

Executive Summary of the DPR of Bhikhi Microwatershed Gawan Block, Giridih District, Jharkhand

1. Project details, present status of the area:

Gawan Milliwatershed (IWMP-10) project is located in Gawan Block, Giridih District of Jharkhand state. The project is a cluster of eleven micro-watersheds which are 2A4C2n1g, 2A4C2n1e, 2A4C2s2c, 2A4C2s2b, 2A4C2l1a, 2A4C2l1f, 2A4C2l1b, 2A4C2s3a, 2A4C2l1g, 2A4C2l1h and 2A4C2l1c being their respective codes. The total project area of the watershed is about 7216.540 hectare, out of which 6494.62 hectare has been undertaken to be treated under Integrated Watershed Management Programme (IWMP) year 2010-14. The project area lies in the edges of Mica Mining of Koderma and Giridih district and also known for *Dibhra Collection and Extremist activity*.

Bhikhi Microwatershed (2A4C2l1h) lies in the Gawan block, Giridih district of the Jharkhand state. It has the geographical area of 746.14 hectare. The proposed treatment area is 671.526 hectare and the total cost of **Bhikhi Microwatershed (2A4C2l1h)** is 80.58 lakhs (Eighty Lakhs and Fifty Eight Thousands). The **Bhikhi Microwatershed** is bounded by 24°33'56.49" to 24 °36'30.74" North latitude and 85° 51' 14.06" to 85 ° 53'06.06" East longitude. Biodiversity refers to variation and abundance of species in their living environment. The people are solely dependent on forest for firewood, fodder, food and timber.

Bhikhi Microwatershed (2A4C2l1h) has a total of 974 households with a population of 5804 (*as per base-line survey*) out of which 2955 are male and 2849 female. The sex ratio is 1:00.96. There are 570 BPL families. The average family size is 6. The major castes in the village are Schedule Caste and OBC. Majority of population is involved in agriculture and animal husbandry. For employment they go to the mining in forest for Dibhra collection. During summer peoples are facing problem for drinking water.

2. Vision Statement:

Community organization in the form of SHG, UG and WC would be the basic of watershed processes and it would cover 70% of the watershed families. Natural Resource Management (NRM) interventions such as soil moisture conservation measures, water harvesting structures tanks, horticulture plantation etc are proposed to benefit 65% of the project families. It is expected that the NRM activities would increase ground water table by 3-4 meters, increase irrigated command area by additional 126 hectares. Additionally, it will check soil erosion, reduce run off, improve moisture

availability and improve the soil quality. 49% (net 327.82 Ha) of the watershed area will be brought under treatment. Cropping intensity will be increase up to 180% through different type of agriculture related intervention like demonstration and training. Through promotion of modern agriculture practices and proper management of water crop productivity will be increase 2-3 times in the case of Paddy and 1.5-2 times for wheat as compare to the present productivity. For vegetable cultivation the increase will be 8-10 times through increments in cultivation area. Micro enterprises such as Dairy, Poultry, goat rearing, Mushroom cultivation will ensure the livelihood of 30% of the project families with an additional annual income of over Rs. 20,000. These interventions are aimed to reduce the migration up to 25%.

Nearly 75% of the watershed families would be capacitated through various trainings, exposures, demonstrations etc. and to participate in activities implementation, monitor the progress of work at different level. The institutions promoted in the project villages are expected to take care of the assets and infrastructures. The Community Based Organizations will continue, expand and sustain the effort even after the completion of the project period.

3. PIAs strength: The DFO, Giridih is the PIA of Bhikhi Microwatershed. The PIA is responsible for supervising, planning, implementing, documenting and promoting watershed development projects in the area as per guidelines. The PIA have Dedicated and experienced staff and a multidisciplinary team to execute the watershed programme. PIA has experienced Civil Engineer, Agricultural Scientist, Horticulturist and Community Organizer as WDT member.

4. Salient Project Activities: In *Bhikhi Microwatershed*, People's participation and collective action are important ingredients for watershed management. Sustainability, equity and participation are the three basic elements which have been followed to execute the programme. Continuous Contour Trench, Farm Bunding, Water Absorption Trench, Seepage Tank, Farm Pond, Horticulture, Afforestation, Demonstration Plot to introduce rabi crop has taken to execute in the watershed. Various demonstrations Plot to improve agriculture practice and Trainings programme for capacity building to improve livelihood is planned to execute in the village. The details of the activity are given in **Annexure I**. The development activity will be carried out by the secretary and other member of Watershed Committee under joint supervision of President of WC and PIA. Further it is evaluated by the villager in Gram Sabha. Technical support to construction of water harvesting structure and capacity building programme will be looked after by the WDT member and PIA. A Total 26060

mandays have been created and a sum of Rs. 1.41 lakhs has been generated as watershed development fund.

