Ministry of Rural Development
Government of India

छत्तीसगढ़ शासन

Mahatma Gandhi NREGA
Ministry of Rural Development, Govt. of India

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

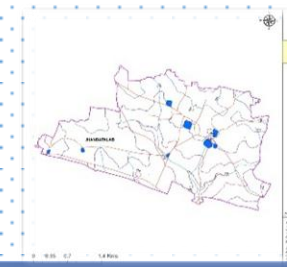
SOP

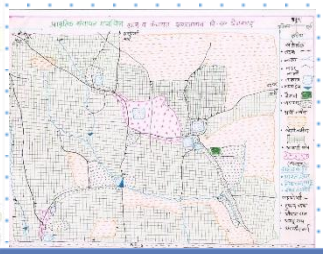
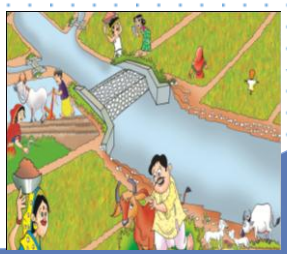
Standard Operating Procedures

Collective action and institution building for environmental benefit works under MGNREGA

SAMARTHAN- Centre for Development Support

Raipur, Chhattisgarh (INDIA)




1. Abbreviations

MGNREGA- Mahatma Gandhi National Rural Employment Guarantee Act

EB- Environmental benefit

IPPE-II- Intensive Participatory Planning Exercise-II

GS- Gram Sabha

GP- Gram Panchayat

IEC- Information Education and Communication

MATE- Local supervisors

Prakriti Meetan- Nature's Friend

Paryavan Mitan- Environmental Friend

PRI- Panchayati Raj Institution

DPR - Detailed Project Report

MoRD- Ministry of Rural Development

CGCOST - Chhattisgarh Council of Science & Technology

CG – Chhattisgarh

CEO ZP – Chief Executive Officer, Zilla Parishad

BCD- Bolder Check Dam

SHG- Self Help Group

PMKSY- Prime Minister Krishi Sinchayee Yojna

2. Introduction

GIZ and Ministry of Rural Development, Government of India signed a five-year agreement on “Environmental benefits through Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS-EB)” in April 2013. The objective of MGNREGS-EB was to implement high quality works through MGNREGS while taking into consideration environmental aspects. It involved participation of community with capacity building of Panchayats to undertake works related to natural resource management. Indicators have also been developed by MoRD and GIZ to measure the progress on project objectives like development of demonstration sites based on principles of natural resource management, participation of women in Gram Sabhas. The Indo-German project “Environmental benefits of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA-EB)” aimed at contributing to the improvement of livelihood resource base of the rural economy by promoting conservation, replenishment and sustainable use of natural resources.

New strategy of Chhattisgarh Government focuses on comprehensive village development plan which had been developed under IPPE-II. It includes all aspects of the village development like skill development; watershed, drinking water, sanitation, livelihood etc. Moreover, it also incorporates issues of social justice and inclusion of the marginalized sections through MGNREGS and other schemes. The purpose of this intervention was to provide the help to Panchayats for developing participatory plans and to pursue its implementation through convergence with the other departments and schemes.

The approach promotes participatory processes within the Panchayats and make change in system at JP and ZP level so that MGNREGS work could be implemented according the comprehensive plan developed by GP and ensured livelihood promotion through sustainable intervention on natural resources like water, soil, forests etc. Programme planning suggests a chain of actions starting with rapport building with people, capacity building of GP/ Gram Sabha, participatory planning, designing, building community organizations, participatory implementation and monitoring.

2.1. Scope: This standard operating procedure will include all functions pertaining to livelihood promotion through sustainable intervention on natural resources like water, soil, forests etc. by collective action and institution building for environmental benefit works under MGNRGEA.

3. Objectives

The objective of the SOP document is to capacitate community leaders, PRI members and other stakeholders by promoting the program model of collective action and institution building for environmental benefit works under MGNRGEA.

3.1. By providing efficient systems for collective action and institution building among PRI members, community leaders, departments of the Government at all levels including State / district /block administration and NGOs for sustainable intervention on natural resources like water, soil, forests etc. through MGNREGA and other similar programs.

3.2. Build capacity of Gram Panchayat and Block level MGNREGA unit in implementation and monitoring of works related to environment benefits, maintenance of assets and develop climate change adaptation perspective among the key stakeholders.

3.3. Capacity building tool for Gram Panchayats, MATE (local supervisor), user groups and Gram Sabha in effective planning for environmental benefit works under MGNRGEA.

3.4. Build capacities of govt. line departments at district, block and village levels in effective planning at Gram Sabhas for environmental benefit works under MGNRGEA.

3.5. To ensure effective management of water resources through community participation and community led water resource management system in the villages through collective actions and institution building.

3.6. Support in timely and quality implementation of works in coordination with MGNREGA block and district units and in convergence with other line departments.

3.7. Integrate value chain initiatives in collaboration with other government initiatives (like SRLM etc.) and other actors like NABARD.

3.8. Capacitate others to develop climate resilience Livelihood based model of Drainage line treatment while enhancing the agriculture interventions.

4. Steps for Collective action and institution building for environmental benefit works under MGNREGA

4.1. Situation analysis and baseline assessment: A situation analysis is a key foundation for any sound intervention. It helps to ensure a programme's relevance and to find out the best course of action (e.g. strategies, entry points, partnerships) by learning about community attitudes and practices regarding collective environmental benefit works under MGNREGA; identifying what has already been done in the Gram Panchayats and what results and lessons were obtained, as well as who the main actors have been and who might be key to engage. In addition to ensuring the appropriateness of the intervention to the local context, carrying out a situational analysis will help avoid duplication of efforts.

Baseline assessment included household surveys through pre-formed questionnaire, focus group discussions and other PRA tools like resource map, social map and seasonal calendar.

The objectives of baseline assessment is to determine socio-economic status of target population, their livelihood pattern, cropping pattern and functioning and status of Gram Sabha.

Baseline assessment can help in determining following important aspects:

- Number of natural resource management related works undertaken in MGNREGA.
- Opportunities for new works related to natural resource management.
- Participation of women and marginalized section of the society in planning and implementation of works related to MGNREGA.
- Participation of women in Gram Sabhas and level of participation of villagers while preparing the labor budget.
- Analysis of impacts on livelihood pattern through MGNREGA either by PRIs or community.

