Terrace(15 Ha) | 2.00 | | | i)Rubber plantation(40 Ha) | 1.72 | | | Pisciculture | 1.70 | | | i)Kitchen Gardening(160Unit | 0.25 | |
| | | | | ii)protection wall | 3.00 | | | | | | | ii)Arecanut plantation (25Ha) | 1.72 | | | | | | | ii)tailoring | 2.24 | |
| | | | | iii)dugout pond | 5.31 | | | | | - | - | | | | | | | | | iii)weaving | 4.80 | |
| | | | | iv)farm pond | 10.00 | | | | | | | | | | | | | | | iv)Basketing making | 0.15 | |
| | | | | v)channel | 0.17 | | | | | | | | | | | | | | | v)rice mill | 2.00 | |
| | | | | | | | | | | | | | | | | | | | | vi)Agriculture implements. | 1.15 | |
| | | | | | | | | | | | | | | | | | | | | v)Carpentry | 0.10 | |
| | | | | | | | | | | | | | | | | | | | | vi)Grocery | 2.70 | |
| | Total | | 1.08 | | 30.98 | | | | 2.00 | | | | 3.44 | | 2.16 | | 1.70 | | | | 13.39 | 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) | Drainage line (D) | Land Dev. (L) | Private | Com-munity | Others (pl. specify) | (i) UG (ii)SHG (iii) Other (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 completion | Actual month & year of completion (mm/yyyy) |
| | | | | | | | | | | | M | W | O | T | | | M | W | O | T | | |
| W.G.H | W.G.H-IWMP-VI | C.C.Check cum irrigation Dam | | D | | | Community | | UG/WC | 4 Nos. | 7.5 | 5 | | 12.5 | 3 yrs | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | Stone masonry Protection Wall | | D | | | Community | | UG/WC | 6 Nos | 1.8 | 1.2 | | 3 | 3 yrs | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | Wet Terrace | | | L | Private | | | UG/WC | 10 Ha | | 2.00 | | 2.00 | 3 yrs | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | Dug-out Pond | | D | | Private | | | UG/WC | 17 Nos | | 5.31 | | 5.31 | 3 yrs | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | Earthen Irrigation Channel | | D | | | Community | | UG/WC | 340 Rmt | | 0.17 | | 0.17 | 3 yrs | | | | | | | |
| | | Water harvesting farm pond | | D | | | | | UG/WC | 4 Nos | 6 | 4 | | 10 | 3 yrs | | | | | | | |
| Total | | | | | | | | | | 15.3 | 17.68 | | 32.98 | | | | | | | | | |

4.2.9 Details of engineering structures in watershed works.

[illegible]

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

| 1 | 2 | 3 | 4 | | | 5 | | | 6 | 7 | | | | 8 | | | |
|----------|-------------|--------------------------------|--------------------------|---------------------------------|------------------------------|----------------|-------------------|----------------------------------|---|--------------|------------------|------------------------------------|--|--------------|------------------|--|---|
| District | Project | Name of structure/ work | Type of treatment | | | Type of land | | | Executing agency | Target | | | | Achievement | | | |
| | | | (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 completion (mm/ yyyy) | Area (ha) | No. of plants | Expenditure incurred (Rs. in lakh) | Actual month & year of completion (mm/ yyyy) |
| W.G.H | IWMP -VI | Improvement of Degraded Forest | | | | | √ | | WC/UG | 10 | 10000 | 0.36 | 3 yrs | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Areca nut | | | | √ | | | Farmer | 25 | 30,000 | 1.72 | 3 yrs | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Rubber | | | | √ | | | Farmer | 40 | 18,000 | 1.72 | 3 yrs | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Total | | | | | | | | 75 | | 3.44 | | | | | |

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 Forest | NA | 0 | | | | | 240 | | 120 | 360 | | 50 | | 32 | 82 |
| | | | | | | | | | | | | | | | |
| Rubber Plantation | NA | 0 | 120 | 0 | 1440,000 | | 4000 | | 2000 | 6000 | | 25 | | 15 | 40 |
| | | | | | | | | | | | | | | | |
| Arecanut | NA | 300 | 770 | 240,000 | 620,000 | | 2300 | | 1120 | 3420 | | 28 | | 14 | 42 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Total | | 300 | 890 | 240,000 | 2056,000 | | 6540 | | 3240 | 9780 | | 103 | | 61 | 164 |

4.2.12 Details of allied / other activities:

| 1 | 2 | 3 | 4 | | | 5 | 6 | | 7 | |
|-----------------|---------|------------------------|--------------|----------------|-------------------------|--|------------------------------|---|-------------------------------------|---|
| District | Project | Name of activity@ | Type of land | | | Executing agency | Target | | Achievement | |
| | | | (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 | IWMP-VI | Kitchen Gardening | | | | Private | 0.25 | 3 yrs | | |
| | | Agriculture implements | | √ | | SHG/UG | 1.15 | 3 yrs | | |
| | | Piggery/ Poultry | | √ | | SHG/UG | 2.16 | 3 yrs | | |
| | | Tailoring | | √ | | SHG/UG | 2.24 | 3 yrs | | |
| | | Weaving | √ | | | SHG/UG | 4.80 | 3 yrs | | |
| | | Basket making | √ | | | Private | 0.15 | 3 yrs | | |
| | | Fingerlings | √ | | | Private | 0.25 | 3 yrs | | |
| | | Carpentry | √ | | | Private | 0.10 | 3 yrs | | |
| | | Rice mill | | √ | | SHG/UG | 2.00 | 3 yrs | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

(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 column 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 | 5000-6000 | 20,000-25,000 | | | | | | | 20 | NIL | 10 | 30 |
| Piggery | 25,000-30,000 | 60,000-70,000 | | | | | | | 10 | NIL | 30 | 30 |
| Poultry | 13,000-15,000 | 40,000-45,000 | | | | | | | 10 | NIL | 30 | 30 |
| Fingerlings | NIL | 50,000-60,000 | | | | | | | 15 | NIL | 10 | 25 |
| Rubber budded poly bag nursery | NIL | 85,000-90,000 | | | | | | | | NIL | 30 | 30 |
| | Total | | | | | | | | 55 | | 110 | 165 |

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

| 1 | 2 | 3 | 4 | 5 | 6 | | | | 7 | | | | | | | |
|------------------------|-------------------|-------------------------|---------------------------------|-------------------|-------------------------------------|-----------------------------|-------------------------------|-------------------------------------|--------------------------------------|----------------------------|-----------------------------|----------------|----|---|---------------------|--|
| Names of the Districts | Names of projects | Name(s) of the villages | CPR particulars | Activity proposed | Target | | | | Achievement | | | | | | | |
| | | | | | Target area under the activity (ha) | Estimated expenditure (Rs.) | Expected no. of beneficiaries | Estimated contribution to WDF (Rs.) | Area treated under the activity (ha) | Expenditure incurred (Rs.) | Actual no. of beneficiaries | No. of mandays | | | WDF collected (Rs.) | |
| | | | | | | | | | | | | SC | ST | F | | |
| West Garo Hills | WGH IWMP-VI | Daru | Repairing maintainance of CPR's | | | 0.875 | | 0.04375 | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | Bangdapara | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

CHAPTER V
PROJECT PHASING & BUDGETING

CHAPTER V
PROJECT PHASING & BUDGETING
ACTION PLAN OF DARU MICRO WATRSHED (IWMP) UNDER TERRITORIAL DIVISION, TURA.

Name of District : West Garo Hills
Name of C. & R. D. Block : Rongram

No. of villages Covered : 2 nos.
Project Area : 250.00 Ha.

(Figures in lakh)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------|---|---------------|-------------|-----------------|-------------|------------------|-------------|-----------------|-------------|---------------|------|------------|-------------|
| Sl. No. | Activities | I st Yr. (6%) | | II nd Yr. (14%) | | III rd Yr. (50%) | | IV th Yr. (25%) | | V th Yr. (5%) | | Total 100% | |
| | | Phy. | Fin. | Phy. | Fin. | Phy. | Fin. | Phy. | Fin. | Phy. | Fin. | Phy. | Fin. |
| I | <u>Management Cost :</u> | | | | | | | | | | | | |
| A | Administrative Cost : 10 % | - | - | 2% | 1.50 | 5% | 3.75 | 3% | 2.25 | - | - | 10% | 7.50 |
| | i) Honorarium of 1 WDT Member @ Rs.8000/- per month | - | - | - | 0.16 | - | 0.96 | - | 0.48 | - | - | - | 1.60 |
| | ii)Honorarium of watershed Committee Chairman @ Rs. 500/- per month | - | - | - | 0.06 | - | 0.06 | - | 0.06 | - | - | - | 0.18 |
| | iii) Honorarium of WCM @ Rs200/- per member per month | - | - | - | 0.216 | - | 0.216 | - | 0.216 | - | - | - | 0.648 |
| | iv) Honorarium of Chartered Accountant | - | - | - | 0.16 | - | 0.20 | - | 0.20 | - | - | - | 0.56 |
| | v) TA/DA of Field Asst. @ Rs.5000/- per month | - | - | - | 0.30 | - | 0.60 | - | 0.30 | - | - | - | 1.20 |
| | vi) Hiring Charges of Office Building @ Rs.1000/- per month | - | - | - | 0.12 | - | 0.12 | - | 0.12 | - | - | - | 0.36 |
| | vii) Hiring Charges of Vehicles @ Rs.5000/- per month | - | - | - | 0.30 | - | 0.60 | - | 0.60 | - | - | - | 1.50 |
| | viii)Office expenses, POL, Stationeries,Printing of SHG books, pamphlets, tea & snacks, cost of camera etc. | - | - | - | 0.184 | - | 0.994 | - | 0.274 | - | - | - | 1.452 |
| | Total Of 'A' | | | 2% | 1.50 | 5% | 3.75 | 3% | 2.25 | | | 10% | 7.50 |
| | Preparatory Phase : | | | | | | | | | | | | |
| B | Entry Point Activities ; 4 % | 4% | 3.00 | | | | | | | | | 4% | 3.00 |
| | i) Construction of Spring Chamber @ Rs. 60000/- per no. | 3 | 1.80 | - | - | - | - | - | - | - | - | 3 | 1.80 |
| | ii) Construction of Ringwell @ Rs.60000/- per no. | 2 | 1.20 | - | - | - | - | - | - | - | - | 2 | 1.20 |
| | Total of 'B' | 4% | 3.00 | | | | | | | | | 4% | 3.00 |

...C.O...