5. Convergence: The total cost required for treatment of Bhikhi Microwatershed (2A4C2I1h) is ` 113.08 lakhs (One Crore Thirteen Lakhs and Eighty Thousands). The 32.50 lakhs has more funds for integrated development of village, so that amount would be pooled from convergence. For convergence programme MGNREGA, TSC , SSA and SGSY fund of Gawan Block and afforestation fund of Department of Forest will be used. In addition KVK, Giridih; BAU, Ranchi; and some NGO have been identified and approached for taking help for sustainable livelihood programme.

6. Exit policy: Watershed development fund has been collected and it will deposit in separate account for repairing and maintenance of watershed structure in future. Beside this the WC will also decide to charge some ` to users which is known as user charges which will also deposit in WDF account. Gram Sabha will be the last and final institution to take any decision to implement the programme and PIA will help to strengthen it. After completion of the project the entire watershed structures constructed in the area will be handed over the villagers through Gram Panchayat. The outcomes of the project will increase the income level, change standard of living, generate off farm and farm income and established linkage with bank.

| Bhikhi Microwatershed (2A4C2I1h) | | | | | | | | | |
|---|------------------------------|-----------------|-----------------|---------|--|---------|---------|---------|---------|
| Giridih, Jharkhand | | | | | | | | | |
| State Level Nodal Agency- Jharkhand State Watershade Mission (SLNA- JSWM) | | | | | | | | | |
| Name of PIA : DFO Giridih | | | | | No. of Families existing under Micro watershed : 974 | | | | |
| Name of micro Watershed: Bhikhi(Code 2A4C2I1h) | | | | | No. of BPL Families: 570 | | | | |
| Block covered: Gawan | | | | | No. of Exiting SHG : 00 | | | | |
| District: Giridih | | | | | No. of SHG to be formed : 52 | | | | |
| Name of villages: Aragaro, Jagtara, Parariya, Bhikhi, Khakhaswakoni, Kumhiatari | | | | | No. of Exiting UG : 00 | | | | |
| Total geographical area of Micro Watershed (Ha) : 746.140 | | | | | No. of UG Formed : 42 | | | | |
| Total proposed area to be treated (Ha) : 671.526 | | | | | No. of Exposure visit to be Conducted :14 | | | | |
| Total Budget (Rs. In Lakh): 80.58 | | | | | No. of training to be proposed : 55 | | | | |
| | | | | | No. of Person Days to be Generated: 26060 | | | | |
| | | | | | Date of Approval from Gram sabha : 28/03/11 | | | | |
| Bhikhi Microwatershed (2A4C2I1h) | | | | | | | | | |
| Cumulative physical breakup for five Year Plan (2009-2014) | | | | | | | | | |
| S.No | Activities | Unit | physical target | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| 1 | Soil Conservation | | | | | | | | |
| | i. Continuous Contour Trench | Ha. (400rm/ha) | 23.28 | P | 23.28 | 0 | 0 | 0 | 0 |
| | ii. Water Absorption Trench | Ha. (100rm/ha) | 23.28 | R | 0 | 23.28 | 0 | 0 | 0 |
| | iii. Loose Boulder Check | No. | 50.00 | O | 50 | 0 | 0 | 0 | 0 |
| | iv. Farm Bunding | Ha. (120m3/ha) | 30.16 | J | 0 | 0 | 30.16 | 0 | 0 |
| 2 | Water Conservation | | | E | | | | | |
| | i. Farm Pond (100x100x12 ft) | No. | 12 | C | 1 | 4 | 3 | 3 | 1 |