Secondary data from different line departments needs to be collected like Agriculture Department, Irrigation Department. Because secondary data is helpful in assessing rainfall pattern, soil texture and ground water status of the target area.

4.2. Identification of community leaders: Potential community leaders in Gram Panchayats and village level community resource person needs to be identified for

developing community level resource pool of change makers. This resource group consisting of community leaders will act as multiplier for the program and boost the community engagements in overall process. They can be identified through a Gram Sabha or special Gram Sabha in the targeted Gram Panchayat.

4.3. Selection of environmental benefit works: Selection of environmental benefit works and watershed needs to be done through detailed discussion with Gram Sabha along with collection of revenue & forest dept. map, satellite imageries which help in determining work sites, start and end points of Nalah, number of villages and hectares of land associated with them. The process needs to be done in consultation with government departments like CGCOST- Chhattisgarh Council of Science & Technology, Zila Panchayat, PHE and Agriculture Department.

4.4. Obtaining satellite imageries and guidance from relevant agency (GIS & remote sensing): satellite imageries, advice about the projected activities and measures necessary for the work activities. Cadastral and contour maps can be obtained from Chhattisgarh Council of Science and Technology (CGCOST). They will advise the projects by applying modern Science and Technology for the socio-economic development works. Satellite images can also be obtained from the concerned agency of the state or various secondary sources like Google map & other online tool. Cadastral maps can be used for finding the land ownership pattern in the village. Contour maps will be used to find out the nature of the ground, Catchment area and hence quantity of water flow. Resource maps can be compared with cadastral and contour maps to determine the suitable sites for project interventions. Various spots mentioned in cadastral and contour maps needs to be checked on site for ground trothing of projected sites.

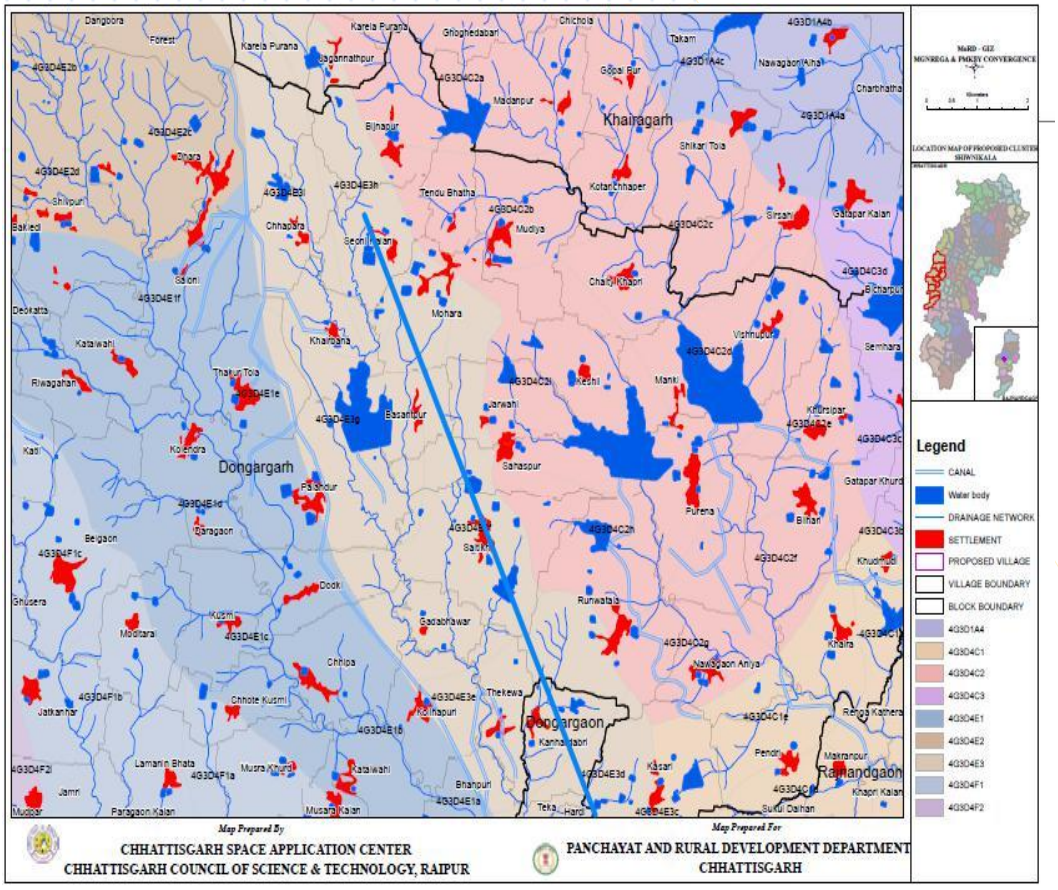
4.4.1. Technical support from CGCOST (Chhattisgarh Council of Science & Technology): Modern technology on socio-economic development are now accessible to the community through the innovative state agencies like CGCOST. The initial planning done on traditional revenue & forest map can be shared with the technical agency. The key benefits of taking technical advice are as listed below:

i. **Community can relate scientific data at ground level:** These inputs from CGCOST will help in relating the ground situations with scientific data in a simple manner.

ii. **Enhance understanding on natural resources:** While developing DPR at Gram Panchayat these inputs will guide the community level stakeholders to understand the natural resources and support in developing plan for watersheds in the targeted areas.

iii. **Expert guidance on topography of the area:** Community will get the water flow direction, possible storage locations, water irrigation catchment area and also help in planning structure for environmental benefit works in the Gram Panchayat.

Example says: *these data and guidance received from the CGCOST has guided the community in Rajnandgaon, C.G. to understand the possible threats to the projects and inputs received from CGCOST for marginal shift of the structures (i.e. 10 to 15 meters). But these marginal shift of the structures has miraculously resulted very cost effective and more feasible structures with consideration to geo-physical data.*



4.5. DPR Preparation: Detailed project report is prepared for the investment decision-making approval, but also execution of the project and also preparation of the plan. Detailed project report is a complete document for investment decision-making, approval, planning. Detailed project report is base-document for planning the project and implementing the project.