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-----------|---|-----------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|----|----|------------|--------------|
| C. | Institution & Capacity Building ; 5 % | 1% | 0.75 | 2% | 1.50 | 1% | 0.75 | 1% | 0.75 | | | 5% | 3.75 |
| | i) Awareness Campaign | - | 0.20 | - | 0.20 | - | 0.15 | - | 0.20 | - | - | - | 0.75 |
| | ii) Exposure visits off-campus | - | - | - | 0.5 | - | 0.3 | - | 0.35 | - | - | - | 1.15 |
| | iii) Capacity Building of SHGs/UGs | - | 0.20 | - | 0.40 | - | 0.20 | - | 0.20 | - | - | - | 1.00 |
| | iv) Capacity Building of WC members | - | 0.15 | - | 0.40 | - | 0.10 | - | - | - | - | - | 0.65 |
| | v) Capacity Building of WDT/W Volunteer | - | 0.20 | - | - | - | - | - | - | - | - | - | 0.20 |
| | Total of 'C' | 1% | 0.75 | 2% | 1.50 | 1% | 0.75 | 1% | 0.75 | | | 5% | 3.75 |
| D. | Detail Project Report (DPR) - 1% | 1% | 0.75 | | | | | | | | | 1% | 0.375 |
| | i) Cost of Resources Inventories works | - | 0.25 | - | - | - | - | - | - | - | - | - | 0.25 |
| | ii) Cost of PRA | - | 0.10 | - | - | - | - | - | - | - | - | - | 0.10 |
| | iii) Cost of Land use survey | - | 0.25 | - | - | - | - | - | - | - | - | - | 0.25 |
| | iv) Cost of formulating | - | 0.15 | - | - | - | - | - | - | - | - | - | 0.15 |
| | Total of 'D' | 1% | 0.75 | | | | | | | | | 1% | 0.75 |
| E. | i) Monitoring - 1% | - | - | - | 0.15 | - | 0.375 | - | 0.225 | - | - | 1% | 0.75 |
| | | | | 0.2% | 0.15 | 0.5% | 0.375 | 0.3% | 0.225 | | | 1% | 0.75 |
| F. | ii) Evaluation - 1% | - | - | - | 0.225 | - | 0.375 | - | 0.15 | - | - | 1% | 0.75 |
| | Total of 'E' | | | 0.3% | 0.225 | 0.5% | 0.375 | 0.2% | 0.15 | | | 1% | 0.75 |
| | Total of I (A to F) | 6% | 4.5 | 4.5% | 3.375 | 7% | 5.25 | 4.5% | 3.375 | | | 22% | 16.50 |
| II | <u>Watershed Works Phase : 50 %</u> | | | 7.50% | 5.625 | 35% | 26.25 | 7.50% | 5.625 | | | 50% | 37.50 |
| A. | Arable Land Treatment : | | | | | | | | | | | | |
| | iii) Terracing - @ Rs.20000/- ha. | - | - | 6 | 1.20 | - | - | 4 | 0.80 | - | - | 8 | 2.00 |
| | Total of 'A' | | | | 1.20 | | | | 0.80 | | | | 2.00 |
| B. | Non-Arable Land Treatment : | | | | | | | | | | | | |
| | a) Arecanut Plantation - Prelim. @ Rs.1300/- per ha. | - | - | 20 | 0.26 | - | - | - | - | | | | 0.26 |
| | 1st year Planting @ Rs.4600/- per Ha. | - | - | - | 0.92 | - | | - | - | - | - | | 0.92 |
| | 2nd year Planting @ Rs. 2700/- per Ha. | - | - | - | - | - | 0.54 | - | - | - | - | | 0.54 |
| | b) Imprvt .of Degraded Forest -Prelim. @ Rs.700/- per Ha. | - | - | 30 | 0.21 | - | - | - | - | - | - | | 0.21 |
| | 1 st year Planting @ Rs. 1900/- per Ha. | - | - | - | 0.57 | - | - | - | - | - | - | | 0.57 |
| | 2 nd year Planting @ Rs. 1000/- per ha. | - | - | - | - | - | 0.30 | - | - | - | - | | 0.30 |

..C.O...

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------------|--|---|---|-----------|---------------|--------------|--------------|--------------|--------------|--------------|----|------------|--------------|
| | c)Rubber pltn. - Pelim. @ Rs.1300/-per ha. | - | - | 20 | 0.26 | - | - | - | - | - | - | - | 0.26 |
| | 1st year Planting @ Rs.4600/- per Ha. | - | - | | 0.92 | - | - | - | - | - | - | - | 0.92 |
| | 2 nd year Planting @ Rs. 2700/- per ha. | - | - | - | - | - | 0.54 | - | - | - | - | - | 0.54 |
| | Total of B | | | | 3.54 | | 1.38 | | | | | | 4.52 |
| C. | Drainage Line Treatment : | | | | | | | | | | | | |
| | i) C.C. Irrigation Dam | - | - | - | - | 4 | 10.00 | 1 | 2.50 | - | - | - | 12.50 |
| | ii) W/H Farm Pond | - | - | - | - | 4 | 10.00 | | | - | - | - | 10.00 |
| | iii) Dug out-cum-Fishery Pond | - | - | 1 | 0.885 | 2 | 1.77 | 3 | 2.655 | - | - | - | 5.31 |
| | iv) Protection Wall | - | - | - | - | 6 | 3.00 | - | - | - | - | - | 3.00 |
| | v) Earthen Irrigation Channel @ Rs.50/-per R/m | - | - | - | - | 199 | 0.0995 | 140 | 0.07 | - | - | - | 0.17 |
| | Total of 'C' | | | | 0.8850 | | 24.87 | | 5.225 | | | | 30.98 |
| | Total of II (A to C) | | | | 7.5% | 5.625 | 35% | 26.25 | 7.5% | 5.625 | | 50% | 37.50 |
| III | <u>Livelihood Activities for Assetless Person - 10%</u> | | | 1% | 0.75 | 3% | 2.25 | 6% | 4.50 | | | 10% | 7.50 |
| | i) Kitchen Garden @ Rs.2500/- per unit | - | - | 3 | 0.05 | 6 | 0.15 | 2 | 0.05 | - | - | - | 0.25 |
| | ii) Pisciculture @ Rs. 10000/- per unit | - | - | 3 | 0.30 | 4 | 0.40 | 10 | 1.00 | - | - | - | 1.70 |
| | iii)Agricultural Implements @ Rs. 5000/- per unit | - | - | - | - | 2 | 0.10 | 21 | 1.05 | | | | 1.15 |
| | iv) Tailoring @ Rs. 8000/- per unit | - | - | - | 0.24 | 10 | 0.80 | 15 | 1.20 | | | | 2.24 |
| | v) Poultry/Piggery @ 8000/- per unit | - | - | - | 0.16 | 10 | 0.80 | 15 | 1.20 | | | | 2.16 |
| | Total of III | | | 1% | 0.75 | 3% | 2.25 | 6% | 4.50 | | | 10% | 7.50 |
| IV | <u>Production System & Micro Enterprises - 13%</u> | | | 1% | 0.75 | 5% | 3.75 | 7% | 5.25 | | | 13% | 9.75 |
| | i) Grocery @ Rs. 30000/- per unit | - | - | | 0.30 | | 1.50 | | 0.90 | | | | 2.70 |
| | ii)Weaving @ Rs. 30000/- per unit | - | - | | 0.30 | | 1.20 | | 3.30 | | | | 4.80 |
| | iii)Basket Making @ Rs.2500/- per unit | - | - | | 0.05 | | 0.05 | | 0.050 | | | | 0.15 |
| | iv)Carpentry @ Rs. 5000/- per unit | | | | 0.10 | | - | | - | | | | 0.10 |
| | v) Rice Mill @ Rs. 50000/- per unit | - | - | | - | | 1.00 | | 1.00 | | | | 2.00 |
| | Total of IV | | | 1% | 0.75 | 5% | 3.75 | 7% | 5.25 | | | 13% | 9.75 |

.....C.O.....

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------|---|-----------|------------|------------|--------------|------------|--------------|------------|--------------|-----------|-------------|-------------|--------------|
| V | <u>Consolidation & withdrawal Phase - 5 %</u> | | | | | | | | | 5% | 3.75 | 5% | 3.75 |
| | i) Repairing & maintenance 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 Completion Report. | - | - | - | - | - | - | - | - | - | 1.00 | - | 1.00 |
| | Total of V | | | | | | | | | 5% | 3.75 | 5% | 3.75 |
| | Grand Total | | | | | | | | | | | | |
| | (I + II + III + IV + V) | 6% | 4.5 | 14% | 10.50 | 50% | 37.50 | 25% | 18.75 | 5% | 3.75 | 100% | 75.00 |

Deputy Commissioner,
West Garo Hills, Tura
Meghalaya.

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

VILLAGEWISE ACTION PLAN OF DARU MICRO WATERSHED UNDER IWMP – VI
TERRITORIAL DIVISION : TURA .

Name of District : West Garo Hills

No. of village : 2 noS.

Name of C.& R.D. Block : Zikzak

Project Area : 500 Ha.

| Sl. No. | Activities | Darugre | | Bangdapara | | Total | |
|------------|---|---------|--------|------------|-------|-------|--------|
| | | Phy. | Fin. | Phy. | Fin. | Phy. | Fin. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| I | <u>Watershed works Phase :</u> | | | | | | |
| A. | <u>Non Arable Land Treatment :</u> | | | | | | |
| | i) Rubber Plantation @ Rs8600/- per Ha. | 10 | 0.86 | 10 | 0.86 | 20 | 1.72 |
| | ii) Arecanut Plantation @ Rs. 8600/- per Ha. | 10 | 0.86 | 10 | 0.86 | 20 | 1.72 |
| | iii) Degraded Forest @ 3600/- | 15 | 0.54 | 15 | 0.54 | 30 | 1.08 |
| B. | <u>Arable Land Treatment :</u> | | | | | | |
| | T erracing | 6 | 1.20 | 4 | 0.80 | 10 | 2.00 |
| C. | <u>Drainage Line Treatment :</u> | | | | | | |
| | i) Irrigation Dam @ Rs. 250000/- per no. | 3 | 7.50 | 2 | 5.00 | 5 | 12.50 |
| | ii) W/H Farm Pond @ Rs. 250000/- per no. | 2 | 5.00 | 2 | 5.00 | 4 | 10.00 |
| | iii) Dug out Pond @ Rs. 50000/- per no. | 3 | 2.655 | 3 | 2.655 | 6 | 5.31 |
| | iv) Protection Wall @ Rs. 50000/- per no. | 3 | 1.50 | 3 | 1.50 | 6 | 3.00 |
| | v) Earthen. Channel @ Rs.50/- per R/m | 199 | 0.0995 | 140 | 0.07 | 339 | 0.1695 |
| III | <u>Livelihood Activities for Assetless</u> | | | | | | |
| | i) Kitchn Gardn @ Rs. 2500/- per unit | 6 | 0.15 | 5 | 0.125 | 11 | 0.25 |
| | ii) Pisciculture @ Rs. 10000/- per unit | 10 | 1.00 | 7 | 0.70 | 17 | 1.70 |
| | iii) Tailoring @ 8000/- | 10 | 0.80 | 15 | 1.20 | 25 | 2.24 |
| | iv) Poultry @ 8000/- | 15 | 1.20 | 12 | 0.96 | 0.96 | 2.16 |
| IV | <u>Production System and Micro ss</u> | | | | | | |
| | i) Grocery @ Rs. 30000/- | 4 | 1.20 | 3 | 0.90 | 7 | 2.70 |
| | ii) Weaving @ .30000/- | 4 | 1.20 | 3 | 0.90 | 7 | 2.70 |
| | iii) Carpentry @ 5000/- | 1 | 0.05 | 1 | 0.05 | 2 | 0.10 |
| | <u>iv) Rice Mill</u> | 2 | 1.00 | 2 | 1.00 | 4 | 2.00 |