| | | | | | | | | | |
|----------|---|-----------------------|-------|----------|-----|-------|-------|-----|---|
| | ii. Farm Pond (60x60x12 ft) | No. | 2 | T | 1 | 0 | 1 | 0 | 0 |
| | iii. Earthen Check Dam - 100ft length | No. | 2 | S | 1 | 2 | 2 | 1 | 0 |
| | iv. Earthen Check Dam - 150ft length | No. | 6 | A | 1 | 1 | 2 | 2 | 0 |
| | v. Earthen Check Dam - 220ft length | No. | 2 | N | 0 | 0 | 1 | 1 | 0 |
| | vi. Pond Renovation (100x100x6 ft) | No. | 1 | C | 1 | 0 | 0 | 0 | 0 |
| | vii. Ahar Renovation (400 ft) | No. | 1 | T | 0 | 0 | 0 | 1 | 0 |
| | viii. Ahar Renovation (250 ft) | No. | 2 | I | 0 | 1 | 0 | 1 | 0 |
| 3 | Plantation | | | O | | | | | |
| | i. Afforestation | Ha. (1100plant/ha) | 23.28 | N | 0 | 23.28 | 0 | 0 | 0 |
| | ii. Horticulture Dev. | Ha. (100 plant/ha) | 12.60 | E | 0 | 0.00 | 12.60 | 0 | 0 |
| 4 | Production System and Micro Enterprises(13%) | | | D | | | | | |
| | i. Agriculture demonstration | 30 demo | 30 | | 5 | 10 | 10 | 5 | 0 |
| | ii. SRI | 33 families | 33 | | 8 | 10 | 10 | 5 | 0 |
| | iii. Composite farming | 2 families | 2 | | 0 | 0 | 1 | 1 | 0 |
| | iv. Kitchen Garden | 600 families | 600 | | 100 | 100 | 200 | 200 | 0 |
| | v. Irrigation system | 10 farmers | 10 | | 0 | 0 | 3 | 3 | 4 |
| | v. Fruits plant distribution | 513 families | 513 | | 513 | 0 | 0 | 0 | 0 |
| 5 | Livelihood Activity (10%) | | | | | | | | |
| | i. Goat farming | 46 families | 46 | | 6 | 10 | 10 | 20 | 0 |
| | ii. Poultry | 30 families | 30 | | 10 | 10 | 10 | 0 | 0 |
| | iii. Dairy Development | 19 families | 19 | | 0 | 4 | 5 | 10 | 0 |
| | iv. Mushroom cultivation | 20 families | 20 | | 0 | 10 | 0 | 10 | 0 |
| 6 | Institution and capacity building(5%) | | | | | | | | |
| | i. SHG conceptual & basic training | | 6 | | 3 | 3 | 0 | 0 | 0 |
| | ii. Watershed Workshop | | 2 | | 2 | 0 | 0 | 0 | 0 |
| | iii. SHG exposure | | 2 | | 1 | 1 | 0 | 0 | 0 |
| | iv PIA | | 2 | | 1 | 1 | 0 | 0 | 0 |

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|----------|---|--|-----|--|-----|---|---|---|---|
| | v. UG for Resource Using | | 2 | | 1 | 0 | 1 | 0 | 0 |
| | vi. Training on Soil water Conservation | | 2 | | 1 | 1 | 0 | 0 | 0 |
| | vii. Vermicompost & Organic farming training | | 2 | | 0 | 0 | 1 | 1 | 0 |
| | viii. Training on forest & Horticulture Development | | 2 | | 1 | 1 | 0 | 0 | 0 |
| | ix. Exposure Visit W/s village | | 1 | | 1 | 0 | 0 | 0 | 0 |
| 7 | Entry Point Activity(4%) | | | | | | | | |
| | i. Renovation of well | | 3 | | 3 | | | | |
| | ii. Pond (50ft x 50ft x 8ft) | | 2 | | 2 | | | | |
| | iii. Distribution of fruit trees | | 675 | | 675 | | | | |
| | iv. Distribution of vegetable seeds | | 1 | | 1 | | | | |
| | v. Training for vermicompost | | 1 | | 1 | | | | |
| | vi. Distribution of school bags | | 104 | | 104 | | | | |
| | vii. Onstruction of steps in Pond | | 1 | | 1 | | | | |
| | viii. Promotion of hand weaving | | 1 | | 1 | | | | |
| | ix. Drip Irrigation | | 1 | | 1 | | | | |
| 8 | Preparatory phase | | | | | | | | |
| | i. DPR preparation | | 1 | | 1 | | | | |