The process for DPR preparation involves following key steps:

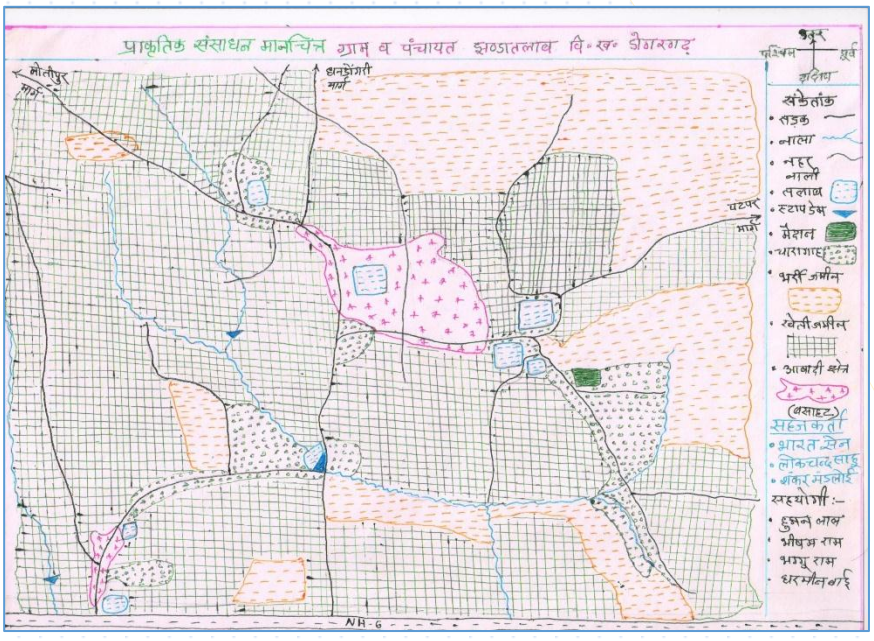
i. **Selection of technical agency:** an appropriate agency with technical expertise on watershed related works can be selected for detailed project report preparation.

ii. **Setting time frame and activities:** it's really good to complete on time and hence it's necessary to set time frame for each activities to complete the DPR preparation on time.

iii. **Initial area assessment:** this assessment will develop a basic idea of the targeted area, its physical, environmental and social features. Resource mapping for work.

iv. **Training and Campaigns:** once the area assessment is done, training and campaigns targeted at relevant stakeholders like PRIs, Mates and Technical Assistants were conducted. The training include natural resource management based participatory planning with a particular focus on MGNREGS.

v. **Resource mapping:** resource mapping is not a new strategy or process. It has been in use for many years in varying forms. Community resource mapping is sometimes referred to as asset mapping or environmental scanning. Resource mapping in the target Panchayat will help to map existing natural resources in a particular area which were significant from the perspective of natural resource management.



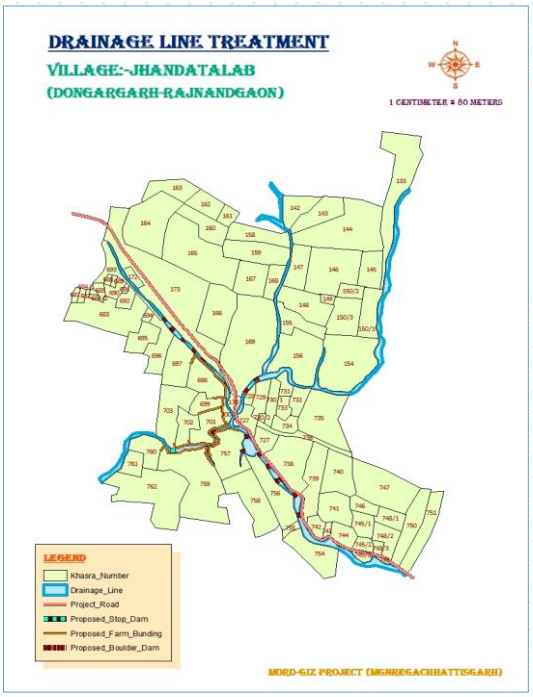
vi. **Transect walk:** this is a systematic walk along a defined path (transect) across the community or project area together with the local people to explore the water and natural resources by observing, asking, listening, looking and producing a transect diagram. This needs to be done at the target locations or site to understand the specific features of the drainage line by physical inspection.

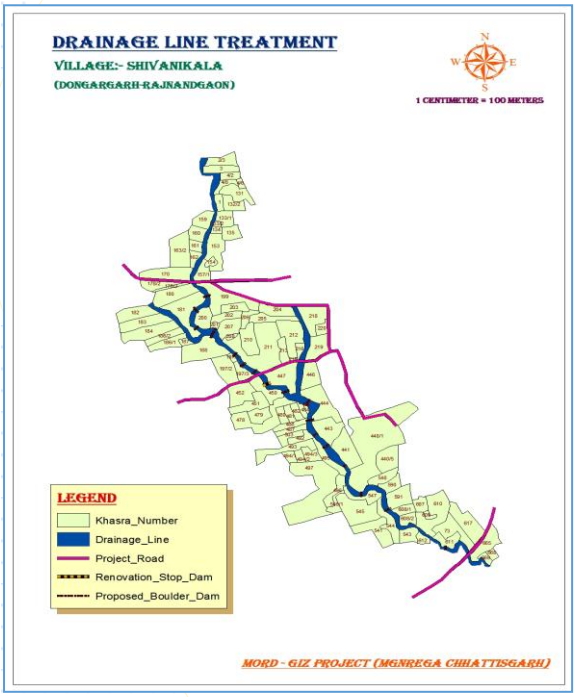
vii. **Measurement:** site measurement needs to be done in the presence of technical experts of watershed management to avoid over-expenditure and optimum utilization of available resources at community level.

viii. **Site Survey:** it can be done with modern and sophisticated instruments at the site of drainage line or other environmental benefits works. Site survey are inspections of an area where work is proposed, to gather information for a design or an estimate to complete the initial tasks required for an outdoor activity. It can determine a precise location, access, best orientation for the site and the location of obstacles.

ix. **Data collection:** relevant data needs to be collected from villagers and government departments like rainfall pattern, crop productivity in the area. Data collection can include- qualitative, quantitative, spatial, and non-spatial data.

x. **Estimate and drawings:** estimate and drawings of proposed structures were prepared after measurement and survey work was complete. The estimate will guide the possible cost of watershed projects/EB works planned in the Gram Panchayats.





xi. **Finalization of DPR:** complete detailed project reports includes comprehensive details related to socio-economic status of the area, design and estimates of new structures and benefits through them.

4.6. Sharing of DPR: Complete DPR needs to be technically reviewed and then approval from Gram Sabha is necessary for DPR sharing with Gram Panchayat, MGNREGA functionaries and mates. Brief timeline, budget and proposed works were discussed with them while sharing.