Details of the types of areas covered under the IWMP Programme:

| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | 8 | 9 | 10 | | | | 11 | | | | |
|--------------|---------------------|-------------------------|-------------------------|------------------------|-------------------------------------|-------------------|----------------------------|-------------------------------------|---|-----------------------------------|---------------------------------|---------------------------|--------------|--|----------------|-------------------|--|-----------------------|
| S L 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 | | Agri. Land | Forest land | Community land | Others (pl. specify) Horticulture plantation | Total area (ha) |
| | | | | | | | | | | | | a) Temporary fallow | b) Permanent | | | | | |
| 1 | Meghalaya | W.G.H | W.G.H - IWMP-VI | 2010 - 2011 | 2010 - 2011 | 2014 - 2015 | 500 Ha | 75 Lakhs | Daru | 0 | 470 | 30 | 0 | 70 | 30 | 0 | 400 | 500 |

Fund provision for the IWMP projects from all sources:

| 1 | 2 | 3 | | 4 | | | | | | | | | | 5 |
|--------------|------------------------|------------------|----------------|--|-------------------|------------------------------|--------------------------------|-----------|--------------------------------|--------------------------|------------------------------------|-------------------------|--------------------------------|---------|
| Distric t | 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 | Financi al contri- bution | Name | Financial contri- bution | |
| W.G. H | W.G.H- IWMP VI | 67.50 | 7.5 | NREGS | 73.752 | nil | nil | nil | Nil | nil | nil | nil | Nil | 148.752 |

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

| 1 | 2 | 3 | 4 | 5 | | | | 6 | | | | |
|---------|-----------------|-------------------|-------------------|---|--|---|---|---|---|--|--|---|
| Sl. No. | Names of States | Name of Districts | Names of Projects | Distt. Agency's Project Account details | | | | Watershed Committee (WC) account details: | | | | |
| | | | | Name of the Bank and Branch where project account has been opened | Account Number (to be obtained confidentially) | 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 confidentially) | Account type (Savings/ current others) | Name & Designation of authorized persons who operate the account. |
| 1 | Meghalaya | West Garo Hills | WGH IWMP VI | AXIS Bank Tura Hawakhana | 911020009 285573 | Saving | Chairman and Secretary of Watershed | Daru | AXIS Bank Tura Hawakhana | 91102000 9285573 | Saving | Chairman and Secretary of Watershed |

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 | | | | |
| West Garo Hills | WGH IWMP VI | - | - | | | - | - | - | - | - | - |
| | | | | | | | | | | | |

* 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 | | | | |
|--------|-----------|--------------------------------|---|---|--------------------------------|--|-----------------------|----------------|---------------------------|-------------------------------|----------------------------|-------------------------|
| Sl. 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 ^{\$} | Accreditation details | Performance | | | | |
| | | | | | | | | Reference 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 Devt. | NA | - | - | - | - | - |
| 2 | | SIRD | Nongsder | Director | State Govt. | Capacity Building | NA | - | - | - | - | - |
| 3 | | RRTC | Umran | Director | Don-Bosco | Agri-Horti, Animal Husbandry, Entrepreneurship | NA | - | - | - | - | - |
| 4 | | ICAR | Umiam | Director | Central Govt. | Do | NA | - | - | - | - | - |
| 5 | | VTC | Kyrdem Kulai | Director | State Govt. | Animal Husbandry | NA | - | - | - | - | - |
| 6 | | Fruit Garden | Shillong | Director | State 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.
- Technical experts in fields required by IWMP
 - Past experiences
 - Annual Turnover
 - Receives funds either from the Central or State Government
 - Publications
 - Not blacklisted by any Govt. organizations
 - Audited accounts
 - 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) |
| PIA | 15 | Nil | 15 | Nil | 3.75 | nil | 0.75 | Nil |
| WDTs | 4 | Nil | 4 | Nil | | | | |
| UGs | 45 | Nil | 45 | Nil | | | | |
| SHGs | 50 | Nil | 50 | Nil | | | | |
| WCs | 10 | Nil | 10 | Nil | | | | |
| GPs | Nil | Nil | Nil | Nil | | | | |
| Community | 218 | Nil | 218 | Nil | | | | |
| Others (Pl. specify) | nil | Nil | nil | Nil | | | | |
| | | | | | | | | |
| Total | 342 | Nil | 342 | Nil | 3.75 | 0 | 0.75 | 0 |

Table 6.3: Information, Education & Communication (IEC) activities for the year 09-10 as on 31/03/10 (dd/mm/yyyy)*

| | 1 | 2 | 3 | 4 | 5 |
|----|-------------------|-------------------------|--|---|---|
| | Activity | Executing agency | Estimated expenditure (Rs.) | Expenditure incurred (Rs.) | Outcome (may quantity, wherever possible) |
| 1. | Awareness | S&WC (T) Division | 0.40 | | a) Better understanding of Project concept . b) Preview of Project achievent. |
| 2. | Exposure Visits | S&WC (T) Division | 0.95 | | |
| 3. | Capacity Building | S&WC (T) Division | 0.20 | | |

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 | Darugre | - | 2254 | - | 2578 | - | - | 90 | - | 60 | 150 | - | 15 | - | 7 | 22 |
| 2 | Bangdapara | - | 2129 | - | 3007 | - | - | 85 | - | 70 | 156 | - | 25 | - | 17 | 42 |
| | TOTAL | - | 4383 | - | 5585 | - | - | 175 | - | 130 | 306 | - | 40 | - | 24 | 64 |

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 from 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 | | Total (Rs. in lakh) |
| 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) | |
| 5585 | 10.70 | 53 | 0.40 | 20 | 3.00 | 14.10 |

* 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 | |
| West Garo Hills | WGH IWMP-VI | Darugre | FW/MFP/T | Unspecified | Unspecified | 43 | | 43 | NIL | - |
| | | Manwapara | Wd | Unspecified | Unspecified | 18 | | 18 | NIL | - |
| | | - | Wi | Unspecified | Unspecified | 30 | | 30 | NIL | - |
| | | - | Wi | Unspecified | Unspecified | 30 | | 30 | NIL | - |
| | | - | FW/MFP/T | Unspecified | Unspecified | 23 | | 23 | - | - |
| | | - | Wd | Unspecified | Unspecified | 12 | | 12 | - | - |
| | | - | Wi | Unspecified | Unspecified | 15 | | 15 | - | - |
| | | - | Wi | Unspecified | Unspecified | 15 | | 15 | - | - |

* 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 |
| WGH | WGH IWMP VI | 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 months 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-VI | Insufficient | Sufficient | 10-12 Months | Moderate | Improved | Improved | |
| | | | | | | | | |

* 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-VI | 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. |
| WGH | IWMP-VIIWGH | Paddy | - | 14 2.9 7 | - | 12 | - | 1715. 64 | - | 62. 1 | - | 15 | - | 931.5 | 167. 07 | 38 | 16 | 15 | 2673.1 2 | 570 |
| | | Maize | - | 40 | - | 26 | - | 1040 | - | 33 | - | 24 | - | 792 | | 33 | | 24 | - | 792 |
| | | Vegetable | - | 5 | - | 30 | - | 150 | - | 5 | - | 30 | - | 150 | 6 | 4 | 36 | 30 | 216 | 150 |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | - | 18 7.9 7 | - | 68 | - | 2905. 64 | - | 100 .1 | - | 69 | - | 1873. 5 | 173. 07 | 75 | 52 | 69 | 2889.1 2 | 1512 |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

* 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 | WGH | WGH-IWMP-VI | Paddy | - | - | - | - | - | - | - | 136.6 | - | 15 | - | 2049 | 197 | - | 15 | - | 2955 | - |
| | | | | Vegetables | - | - | - | - | - | - | - | 6 | - | 36 | - | 216 | 6 | - | 36 | - | 216 | - |
| | | | | Total | - | - | - | - | - | - | - | 142.6 | - | 51 | - | 2265 | 203 | - | 51 | - | 3171 | - |

* 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 VI | | 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 |
| | | | | | 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 | | |
|----------|-----------------|---------------------|---------------------------------|-------------------|---------------------------|---|---|-----------------------------|
| District | Name of project | Duration of Project | Existing area under fodder (ha) | | | Achievement (ha) | | |
| | | | 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-VI | 5 yrs | NA | NA | NA | NIL | NIL | NIL |
| | | | | | | | | |

* 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 | | |
|----------|-----------------|---------------------|---|-------------------|--|--|--|--|
| District | Name of project | Duration of Project | Existing area tree cover (ha) | | | Achievement (ha) | | |
| | | | 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-II | 5 yrs | Land use survey conducted by the Department | 2010 | 36.50 | 30 | - | 66.50 |
| | | | | | | | | |

* 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-VI | 5 yrs | Land use survey conducted by the Department | 2010 | 124.37 | 40 | - | 164.37 |
| 124 | | | | | | | | |

* 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 |
| WGH | WGH IWMP VI | 5 Yrs. | NA | NA | NA | 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 7.7 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 | |
| | | Cattle | 143 | 300 | 9000 | 143 | 300 | 9000 | - | - | - | Use for ploughing & local consumption self production earning. |
| | | Piggery | 102 | | 200000 | 102 | | 200000 | 117 | | 350000 | |
| | | Poultry | 601 | - | 40000 | 601 | | 40000 | 650 | | 60000 | |
| | | Goatery | 107 | 100 | 3000 | 107 | 100 | 3000 | - | - | - | |
| | Total for all projects | - | 953 | 400 | 216000 | 953 | 400 | 216000 | 767 | - | 410000 | |
| | | | | | | | | | | | | |

* 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 | | | | |
|--------------|-------------------------|---------------------|--|--------------------------|------------------|----------------------------|-------------|--|------------------------------|----------|------------|-----------|-----------|--|----------|------------|-----------|----------|
| Distri ct | Proj ect | Name of activity | Fund required for the activity (Rs.) | Sources of funding (Rs.) | | | | Actual Expenditur e incurred on activity (Rs.) | No. of beneficiaries trained | | | | | No. of beneficiaries taking up activity | | | | |
| | | | | Project Fund | Benefi -ciary | Others (pl. specify) | Total | | SC | ST | Othe rs | Wome n | Tot al | SC | ST | Oth ers | Wome n | Total |
| W.G. H | W.G. HIW MP VI | Kitchen garden | - | 4.00 | - | - | 4.00 | - | - | - | - | - | - | - | - | - | - | - |
| | | Dug out Pond | - | 3.00 | - | - | 3.00 | - | - | - | - | - | - | - | - | - | - | - |
| | | Rice Mill | | 0.50 | | | 0.50 | - | - | - | - | - | - | - | - | - | - | - |
| | | 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 | Beneficiary | Others (pl. specify) | Total | | SF | MF | LF | Total | SF | MF | LF | Total |
| W.G.H | W.G.H-IWMP VI | Wet Terrace | 2.00 | 2.00 | | | 2.00 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Dug-out Pond | 5.31 | 5.31 | | | 5.31 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Rubber Plantation | 1.72 | 1.72 | | | 1.72 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Areca nut Plantation | 1.72 | 1.72 | | | 1.72 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Pisciculture | 1.70 | 1.70 | | | 1.70 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Kitchen garden | 0.25 | 0.25 | | | 0.25 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | tailoring | 1.70 | 1.70 | | | 1.70 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| | | Piggery/Poultry | 2.16 | 2.16 | | | 2.16 | 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 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 | |
| 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 |