Signature of CEO, SLNA

Signature of PIA

Signature of
WDT

Signature of WC, secretary

| Bhikhi Microwatershed (2A4C211h) | | | | | | | | | | |
|--|---------------------------------------|-----------|----------------|-----------------|----------|---------------|---------------|---------------|---------------|---------------|
| Giridih, Jharkhand | | | | | | | | | | |
| State Level Nodal Agency- Jharkhand State Watershed Mission (SLNA- JSWM) | | | | | | | | | | |
| Name of PIA : DFO Giridih | | | | | | | | | | |
| Name of micro Watershed: Bhikhi (2A4C211h) | | | | | | | | | | |
| Block covered: Gawan | | | | | | | | | | |
| District: Giridih | | | | | | | | | | |
| Cumulative Financial breakup for five Year Plan (2009-2014) | | | | | | | | | | |
| S.No | Activities | Quantity | Unit Cost (Rs) | Total Cost (Rs) | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| 1 | Soil Conservation | | | | | | | | | |
| | i. Continuous Contour Trench | 23.28 Ha. | 1903/-ha | 44302 | P | 44302 | 0 | 0 | 0 | 0 |
| | ii. Water Absorption Trench | 23.28 Ha. | 5500/- ha | 128040 | R | 0 | 128040 | 0 | 0 | 0 |
| | iii. Loose Boulder Check | 50 No. | 2900/- unit | 145000 | O | 145000 | 0 | 0 | 0 | 0 |
| | iv. Farm Bunding | 30.16 Ha. | 7490/ha | 225898 | J | 0 | 0 | 225898 | 0 | 0 |
| | Sub Total | | | 543240 | E | 189302 | 128040 | 225898 | 0 | 0 |
| 2 | Water Conservation | | | | C | | | | | |
| | i. Farm Pond (100x100x12 ft) | 12 no. | 127100/- unit | 1525200 | T | 127100 | 508400 | 381300 | 381300 | 127100 |
| | ii. Farm Pond (60x60x12 ft) | 2 no. | 46700/- unit | 93400 | S | 46700 | 0 | 46700 | 0 | 0 |
| | iii. Earthen Check Dam - 100ft length | 2 no. | 87700/-unit | 175400 | A | 0 | 0 | 87700 | 87700 | 0 |
| | iv. Earthen Check Dam - 150ft length | 6 no. | 109300/-unit | 655800 | N | 109300 | 109300 | 218600 | 218600 | 0 |
| | v. Earthen Check Dam - 220ft length | 2 no. | 185000/-unit | 370000 | C | 0 | 0 | 185000 | 185000 | 0 |
| | vi. Pond Renovation (100x100x6 ft) | 1 no. | 48600/- unit | 48600 | T | 48600 | 0 | 0 | 0 | 0 |
| | vii. Ahahar Renovation (400 ft) | 1 no. | 64900/- unit | 64900 | I | 0 | 0 | 0 | 64900 | 0 |
| | viii. Ahahar Renovation (250 ft) | 2 no. | 60800/- unit | 121600 | O | 0 | 60800 | 0 | 60800 | 0 |
| | Sub Total | | | 3054900 | N | 331700 | 678500 | 919300 | 998300 | 127100 |
| 3 | Plantation | | | | E | | | | | |
| | i. Afforestation | 23.28 Ha. | 13926/- ha | 324197 | D | 0 | 324197 | 0 | 0 | 0 |
| | ii. Horticulture (Mango etc.) | 12.60 Ha. | 16675/-ha | 210151 | | 0 | 0 | 210151 | 0 | 0 |
| | Sub Total | | | 534348 | | 0 | 324197 | 210151 | 0 | 0 |