4.7. Hand holding support to the Gram Panchayats for prorating works with available budget and submission at Janpad Panchayat (Intermediate Panchayat):

Preparation and sharing of detailed project reports to Gram Panchayat itself is not sufficient, it requires continuous handholding support. Gram Panchayat also requires handholding support during following key tasks:

i. **Prioritizing works as per the available resources i.e. time, money and labour force.**

ii. **While submitting work proposals at Janpad level:** Gram Panchayats needs to be supported in getting land maps and Khasras from relevant offices and preparing proposals for new works.

4.8. Follow up for sanctioning of works: Continuous follow-up with the concerned line department at Block and District level is required till final approval of the works. This will ensure the prioritization of works and approval can be obtained for feasible & accessible works first.

4.9. Training of MATEs: Training of technical team in the field is essential and these MATEs will play key role in these EB works in Panchayats. Hence, it is suggested to train the MATEs & PRI members on the theoretical and practical knowledge about the works.

4.10. Technical support: PRI members and implementation team at field level needs technical support on following tasks:

i. Layout and site selection
ii. Determining whether manual or mechanical digging is required
iii. Measuring progress status of works: measurement tool kits can be availed for the tasks which will be kept safely in a public building.
iv. Labourers needs to be trained at work sites about getting bigger environmental benefits to them through these initiatives.
v. Onsite stock maintenance requirement
vi. Lease sites for material dumping
vii. Part evaluation, FTO and fund release: coordination meetings with Gram Panchayat, Janpad Panchayat and Zila Panchayat were required for the same. Part payment to the supplier can also ensure hassle free supply of materials as vendors got their payment on regular intervals.
viii. Shift wise work plan development: works can be conducted in multiple shifts to ensure timely completion. (i.e. 6 AM to 2 PM and 2 PM to 7 PM)
ix. Gender based work distribution: works should be distributed based on capacity of workers. For example: women workers should be allotted digging work while men workers can be allotted heavy & load carrying work for proper work distribution.
x. Placing appropriate mates at right places: MATEs needs to be placed based upon their expertise & interest for getting full performance.
xi. Scheduling of works: work should be scheduled properly with consideration of material availability, land type and environmental conditions.

4.11. Ensuring Transparency in the process: Transparency is the key for community engagements and developing confidence of the community. Transparency should be maintained through following process:

i. Material supply from multiple vendors
ii. Monthly review at higher level: regular review about the sanctioning of work, payment and evaluation process through regular field visits from officials at higher level and monthly review meeting at Panchayat level need to be ensured.
iii. Notice boards needs to be installed at worksites
iv. Communication through social media can be also beneficial for ensuring the transparency.

Example says: *WhatsApp group of key stakeholders & community members was created as 'ParyavaranPariyojana Gram' (Environment Project Village). This group has added officials at district and block levels, Technical Assistants, Gram Panchayat Sarpanch, Secretary, Mate and others. The key benefits of this group was:*

- *Daily work progress review on real-time*
- *Problems identification by community level*
- *Guidance, advice and immediate response received from concerned official & line department on real-time*
- *Work photographs were update in real-time and shared with all stakeholders very quickly*

4.12. Community level interventions for capacity building and stake holder sensitization: Engaging community and gaining their confidence through capacity building & sensitization is very important for any socio-economic developmental works. This can be done with participatory ways as listed below:

i. **Ground water data analysis**: this can includes knowledge sharing and awareness of community on the status of ground water level.
ii. **Training on climate change:** such training should be carried out at community level through participatory exercises. Outcomes of such exercise will help in planning process of Gram Panchayat which will reflect inclusion of more number of EB works.

The major points to be discussed in the training were:

- Process of building knowledge about the livelihood resources in the area.
- How to facilitate understanding of climate change and its manifestations for rural community.

- To build matrix of climate change induced weather variability and its effect on key livelihood activities.
- Process of assessing different development activities against climate change.
- How agro-forestry and trees can be useful in building community resilience against climate change.
- What are the information/data important for developing knowledge (exposure, sensitivity, adaptive capacity) of an area/village?
- Different tools to understand climate change related information at village level such as transect walk, Focus Group Discussion, Hard Mapping, and Seasonal Calendar.
- How to consolidate data for developing a climate smart GPDP.
- Steps and component of main streaming climate proofing initiatives into GPDP.

iii. **Participation of community in Gram Sabhas:** community in the project villages needs to be motivated for attending Gram Sabhas and raise their concerns about EB works.

iv. **Strengthening of SHGs:** SHG members in the villages needs to be motivated and strengthened to visit worksite and participate in the monitoring process.

v. **Participation of PRI members, Mate and farmers in the planning process:** this will help in ensuring their active involvement during the planning & implementation phase. Planning should ensure aspects related to ground water recharging and improving ratio of agricultural land & productivity.

vi. **Stakeholder sensitization:** stakeholder sensitization needs to be done on the issues of natural resources, environmental vulnerabilities and need for effective planning.

vii. **Explaining benefits of new structures to community:** works included in project proposal needs to be explained clearly to community in the language they were able to comprehend. This included rationale behind selection of structures and environmental, economic and social benefits through them. This can be done during various social or community level functions where more audience can be covered. This should be explained by the PRI members & local leaders so that community can relate themselves.

4.13. Gram Panchayat level interventions to sensitize and motivate towards undertaking environmental benefit works instead of construction works:

- Gram Panchayats needs to be sensitized to take more number of environmental benefit related works apart from construction works.
- Capacity of Gram Panchayats needs to be enhanced for taking watershed & environmental benefits related works. Which will increase the percentage of total works approved in DPR implemented by Gram Panchayat.
- Mates also need to be oriented at PRI meetings for increasing their confidence in taking up such works.
- PRI members should be oriented and motivated for increased transparency in works done by Gram Panchayats.

4.14. Coordination with government departments:

- Trainings should be organized for functionaries of MGNREGA at Gram Panchayat, Janpad Panchayat and Zila Panchayat level.
- Meeting with line departments for implementation of works above Rs. 20 Lakh
- Technical Officials at district and block levels were included in planning process so that their active involvement may be sought during the implementation phase.
- Glitches at departmental levels like delay in issuing land maps and khasras etc. were addressed with appropriate coordination.
- Works were appropriately allocated to Technical Assistants under MGNREGA to reduce the workload and maximize their effectiveness.
- Appropriate agencies were determined for works which were beyond sanctioned limits of Gram Panchayats which were Water Resource Department and Rural Engineering Services Department etc.