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-VI | (A) Backward linkages | | 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 | 1 | 1 | 2 |
| | | (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 | NIL | NIL |
| | | (xii) Any other (please specify) | NIL | NIL | NIL |
| | | (A) Forward linkages | | | |
| | | (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 | NIL | NIL |
| | | (ix) Any other (please specify) | NIL | NIL | 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; 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 |
| 1 | Meghalaya | Status of water table | | Lack of management | Improved | |
| | | Ground water structures repaired/ rejuvenated | nil | nil | nil | |
| | | Quality of drinking water | 5 nos | unsafe | Better quality | |
| | | Availability of drinking water | - | 10 months in a year | 12 months availability | |
| | | Increase in irrigation potential | 11 nos | 24% irrigated | 94% irrigated | |
| | | Change in cropping/ land use pattern | - | Single cropping | Double Cropping | |
| | | Area under agricultural crop | | | | |
| | | i Area under single crop | Ha | 187.97 | 190.56 | |
| | | ii Area under double crop | Ha | 200.50 | 260.90 | |
| | | iii Area under multiple crop | Ha | nil | nil | |
| | | Net increase in crop production area | | 187.97 | 207.70 | 10.5% increase in cropping area |
| | | Increase in area under vegetation | | 36.50 | 86.50 | 137% increase in vegetation cover |
| | | Increase in area under horticulture | | 161.33 | 199.45 | |
| | | Increase in area under fuel & fodder | | 36.50 | 86.50 | 137% increase in vegetation cover |
| | | Increase in milk production | | NA | NA | NA |
| | | No. of SHGs | | nil | 5 | |
| | | Increase in no. of livelihoods | Activities | 1.) Agriculture 2) Horticulture | 1. Agriculture. 2. Horticulture. 3. vegetable Cultivation. 4. Piggery. 5. Poultry. | |
| | | Increase in income | Rs. | 20000-30000 | 50000-60000 | |
| | | Migration | Nos | nil | nil | |
| | | No. of school going children | | | | |
| | | SHG Federations formed | Nos. | nil | 1 | |
| | | Credit linkage with banks | Nos. | nil | 1 | |
| | | Resource use agreements | Nos. | None | a.) NOC for development work. b.) Agreements | |
| | | WDF collection & management | | None | | |
| | | Summary of lessons learnt | Nil | | | |

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-VI | Daru | As per treatment Plan | 54.75 | 86.2 | - | - | 1:1.57 |

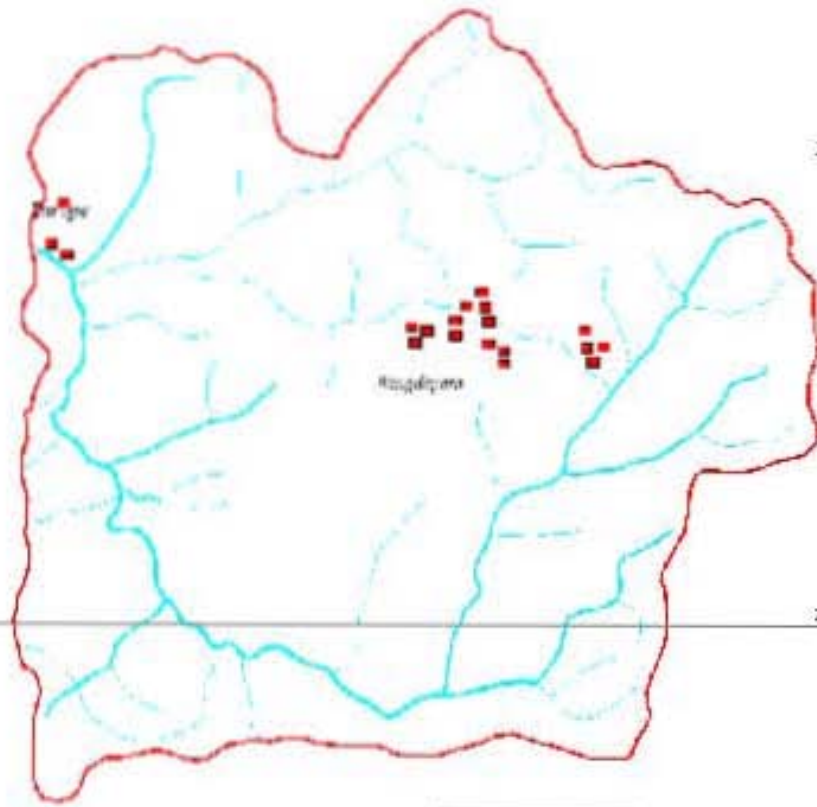
* from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at the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

[#] B:C ratio more than 1 – cost effective less than 1 – Not cost effective

ANNEXTURE-I

MAPS

DRAINAGE MAP



25° 25' 55.000" N

25° 25' 55.000" N



25° 25' 55.000" N

77° 20' 30.000" E

77° 20' 30.000" E

25° 25' 55.000" N

AGROCLIMATIC ZONE MAP

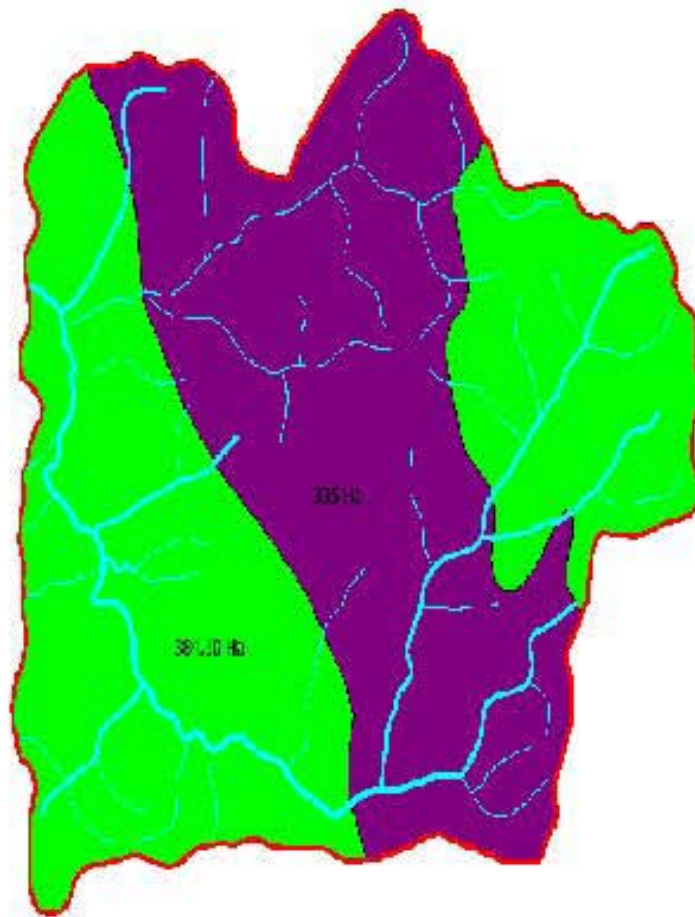


Hot, moisture (H.M)