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|----------|---|------------|-----------------|----------------|--|---------------|----------------|----------------|---------------|---------------|
| | Total 1+2+3 (51.28%) | | | 4132488 | | 521002 | 1130737 | 1355349 | 998300 | 127100 |
| 4 | Production System and Micro Enterprises(13%) | | | | | | | | | |
| | i.Agriculture demonstration | 30 | 4000/- unit | 120000 | | 20000 | 40000 | 40000 | 20000 | 0 |
| | ii.SRI technique | 33 | 5000/- unit | 165000 | | 40000 | 50000 | 50000 | 25000 | 0 |
| | iii. Composite farming | 2 | 30000/-unit | 60000 | | 0 | 0 | 30000 | 30000 | 0 |
| | iv. Kitchen Garden | 600 | 500/- unit | 300000 | | 50000 | 50000 | 100000 | 100000 | 0 |
| | v. Irrigation system | 10 | 30000/-unit | 300000 | | 0 | 90000 | 90000 | 120000 | 0 |
| | vi. Fruits plant distribution | 513 | 200/- unit | 102581 | | 102581 | 0 | 0 | 0 | 0 |
| | Sub Total | | | 1047581 | | 212581 | 230000 | 310000 | 295000 | 0 |
| 5 | Livelihood Activity (10.00%) | | | | | | | | | |
| | i.Goat farming | 46 | 5000/- unit | 229145 | | 29145 | 50000 | 50000 | 100000 | 0 |
| | ii.Poultry | 30 | 6000/-unit | 180000 | | 60000 | 60000 | 60000 | 0 | 0 |
| | iii. Dairy Development | 19 | 15500/-unit | 294500 | | 0 | 62000 | 77500 | 155000 | 0 |
| | iv. Mushroom cultivation | 20 | 5000/-unit | 102186 | | 0 | 50000 | 0 | 52186 | 0 |
| | Sub Total | 115 | | 805831 | | 89145 | 222000 | 187500 | 307186 | 0 |
| 6 | Institution and capacity building(5.00%) | | | | | | | | | |
| | i. SHG conceptual & basic training | 150 | 12000/ unit x 6 | 72000 | | 36000 | 36000 | 0 | 0 | 0 |
| | ii. Watershed Workshop | 50 | 13000/ unit x 2 | 26000 | | 26000 | 0 | 0 | 0 | 0 |
| | iii. SHG exposure | 50 | 24000/unit x 2 | 48000 | | 24000 | 24000 | 0 | 0 | 0 |
| | iv PIA | 10 | 28400/unit x 2 | 56800 | | 28400 | 28400 | 0 | 0 | 0 |
| | v. UG for Resource Using | 50 | 13000/unit x 2 | 26000 | | 13000 | 0 | 13000 | 0 | 0 |
| | vi. Training on Soil water Conservation | 30 | 24000/unit x 2 | 48000 | | 24000 | 24000 | 0 | 0 | 0 |
| | vii. Vermicompost & Organic farming training | 20 | 24000/unit x 2 | 48000 | | 0 | 0 | 24000 | 24000 | 0 |
| | viii. Training on forest & Horticulture Development | 50 | 13000/unit x 2 | 26000 | | 13000 | 13000 | 0 | 0 | 0 |
| | ix. Exposure Visit W/s village | 40 | 52116/unit | 52116 | | 52116 | 0 | 0 | 0 | 0 |
| | Sub Total | 450 | | 402916 | | 216516 | 125400 | 37000 | 24000 | 0 |
| 7 | Entry Point Activity(2.72%) | | | | | | | | | |

| | | | | | | | | | |
|-----------|-------------------------------------|-----|----------------|--|----------------|----------------|----------------|----------------|---------------|
| | i. Renovation of well | 3 | 48000 | | 48000 | 0 | 0 | 0 | 0 |
| | ii. Pond (50ft x 50ft x 8ft) | 2 | 62000 | | 62000 | 0 | 0 | 0 | 0 |
| | iii. Distribution of fruit trees | 675 | 27000 | | 27000 | 0 | 0 | 0 | 0 |
| | iv. Distribution of vegetable seeds | 1 | 18000 | | 18000 | 0 | 0 | 0 | 0 |
| | v. Training for vermicompost | 1 | 5000 | | 5000 | 0 | 0 | 0 | 0 |
| | vi. Distribution of school bags | 104 | 16000 | | 16000 | 0 | 0 | 0 | 0 |
| | vii. Onstruction of steps in Pond | 1 | 28000 | | 28000 | 0 | 0 | 0 | 0 |
| | viii. Promotion of hand weaving | 1 | 8000 | | 8000 | 0 | 0 | 0 | 0 |
| | ix. Drip Irrigation | 1 | 7000 | | 7000 | 0 | 0 | 0 | 0 |
| | Sub Total | | 219000 | | 219000 | 0 | 0 | 0 | 0 |
| 8 | Prepatory phase (1.00%) | | | | | | | | |
| | i. DPR preparation | | 80583 | | 80583 | 0 | 0 | 0 | 0 |
| | Sub Total | | 80583 | | 80583 | 0 | 0 | 0 | 0 |
| 9 | Management Component (12%) | | | | | | | | |
| | i. Administration cost (10%) | | 805831 | | 161166 | 161166 | 161166 | 161166 | 161165 |
| | ii. Monitoring (1%) | | 80583 | | 16117 | 16117 | 16117 | 16117 | 16116 |
| | iii. Evaluation (1%) | | 80583 | | 16117 | 16117 | 16117 | 16117 | 16116 |
| | Sub Total | | 966997 | | 193400 | 193400 | 193400 | 193400 | 193397 |
| 10 | Consolidation phase (5%) | | 402916 | | | | | | 402916 |
| | G.Total 1+2+3+4+5+6+7+8+9 | | 8058312 | | 1532227 | 1901537 | 2083249 | 1817886 | 723413 |

Signature of CEO, SLNA

Signature of PIA

Signature of WDT

Signature of WC, secretary

ACTIVITY MAP - Bhikhi Microwatershed