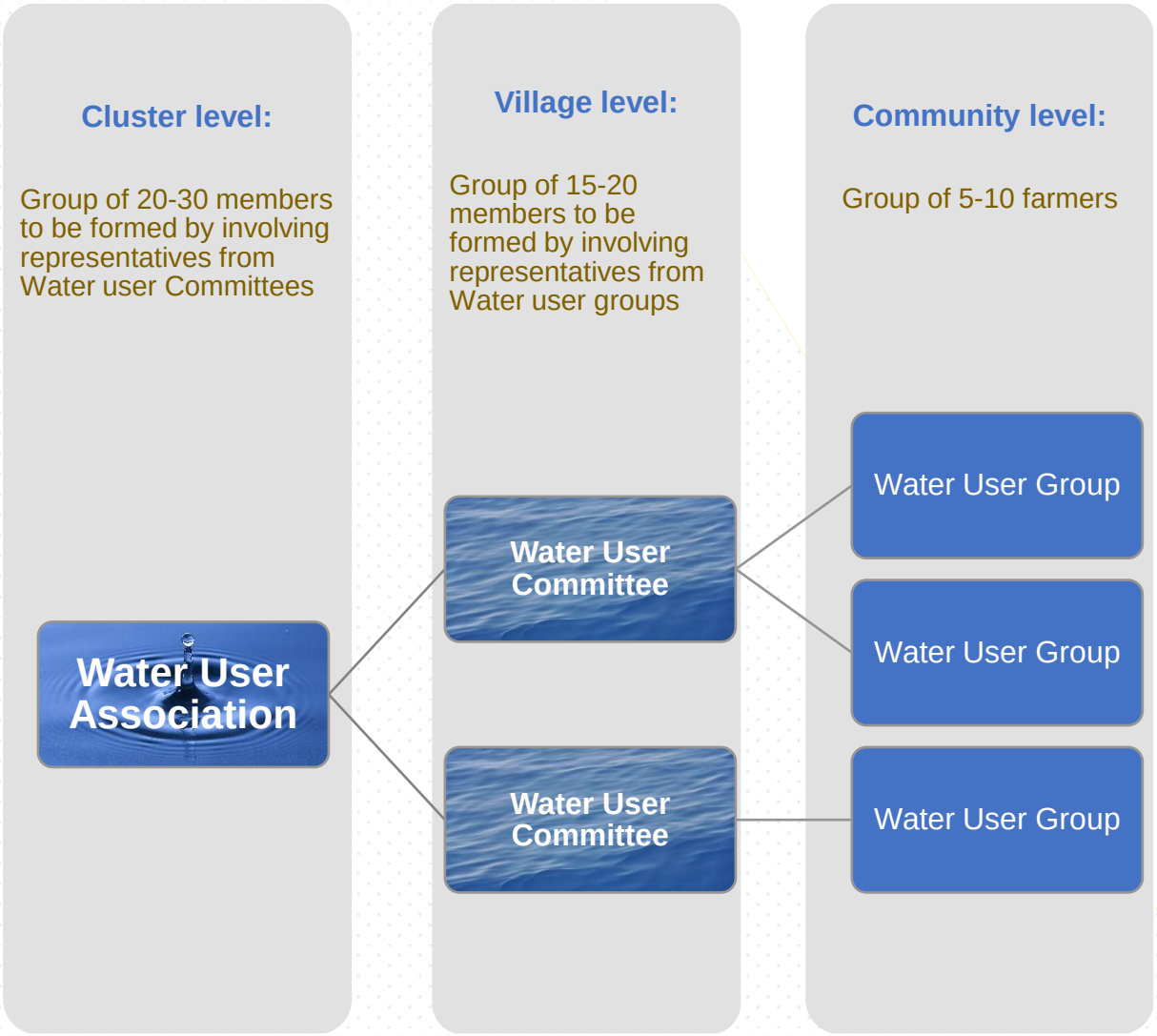
4.15. Networking and linkages with other departments and agencies:

Convergence with relevant departments, schemes and agencies will play major role in facilitating and covering additional requirements at local level. For example: Water pump connection and irrigation facilities can be availed through ‘Saur Sujala Scheme’ (CREDA & CG Govt.). Improved Seed can be availed through the Agriculture department etc.

5. Sustainability and Maintenance

Sustainability and maintenance of environmental benefit works cannot be sustained without community participation. The primary user will be the community and they are more connected with the projects and hence they will be the primary stakeholders for its success. Therefore community level sustainability and maintenance process should be followed by the user groups. The user group's process flow is as depicted below:

5.1. Water user group:



(Water user Association -> Water management committee -> Water user Group)

i. **Formation of user groups and their capacity building:** structure wise user groups need to be formed and they required proper capacity building and handholding support. List of members of these groups should be approved by Gram Sabha. They should be the members of the villages and their land should be connected to the watershed structures. They need to be capacitated time to time about their roles and responsibilities. From the beginning they should be well explained through the satellite imagery during developing resource maps and they need to be involved in field visits.

ii. **Monitoring of project sites:** From the beginning they need to be involved in monitoring of work progress near to their farm land. So that they will ensure quality work and motivated for its sustainability through participatory ways.

iii. **Maintenance:** There should be a formal agreements between members of user groups and Panchayats which mentioned clauses of handing over process and regular maintenance of new structures as per their capacities during emergency situation before taking help from Panchayats or line departments.

iv. **Water distribution Plan:** equal distribution of water among farmers needs to be ensured through common agreement. All the farmers should get water during the time of need without any discrepancies.