Drainage

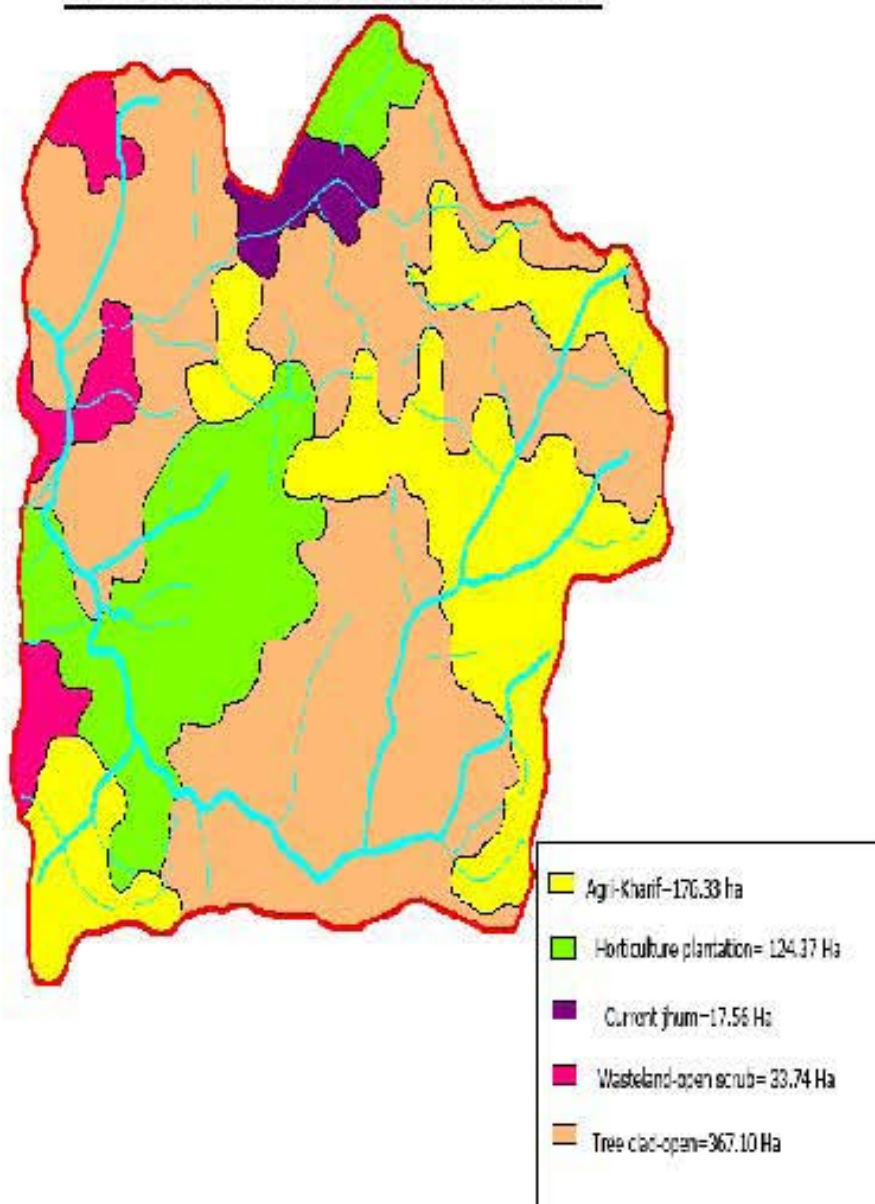
Boundary

SOIL MAP

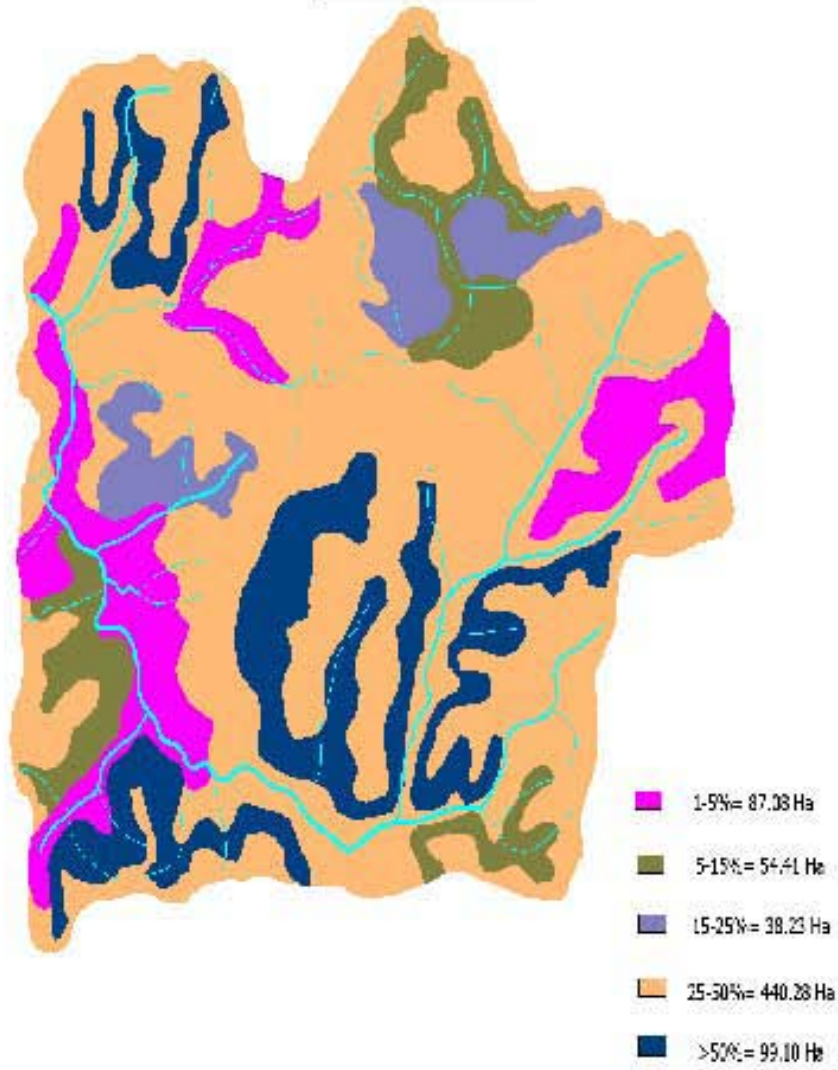


- Deep, excessively drained fine loamy soils
 - Deep, poorly drained clay fine soil
-

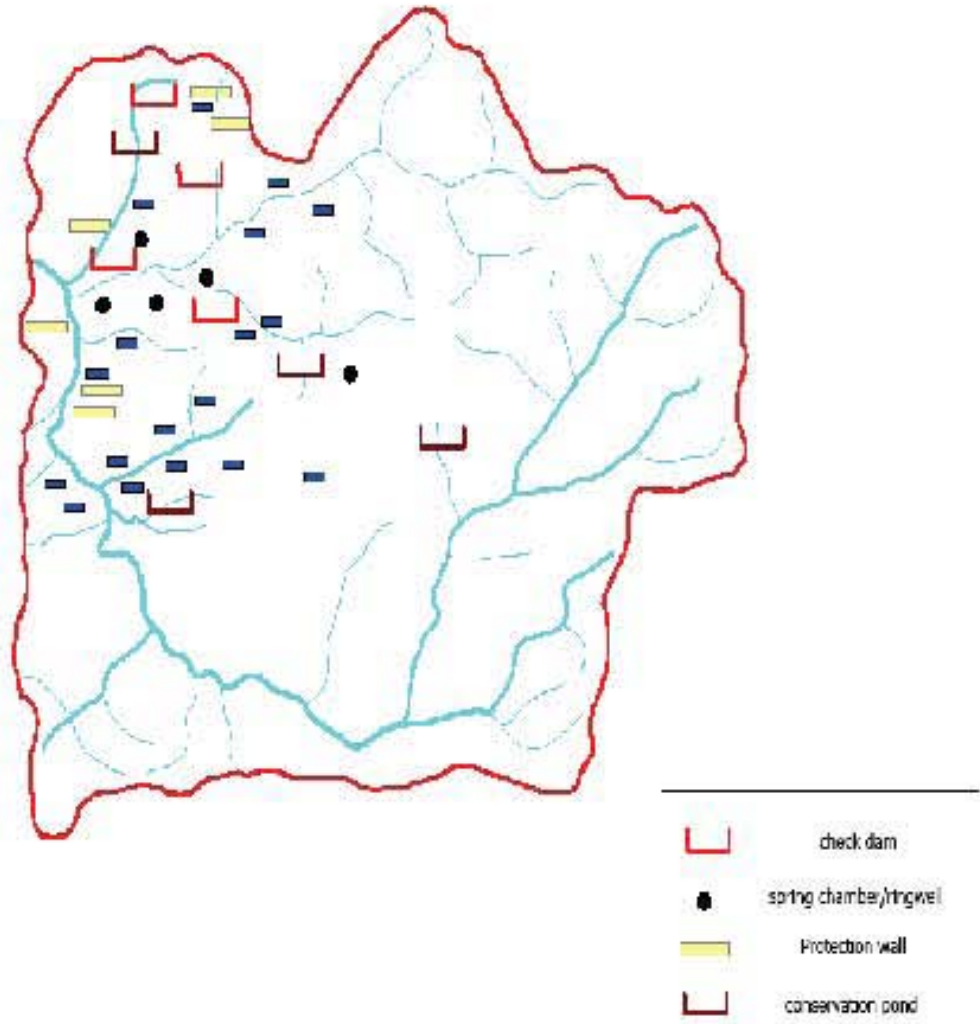
LAND USE LAND COVER MAP



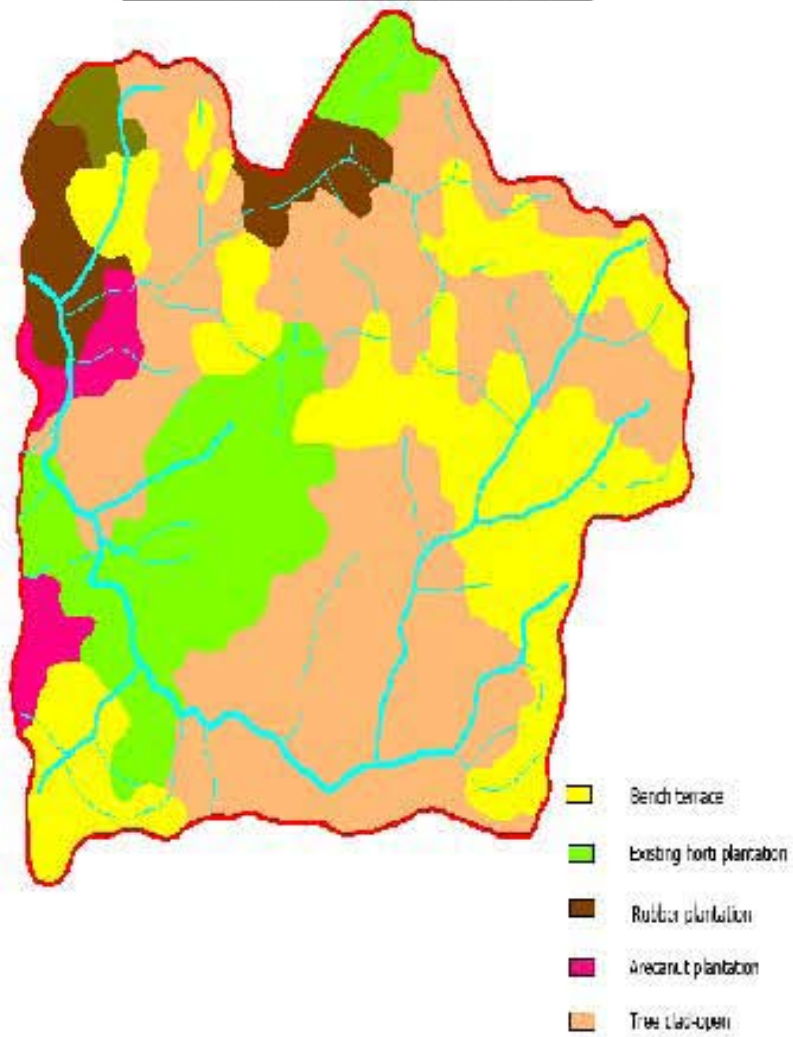
SLOPE MAP



PROPOSED ENGINEERING STRUCTURES



PROPOSED LAND USE MAP



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) = $W \times S / 100 - S$ | 2.5 |
| iii) Terrace Length (m) = $A / W + VI$ | 767.00 |
| iv) Earthwork = $12.50 \times W \times S \text{ m}^3$ | 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 | <u>Rs. 400.00</u> |
| 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 | <u>Rs. 400.00</u> |
| 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 | <u>Rs. 400.00</u> |
| 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 | <u>500.00</u> |
| 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 |
| Supply of fingerlings -1500 nos. @ Rs.3000/- per 1000 nos. | | |
| C. (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.

$$\begin{aligned}
 &1 \times \frac{\pi}{4} \times (1.20) \times 5.25 = 5.93 \text{ m}^3 \\
 &1 \times \frac{\pi}{4} \times (4.20) \times 0.30 = 4.15 \text{ m}^3 \\
 \text{Less: } &1 \times \frac{\pi}{4} \times (1.20) \times 0.30 = \underline{(-)0.34 \text{ m}^3} \\
 &= 9.74 \text{ m}^3
 \end{aligned}$$

(i) Upto 3m.depth.

@ Rs. 61 /- m³ Rs. **594.14**

$$1 \times 8.00 \times 0.50 \times 0.45 = 1.80 \text{ m}^3$$

@ Rs. 47 /- m³ 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.

$$\begin{aligned}
 &1 \times \pi \times 4.20 \times 1.50 \times 0.25 = 4.95 \text{ m}^3 \\
 &1 \times 8.00 \times 0.20 \times 0.10 = \underline{0.16 \text{ m}^3} \\
 &5.11 \text{ m}^3
 \end{aligned}$$

@ Rs. 1065 /- m³ Rs. **5442.15**

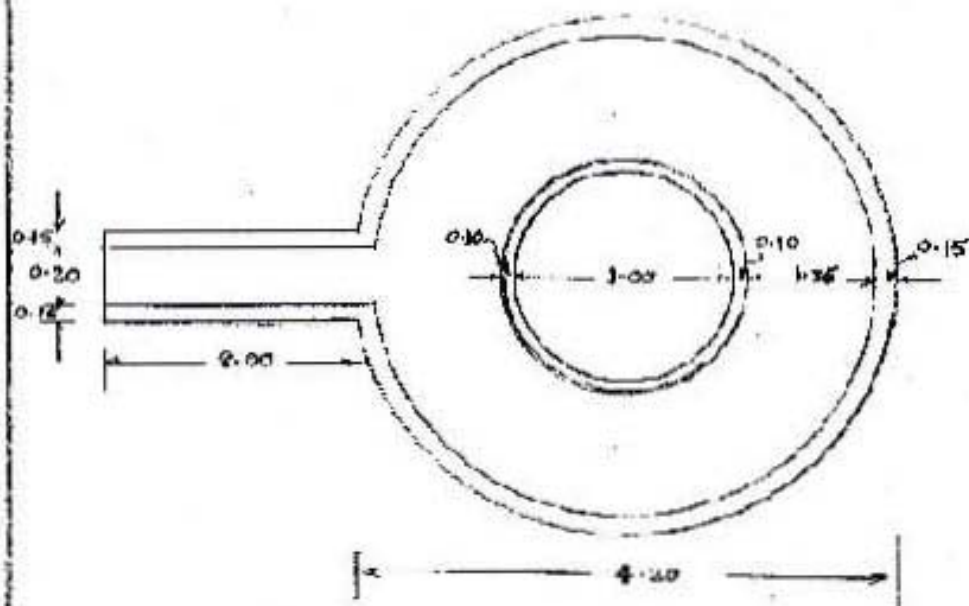
⁴/141 Plain/Reinforced c.c. in open foundation complete.
 (A) PCC G - M
 -15

$$\begin{array}{rclclclcl}
 1 & \times & \pi & \times & 4.20 & \times & 1.50 \times 0.15 & = & 2.97 \text{ m}^3 \\
 1 & \times & \pi & \times & 4.20 & \times & 0.15 \times 0.15 & = & 0.30 \text{ m}^3 \\
 2 & \times & 8.00 & \times & 0.15 & \times & 0.45 & = & 1.08 \text{ m}^3 \\
 1 & \times & 8.00 & \times & 0.20 & \times & 0.15 & = & 0.24 \text{ m}^3 \\
 & & & & & & & & \hline
 & & & & & & & & 4.59 \text{ m}^3
 \end{array}$$