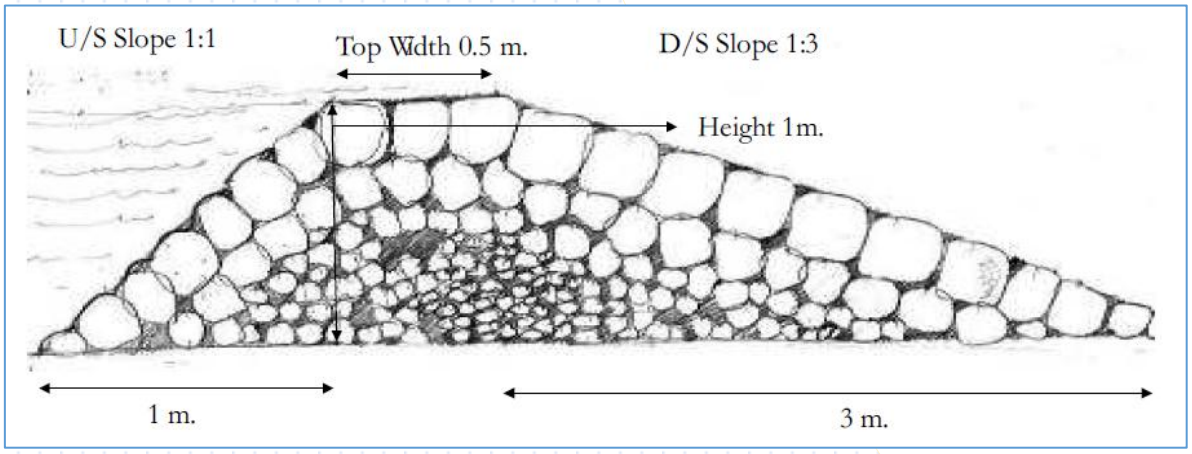
5.2. Formation of cadre of Environment Volunteers: this cadre will be formed in the target areas to spread the awareness on environment related issues at Gram Panchayat level. Environment Volunteers ensure the task of keeping track of environment related changes and effects in their areas in systematic manner. This will also ensure the sustainability and awareness about the existing status of projects.

5.3. Approval of works through Gram Sabhas: all works should be approved in Gram Sabhas in the presence of all stakeholders. All the rules and terms of EB work implementation, monitoring and maintenance should be discussed and commonly agreed by the community.

6. Structures

6.1. Loose Boulder Checks: The main aim of constructing loose boulder checks is to reduce the velocity of water flowing through the drainage line. Loose boulder structures are effective in reducing the erosion of soil on the upper side of the catchment area. The velocity of flowing rainwater can be reduced by constructing the bunds made up of rocks. This type of structure helps in reducing the erosion of soil by blocking the way of water and allowing it to percolate in the soil.

Cross section of a boulder check: *In the construction of a boulder check, bigger boulders are placed outside and smaller ones inside.*



Source: National Rural Employment Guarantee Act- Watershed Works Manual, MoRD, GoI

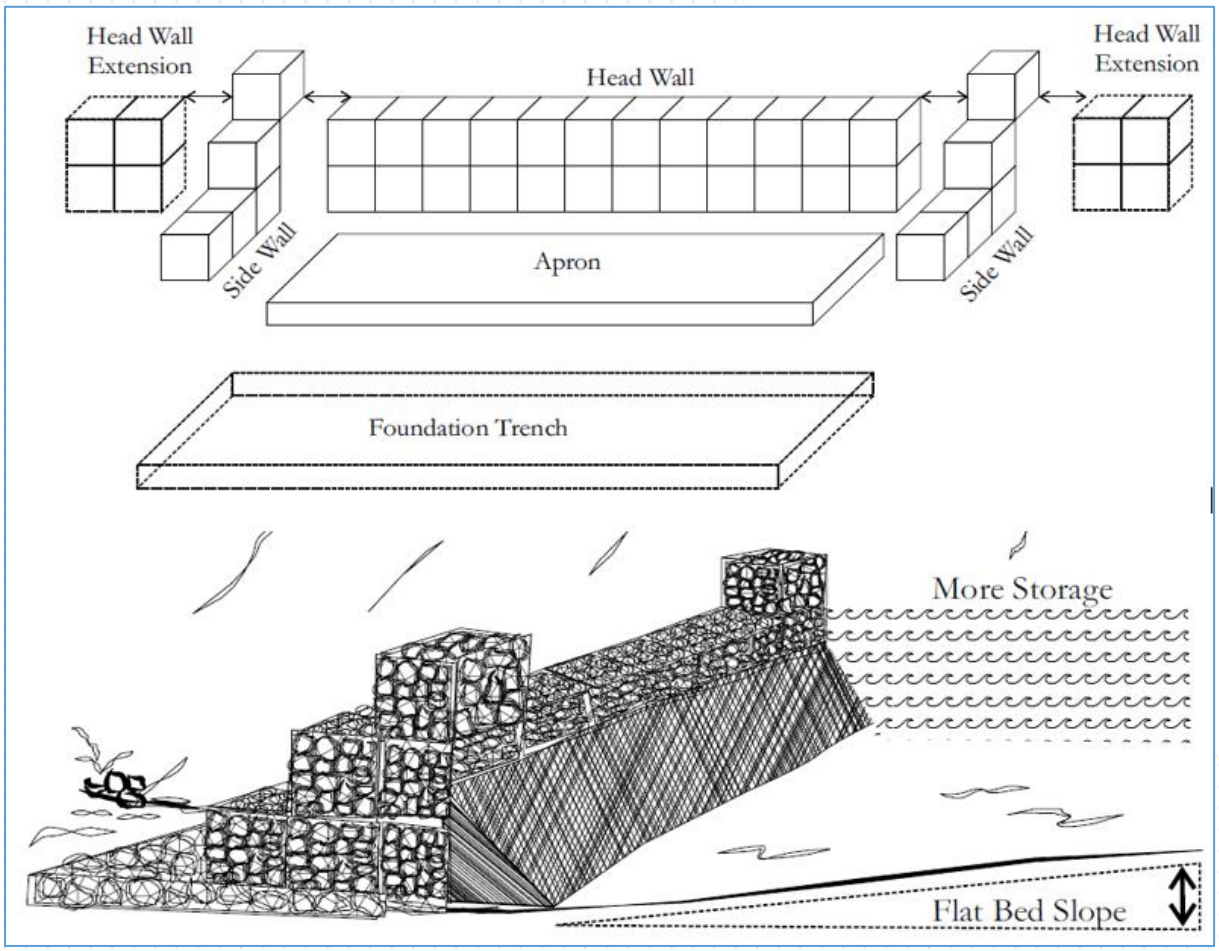
Source: Rajnandgaon EB works, SAMARTHAN- Chhattisgarh

6.2. Gabion Structure: Gabion structures are rock and wire dams constructed across drainage lines with a catchment area of 50-500 ha. They are also constructed to reinforce

highly erodible stream embankments. Gabions are mechanical structures constructed on sites where due to high velocity of water loose boulder structures are not feasible because of their low stability. They are constructed in the middle reaches of a watershed area and avoided at areas like nala turnings. Gabions are effective in reducing the flow of water leading to water as well as soil conservation. Gabions are constructed by tangling rough stones in the iron net. Their height is kept restricted to 1 m, 1.5 m and 2 m on the basis of the depth of the nala.

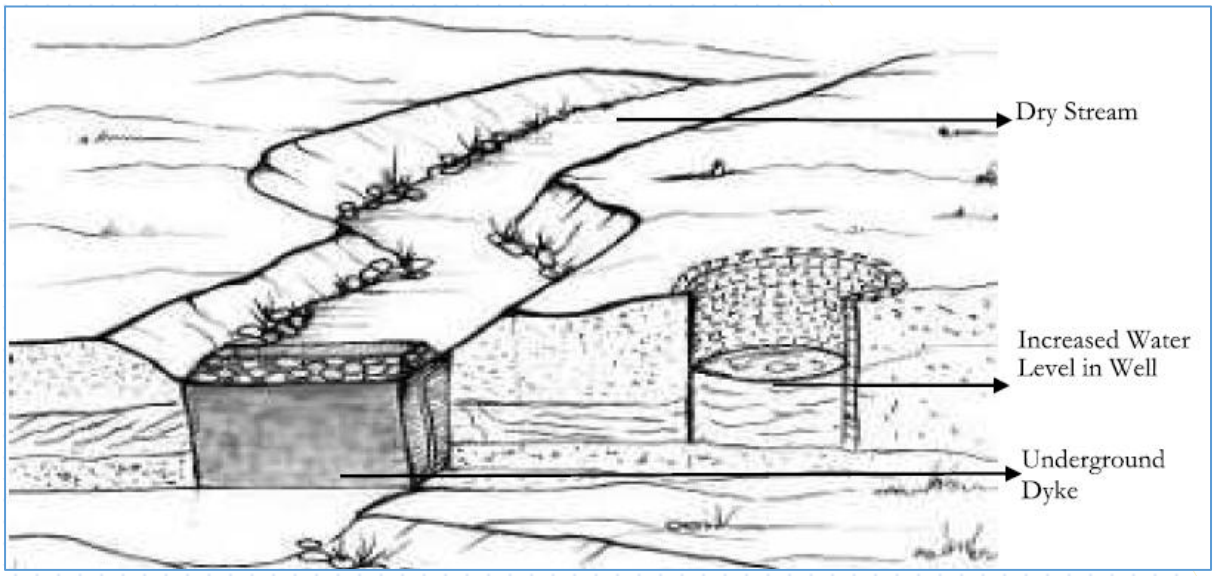
Location, design and different parts of Gabion Structure: *Gabion structures should be made where the embankments of the drainage line are high. Gabion structures should be made where the bed slope of the drainage line is low. There are two ways of developing Gabion structure:*

i. To make the structure as per the dimensions of the design and wrap it with wire mesh on all sides except the bottom. This wrap is partially anchored under the bottom.
ii. To cage the boulders in rectangular boxes. The structure would be made up of several such boxes tied together. In such a structure the wire mesh not only provides a covering shell, it also gives horizontal and vertical reinforcements within the structure.



Source: National Rural Employment Guarantee Act- Watershed Works Manual, MoRD, GoI

6.3. Underground Dykes: An underground dyke is a dam constructed on sub-surface flows. This stops the flow of ground water and diverts it to nearby wells, thus increasing their water level. Dykes are earthen dams that obstruct the flow of this sub-surface water and divert them to nearby wells and tube-wells. Dykes do not submerge any land. Nor is the water stopped by them subject to evaporation. Underground dykes are most suited to hard rock, black cotton soil areas such as the Deccan Traps in Chhattisgarh and other central Indian regions.



Source: National Rural Employment Guarantee Act- Watershed Works Manual, MoRD, GoI

6.4. Stop Dams: Stop dams are usually constructed for water conservation at the lowest part of the drainage line where slope is minimum. This in turn leads to increase in water table and use of water for other purposes like irrigation, cattle drinking, fishery etc. Stop dams need to be selected on the basis of drainage line flow (10 months in a year), nearness

of major agricultural land, slope of the nala (around 2 to 5%), potential of the bank of nala and ratio of width and depth of nala. Survey of U section and L section of the nala needs to be done to determine the height and water storage capacities.

6.5. Stop Dams cum Rapata: Stop dam cum rapata serves the dual purpose of stop dam as well as a small passage or way from where transportation can happen. A rapata or causeway is a structure that allows water to flow under a road, trail or other obstruction from one side to the other side. Rapatas are commonly used both as cross-drains for ditch relief and to pass water under a road at natural drainage and stream crossings. Stop dam cum rapata has been proved important in protecting stream health while reducing expensive erosion and structural damage.

6.6. Gully Plug: Gully plugs, also called check dams, are mainly built to prevent soil erosion and to settle sediments and pollutants. Furthermore, it is possible to keep soil moisture due to infiltration. Depending on the topography, amount of precipitation, material and financial resources available, there are several methods to construct a gully plug. They have to be inspected regularly and any damages must be repaired. A check dam (also called gully plug) is a small, temporary or permanent dam constructed across a drainage ditch, swale, or channel to lower the speed of concentrated flows for a certain design range of storm events. A check dam can be built from wood logs, stone, pea gravel-filled sandbags or bricks and cement. Reduced runoff speed reduces erosion and gully erosion in the channel and allows sediments and other pollutants to settle out. Check dams are inexpensive and easy to install.

6.7. Recharge Pit: recharge pits are generally series of square holes developed inside the drainage lines to recharge ground water through storage of rain water or running water in the drainage lines. This will also check the water flow and control soil erosion. But this is a temporary structure in the drainage lines.

7. Potential Challenges

There are some potential challenges which can be addressed while planning for EB works:

- Encroachment drainage land by the farmer for the agriculture work- it creates difficulties to match existing land of village with its satellite Imagery. It also provide an opportunity to Gram sabha to remove the encroachment of the land of drainage line.
- Khasra Number of the drainage line sometimes not clear and Gram Panchayat did not have secondary data of its natural resources.
- Lack of maintenance of the structure built earlier in same drainage line may create some challenges
- Water resource department have the right of the maintenance of these structure so GPs may take any interest of its management and maintenance.
- Farmer may also damage the drainage line near by their field area
- Lack of availability of local resource like stone, sand bolder etc.
- Lack of technical expertise at Gram Panchayat level for the maintenance of the structures
- Moving of raw materials to sites due to farm season
- Lack of interest of the line department for the convergence of different government scheme for the sustainable agriculture development through electricity, solar connection around drainage line and plantation etc.