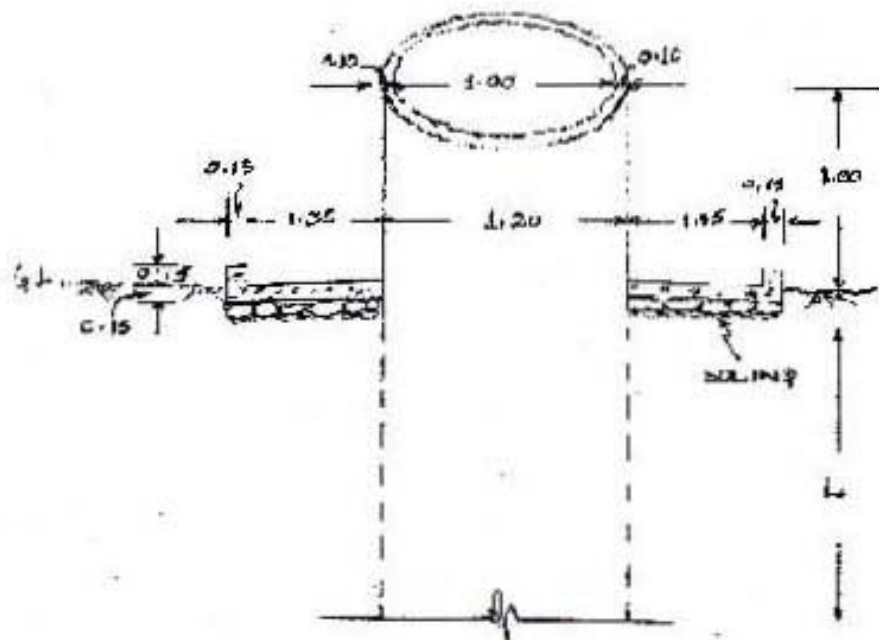
| | | | | | | | |
|--|---|-----|------|----|----------------|-----|-----------------|
| | @ | Rs. | 4090 | /- | m ³ | Rs. | 18773.10 |
| GRAND TOTAL : | | | | | | Rs. | 60025.24 |
| Say Rs. 60,000/- | | | | | | | |
| (Rupees Sixty Thousand) only. | | | | | | | |

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/- m³ 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/- m³ 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/- m³ Rs. 196156.40

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

$$\begin{array}{llll} \text{Apron :} & 1 \times 4.60 \times 6.00 \times 0.30 & = & 8.28\text{m}^3 \\ & 1 \times \frac{1}{2} \times 1.80 \times 6.00 \times 1.80 & = & 9.72\text{m}^3 \end{array}$$

$$\begin{array}{llll} \text{Less :} & 1 \times \frac{1}{2} \times 0.45 \times 6.00 \times 1.80 & = (-) & 2.43\text{m}^3 \\ & & \text{-----} & \\ & & = & 15.57\text{m}^3 \end{array}$$

$$\begin{array}{llll} @ \text{ Rs. } 2714/- \text{ m}^3 & & \text{.....} & \text{Rs. } 42256.98 \end{array}$$

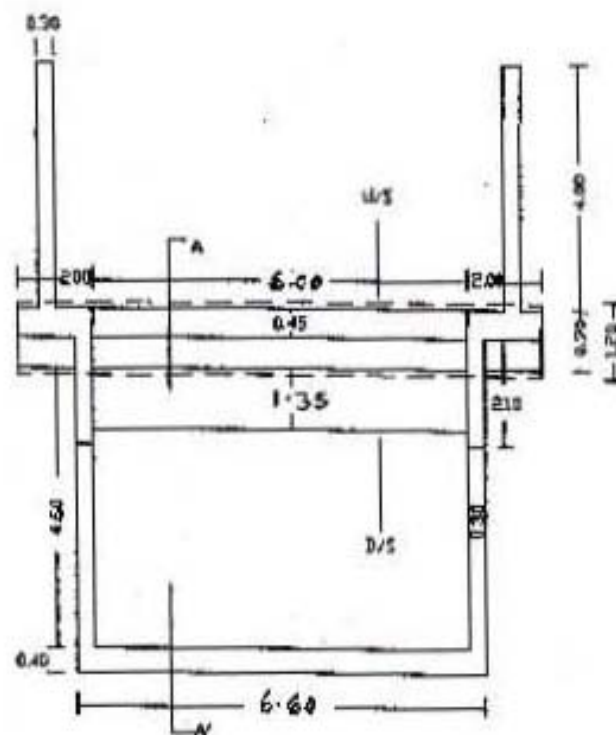
GRAND TOTAL = Rs. 250067.56

Say, Rs. 2,50,000.00

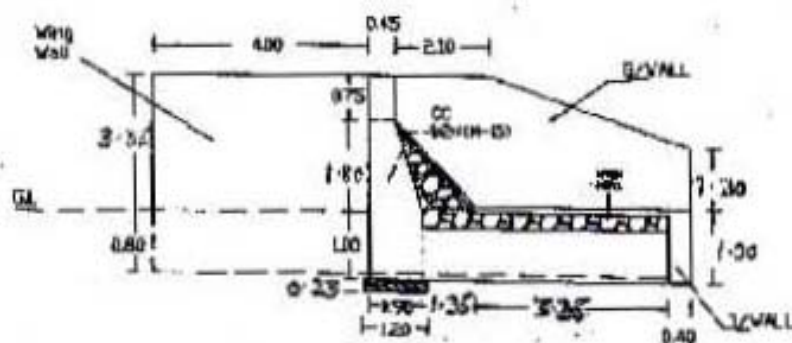
(Rupees Two lakh fifty thousand) only.

C. C. CHECK DAM

Not 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 : | $1 \times 18.00 \times 1.20 \times 1.25$ | $= 27.00\text{m}^3$ |
| | L/Channel : | $1 \times 8.00 \times 1.40 \times 1.10$ | $= 12.32\text{m}^3$ |
| | | | ----- |
| | | | $= 39.32\text{m}^3$ |
| | @ Rs. 47/- m^3 | | Rs. 1848.04 |
| 2/137. | P.C.C 1:3:6 in foundation.....etc. | | |
| | Core wall : | $1 \times 18.00 \times 1.20 \times 0.11$ | $= 2.38\text{m}^3$ |
| | @ 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 : | $1 \times 18.00 \times \frac{0.40 + 1.00}{2} \times 3.50$ | $= 44.10\text{m}^3$ |
| | L/channel : | $2 \times 8.00 \times 0.20 \times 1.15$ | $= 3.68\text{m}^3$ |
| | | $1 \times 8.00 \times 1.00 \times 0.10$ | $= 0.80\text{m}^3$ |
| | | | ----- |
| | | | $= 48.58\text{m}^3$ |

@ Rs. 4090/- m³

.....

Rs. 198692.20

-2-

4/28. Construction of embankment.

$$\text{Dam : } 1 \times 18.00 \times \frac{2.50 + 8.50}{2} \times 3.00 = 297.00\text{m}^3$$

$$\text{Less : } 1 \times 18.00 \times \frac{0.40 + 0.80}{2} \times 2.50 = (-) 27.00\text{m}^3$$
$$\text{-----}$$
$$= 270.00\text{m}^3$$

@ Rs. 71/- m³

.....

Rs. 19170.00

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

(I) Stone /boulders.

Dam U/S :

$$1 \times 18.00 \times 4.24 \times 0.20 = 15.26\text{m}^3$$

$$\text{L/Channel : } 1 \times 8.00 \times 1.00 \times 0.20 = 1.60\text{m}^3$$

$$\text{-----}$$
$$= 16.86\text{m}^3$$

@ Rs. 1086/- m³

.....

Rs. 18309.96

6/37. Turfing with sods.

$$\text{Dam D/S : } 1 \times 18.00 \times 4.24 = 76.32\text{m}^2$$

@ Rs. 46/- m²

.....

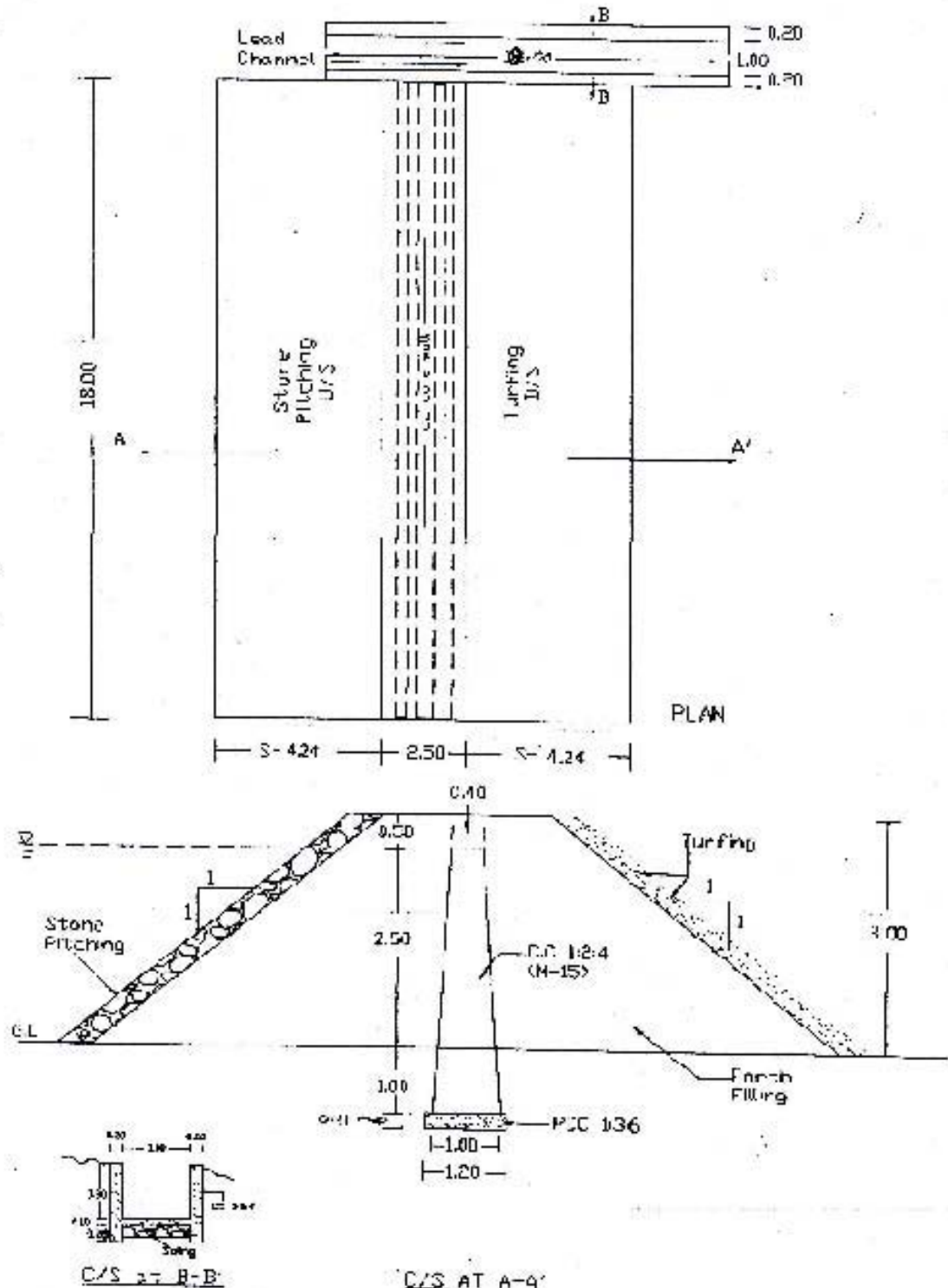
Rs. 3510.72

GRAND TOTAL = Rs. 250029.90

Say, Rs. 2,50,000.00

(Rupees Two lakh fifty thousand) only.

C.C. Core Wall with Earthwork Filled Dam
Embankment for Water Harvesting Structure



NB: All Dimension are
In Metre

Not to Scale

**ESTIMATE FOR THE CONSTRUCTION OF DUG - OUT POND UNDER INTEGRATED
WATERSHED MANAGEMENT PROGRAMME AS PER P.W.D. SCHEDULE OF
RATES**

**AS PER
P.W.D. SCHEDULE OF RATES
FOR ROAD AND BRIDGES
FOR**

**FOR ROADS & BRIDGES AND E & D WORKS FOR THE YEAR
2009-10.**

1. Site preparation L/s Rs. 200.00
2/67. Earthwork in excavation for foundation of structures upto 3 m depth as
per.....
..... With approved
material.

$$\frac{D}{6} \left\{ \frac{A+4}{B+C} \right\} m^2$$

$$A = \{ 27.00 \times 27.00 \} m = 729.00 m^2$$

$$B = \{ 24.00 \times 24.00 \} m = 576.00 m^2$$

$$C = \{ 21.00 \times 21.00 \} m = 441.00 m^2$$

$$D = \frac{1.51}{m}$$

$$\frac{D}{6} \left\{ \frac{A+4}{B+C} \right\} m^2$$

+

$$\frac{1.51}{6} \left\{ 729.00 + (4 \times 576.00) + 441.00 \right\} m^3$$

6 = 874.28 m³

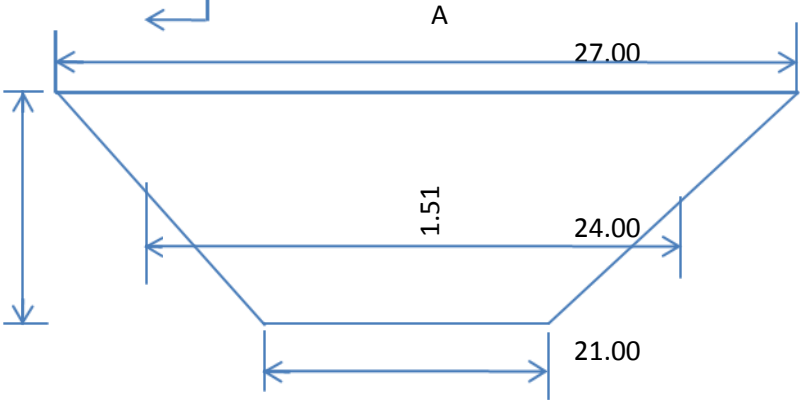
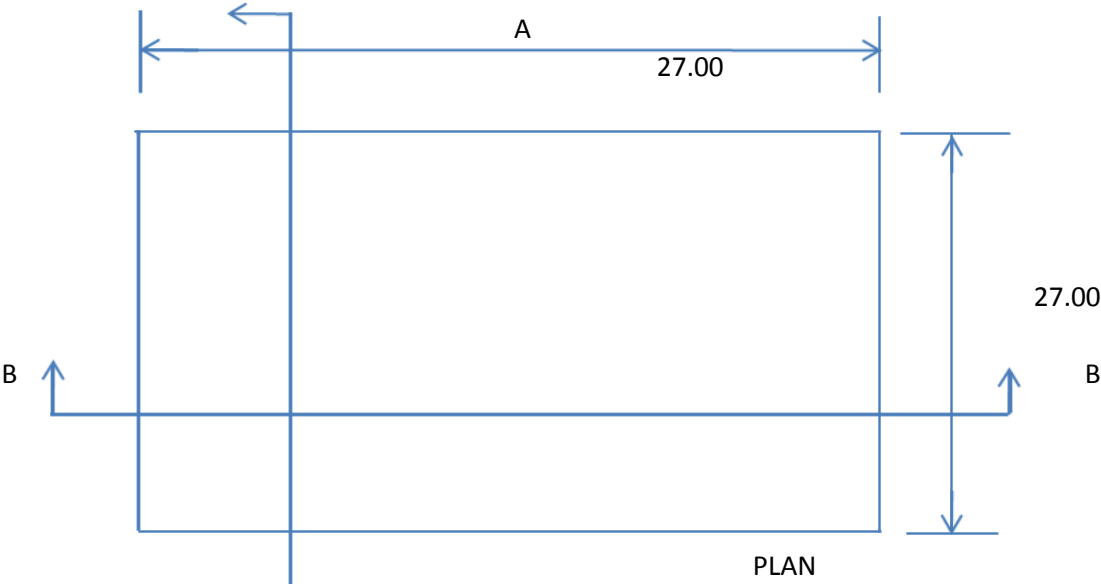
@ Rs 101/- m³ Rs. 88,302.28

Total : Rs. 88,502.28

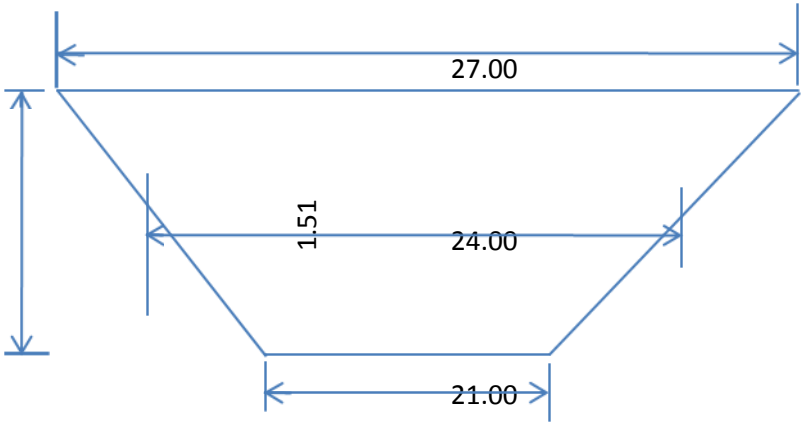
Say, Rs. 88,500.00

Rupees (eighty eight thousand five hundred) only

PLAN FOR DUG-OUT POND



SECTION-AA



SECTION-BB

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.

$$1 \times 10.00 \times 1.35 \times \frac{1}{2} (1.10 + 0.60) = 11.48\text{m}^3$$

$$1 \times 10.00 \times \frac{1}{2} \times 1.35 \times 0.38 = 2.57\text{m}^3$$

$$\text{-----}$$
$$= 14.05\text{m}^3$$

@ Rs. 47/- m³ Rs. 660.35

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

$$1 \times 10.00 \times 1.35 \times 0.10 = 1.35\text{m}^3$$

@ Rs. 3571/- m³ Rs. 4820.85

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

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

$$1 \times 10.00 \times \frac{1}{2} \times 1.10 \times 0.28 = 1.54\text{m}^3$$

$$\text{-----}$$
$$= 16.42\text{m}^3$$

@ Rs. 2714/- m³ Rs. 44563.88

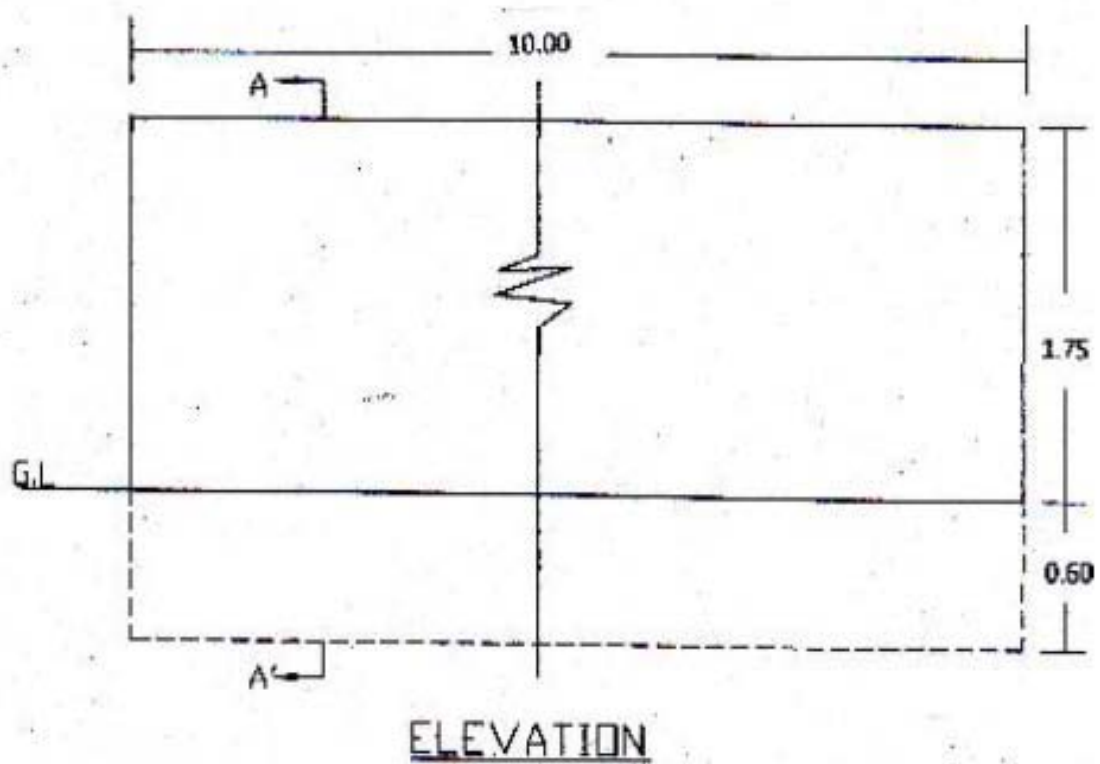
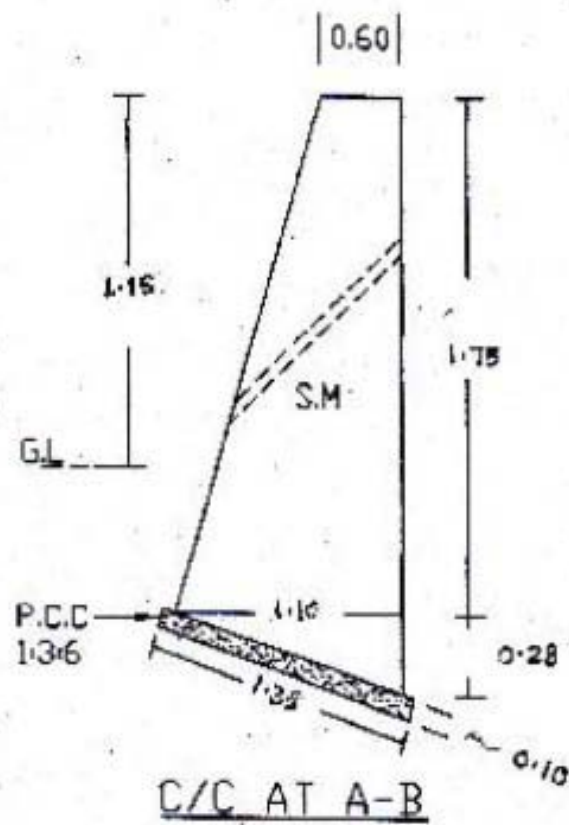
GRAND TOTAL = Rs. 50045.08

Say, Rs. 50,000.00

(Rupees Fifty thousand) only.

STONE MASONRY PROTECTION WALL

Not to Scale



ANNEXTURE-IV

MoA,Sub Committee Details Etc.

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



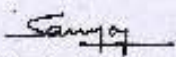
Phone: 03651-223835(O), 223826(R)
Fax: 03651-221179, 222226
e-mail: sanjaygoyal_ias@yahoo.com

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/Programme within West Garo Hills District.

Dated : Tura
The 14th April, 2011.




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

**ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGs WITH IWMP AT DARUGRE VILLAGE
UNDER DARU MICRO-WATERSHED, WGH-IWMP-VI**

Name of the Village : Darugre

Total No. of Job Card Holder : 58 Nos

Total Wages Component (@Rs. 177/- per m/days) = Rs 678600.00

Amount earmarked for Convergence per annum = Rs 678600.00

(Rupees Six lakhs seventy eight thousand six hundred) only

| SL.No | ACTIVITY | UNIT | PROJECT PERIOD | | | | | | | | | | | | Total | | | Mandays to be Generated |
|-------|--|------|----------------|--------|----------|---------|--------|----------|---------|--------|----------|---------|--------|----------|-------|---------|----------|-------------------------|
| | | | 2010-11 | | | 2011-12 | | | 2012-13 | | | 2013-14 | | | | | | |
| | | | PHY | FIN | | PHY | FIN | | PHY | FIN | | PHY | FIN | | PHY | FIN | | |
| | | | | Wages | material | | Wages | Material | | Wages | Material | | Wages | Material | | Wages | Material | |
| 1 | Dug out pond @50,000/- per Number | Nos | 6 | 300000 | | 1 | 50000 | | 2 | 100000 | | 6 | 300000 | | 15 | 750000 | | 6410 |
| 2 | Stone masonry Protection wall@ 50,000/- per number | Nos | 7 | 210000 | 140000 | 2 | 60000 | 40000 | 6 | 180000 | 120000 | 10 | 300000 | 200000 | 25 | 750000 | 500000 | 6410 |
| 3 | Water harvesting farm pond@2,50,000/- per number. | Nos | - | - | - | 1 | 150000 | 100000 | 1 | 150000 | 100000 | - | - | - | 2 | 300000 | 200000 | 2564 |
| 4 | C.C. check cum irrigation dam@ 2,50,000/- per number | Nos | 1 | 150000 | 100000 | 1 | 150000 | 100000 | 1 | 150000 | 100000 | - | - | - | 3 | 450000 | 300000 | 3846 |
| 5 | Earthen irrigation channel @ 50/-per Rmt. | Rmt | 372 | 18600 | - | 352 | 17600 | - | 152 | 7600 | - | 172 | 8600 | - | 1048 | 52400 | | 448 |
| 6 | Wet terrace @ 15,000/- per Ha | Ha | - | - | - | 10 | 150000 | - | - | - | - | - | - | - | 10 | 150000 | | 1282 |
| 7 | Rubber plantation: i)Planting @18,000/- per Ha | Ha | - | - | - | 15 | 27000 | - | 5 | 9000 | - | | - | - | 20 | 36000 | | 308 |
| | ii)Weeding@2,000/-per Ha | Ha | - | - | - | 15 | 30000 | - | 20 | 40000 | - | 20 | 40000 | - | 20 | 110000 | | 940 |
| 8 | Arecanut plantation: i)Planting @2,400/- Ha | Ha | - | - | - | 10 | 24000 | - | 5 | 12000 | - | | - | - | 15 | 36000 | | 308 |
| | ii)Weeding@2,000/-per Ha | Ha | - | - | - | 10 | 20000 | - | 15 | 30000 | - | 15 | 30000 | - | 15 | 80000 | | 684 |
| | | | | 678600 | 240000 | | 678600 | | | 678600 | - | | 678600 | | | 2714400 | 1000000 | 23200 |

Amount allocated for convergence for the period 2010-11 to 2013-14

1 Wages Component: = Rs. 2714400.00

2 Material Components: = Rs. 1000000.00

Grand Total = Rs. 3714400.00

Grand Total (Rupees Thirty seven lakhs fourteen thousand four hundred) only


 President
V.E.C. Darugre N.R.E.G.A.
P.O.- Bandalkona, West Garo Hills,
 President
 Darugre VEC
 Tikrikilla Block, WGH


 Secretary
Darugre VEC (MGNREGS)
West Garo Hills
 Secretary
 Darugre VEC
 Tikrikilla Block, WGH

| SL.No | ACTIVITY | UNIT | PROJECT PERIOD | | | | | | | | | | | | Total | | | Mandays to be Generated |
|-------|--|------|----------------|--------|----------|---------|--------|----------|---------|--------|----------|---------|--------|----------|-------|---------|----------|-------------------------|
| | | | 2011-12 | | | 2012-13 | | | 2013-14 | | | 2014-15 | | | | | | |
| | | | PHY | FIN | | PHY | FIN | | PHY | FIN | | PHY | FIN | | PHY | FIN | | |
| | | | | Wages | material | | Wages | Material | | Wages | Material | | Wages | Material | | Wages | Material | |
| 1 | Dug out pond @50,000/- per Number | Nos | 6 | 300000 | | 2 | 100000 | | 4 | 200000 | | 2 | 100000 | | 14 | 700000 | | 5983 |
| 2 | Stone masonry Protection wall@ 50,000/- per number | Nos | 9 | 270000 | 180000 | - | - | 40000 | 2 | 60000 | 40000 | 6 | 180000 | 200000 | 17 | 510000 | 340000 | 4359 |
| 3 | Water harvesting farm pond@2,50,000/- per number. | Nos | - | - | - | 1 | 150000 | 100000 | 1 | 150000 | 100000 | 2 | 300000 | - | 4 | 600000 | 400000 | 5128 |
| 4 | C.C. check cum irrigation dam@ 2,50,000/- per number | Nos | - | - | - | 2 | 300000 | 200000 | 1 | 150000 | 100000 | | | - | 3 | 450000 | 300000 | 3846 |
| 5 | Earthen irrigation channel @ 50/-per Rmt. | Rmt | 204 | 10200 | - | 84 | 4200 | - | 524 | 26200 | - | 304 | 15200 | - | 1116 | 55800 | - | 477 |
| 6 | Wet terrace @ 15,000/- per Ha | Ha | 5 | 75000 | - | - | - | - | - | - | - | - | - | - | 5 | 75000 | - | 641 |
| 7 | Rubber plantation: i)Planting @18,000/- per Ha | Ha | - | - | - | 15 | 27000 | - | 5 | 9000 | - | - | - | - | 20 | 36000 | - | 308 |
| | ii)Weeding@2,000/-per Ha | Ha | - | - | - | 15 | 30000 | - | 20 | 40000 | - | 20 | 40000 | - | 20 | 110000 | - | 940 |
| 8 | Arecanut plantation: i)Planting @2,400/- Ha | Ha | - | - | - | 10 | 24000 | - | | - | - | - | - | - | 10 | 24000 | - | 205 |
| | ii)Weeding@2,000/-per Ha | Ha | - | - | - | 10 | 20000 | - | 10 | 20000 | - | 10 | 20000 | - | 10 | 60000 | - | 513 |
| | Grand Total | | - | 655200 | 180000 | | 655200 | - | | 655200 | 240000 | | 655200 | - | | 2620800 | 1040000 | 22400 |

Amount allocated for convergence for the period 2011-12 to 2014-15

| | | | | |
|---|----------------------|---|-----|------------|
| 1 | Wages Component: | = | Rs. | 2620800.00 |
| 2 | Material Components: | = | Rs. | 1040000.00 |
| | Grand Total | = | Rs. | 3660800.00 |

Grand Total (Rupees Thirty six lakhs sixty thousand eight hundred) only

President

Bangdapara VEC

Zikzak Block, WGH

11/11/2014
President

Bangdapara V.E.C. (M.R.)
P.O. Bangdakken

Secretary

Bangdapara V.E.C. Ur. No
P.O. Bangdakken

Bangdapara VEC

Zikzak Block, WGH

Sri Dinonsing P. Sangma

Nokma

DARUGRI II-19

P.O.-BANDALKONA-794115

Dist.-West Garo Hills.



Date 10.11.2018

Subject:- Aiking Nokmani Sonkarina No-Objection
Certificate See on ami.

Anga Pa. Dinonsing P. Sangma Darugri Song
Aiking (5) 11-19 Nokma; Anynei Sangma government
je Projek-tu Development-ranghoba barchina, Nokmani
Kosakp Dorang Songni mandrang Complaint
kama manjaana. Maina carang pilak Sonkarini
kamrang Songni-Nokni mandrangna mikkangche
janggi tangani chol onga.

Uni ginin Songni mandrangni nam nikani
gita Anga Darugri Songni Aiking Nokmani gita
Sonkarina No-Objection Certificate See on unga.

[Signature]
10.11.18

Darugri A P.O. Land 11-19

P.O.-Bandalkona 794115

West Garo Hills, Meghalaya

Dinonsing P. Sangma
Nokma Darugri Aiking (Land)
West Garo Hills (Meghalaya)

Smt. Renji M. Sangma

Nokma

Bangdapara A-king II-19(21)

P.O. Salmanpara

Dist. West Garo Hills

Meghalaya.



Date: 8/12/10

*Suli:- No objection Lorthybiak for the water ceth
Scheme*

Sir

*Maya nadimangna akyoni nokoma ni gita
ia Scheme to ka'na angni a'ah' ona namungla
nungni'ni dangjan deahla angni akyoni
man deangla angni kolako complex ka'na manjawa
ina anga Aking nokoma ni gita nadimangna
Sakki on'paanga*

Yur fiakh fully

Smt Renji M. Sangma

Nokma

Bangdapara A-king II-19(21)

P.O. Salmanpara

Dist West Garo Hills Meghalaya

R.M.S.

Smt. R. M. Sangma

Nokma II-19(21)

Bangdapara A-king

West Garo Hills