8. Way Forward

This SOP document development introduces a new phase in Environmental Benefit works planning and implementation under MGNREGA. This reference document needs to be understood, internalized and owned by all the key stakeholders. Adequate time and resources has been invested in planning and implementation through pilot projects. This document will help PRIs, govt. officials and NGOs in planning and implementation of environmental benefits works through participatory approach for effective implementation of MGNREGA works. While developing action plans or activity planning under environmental benefit works, it is very essential to review the current situation, available resources and opportunity in the Gram Panchayats. The successful transformation of the SoP document is the joint responsibility of all stakeholders working on environmental benefit works including community members, PRI representatives, line department, NGOs, technical agencies, MATEs and ground staffs. This will help in achieving the vision and mission to transform the lives of the community members with sustainable environmental benefit works in the villages.

9. Annexures

Annexure-1: Sample AS, TS and Filled MGNREGA formats

AS-GIZ

पलानडुर

Credible Chhattisgarh
विश्वसनीय छत्तीसगढ़

कार्यालय जिला पंचायत राजनांदगांव

महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारण्टी योजना

Phone No. 07744-224060, Fax No. 07744-220140, email : zp-rjn.cg@nic.in

—:: प्रशासकीय स्वीकृति आदेश ::—

क्र/ 05 /जि.प./MGNREGA/प्रशा.स्वी./2016–17 राजनांदगांव, दिनांक 01 /04/2017

महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी योजना के तहत जनपद पंचायत डोंगरगढ़ क्षेत्रान्तर्गत पंजीकृत श्रमिको द्वारा रोजगार की मांग करने पर रोजगार उपलब्ध कराने हेतु अनुविभागीय अधिकारी ग्रामीण यांत्रिकी सेवा उप संभाग डोंगरगढ़ द्वारा पत्र क्रं. 1274/मनरेगा/ज.पं./2016–17 दिनांक 22-03-17 ..... द्वारा प्रस्तुत प्रस्ताव में कलेक्टर महोदय के अनुमोदन पश्चात कालम नं. 2 में उल्लेखित कार्य एवं कालम नं. 18 में अंकित राशि की प्रशासकीय स्वीकृति निम्नांकित शर्तो के आधार में प्रदान की जाती है।

शर्तें :–

1 महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम के अधीन भारत सरकार एवं छत्तीसगढ़ शासन द्वारा निर्धारित मापदण्ड एवं निर्देशों का पालन करना अनिवार्य होगा।

2 राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम के प्रावधानो का कठोरता पूर्वक पालन किया जावे।

3 कार्य में मजदूरी के रूप में प्रति व्यक्ति प्रतिदिन रू. 167.00 (एक सौ सडसठ रूपये मात्र) अथवा शासन द्वारा अद्यतन संशोधित दर एम.जी.एन.आर.ई.जी.ए. पर बैंक/डाकघरो के माध्यम से भुगतान किया जावेगा।

4 प्रस्तावित कार्य वार्षिक कार्ययोजना में सम्मिलित होना चाहिए।

5 मस्टररोल में जॉबकार्ड का नम्बर अनिवार्य रूप से अंकित करें, मस्टररोल जॉबकार्ड अंकित न करना अपराध है।

6 प्रस्तावित स्थल या ख.नं./रकबा पर ही कार्य किया जावे।

7 प्रशासकीय स्वीकृति प्रदाय किये गये प्राक्कलन अनुसार ही कार्य किया जाना सुनिश्चित करे एवं कार्य प्रारंभ करने के पूर्व विधिवत ले आउट दिया जावे तथा मजदूरों को कार्य के सम्बन्ध में तथा शासन द्वारा प्रचलित मजदूरी दर एवं कार्य की मात्रा के संबंध में विस्तृत जानकारी दी जाए।

8 महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारटी अधिनियम के अंतर्गत मांग प्राप्त होने पर ही कार्य प्रारंभ किया जाए।

9 कार्य प्रारंभ करने के पूर्व ग्राम में अनिवार्य रूप से मुनादी करवाई जाए।

10 कार्य प्रारंभ की सूचना लिखित में संबंधित आवेदकों को देना होगा, साथ ही ग्राम पंचायत भवन एवं अन्य सार्वजनिक स्थलों पर भी इसकी सूचना प्रकाशित किया जावेगा।

11 कार्यो मे कार्यक्रम अधिकारी द्वारा उक्त कार्य हेतु जारी मस्टररोल का ही प्रयोग किया जाए। मस्टररोल की एक प्रति ग्राम पंचायत एवं जनपद पंचायत में अनिवार्यतः दी जाए। विभाग द्वारा मस्टररोल में नियोजित मजदूर की डाटा एन्ट्री मुल्यांकन/सत्यापन कर भुगतान किया जावे।

12 मजदूरों को 14 दिन के भीतर या प्रति सप्ताह मजदूरी भुगतान करना अनिवार्य है।

13 कार्य की मासिक/साप्ताहिक प्रगति प्रतिवेदन निर्धारित प्रारूप में जनपद पंचायत कार्यालय में अनिवार्य जमा करना होगा।

14 ग्राम पंचायत मे उपलब्ध प्रशिक्षित मेट से ही कार्य लिया जावे।

15 कार्य प्रारंभ करने के पूर्व संबंधित एजेंसी नक्शा, खसरा नस्ती मे अनिवार्य रूप से लगावें।

16 प्रति सप्ताह अनिवार्य रूप से प्रत्येक कार्य का मूल्यांकन कर मजदूरी भुगतान बैंक/डाकघरो के माध्यम से कराया जावे।

17 स्वीकृत कार्य मे अनिवार्य रूप से परिवार रोजगार कार्डधारी के सदस्यो को ही रोजगार प्रदान किया जाए। ग्रामीण पंजीकृत मजदूरो की मांग पर ही कार्य प्रारंभ किया जावे।

18 कार्य स्थल पर आवश्यक सुविधाए जैसे– 1. पेय जल 2 प्राथमोपचार के लिए दवाई 3 कार्य स्थल पर छाया की व्यवस्था 4. कार्य का सूचना बोर्ड, जिसमें कार्य की स्वीकृत लागत प्रारंभ दिनॉक, एजेन्सी का नाम, उपयंत्री का नाम लिखा हो।

19 कार्य स्थल पर रखे जाने वाले सहपत्र :– 1.निरीक्षण पंजी,2. पक्का मस्टर रोल, 3. प्रशासकीय स्वीकृति आदेश,4. तकनीकि स्वीकृति आदेश, 5.निरीक्षण पत्रक.

20 स्वीकृत मजदूरी घटक, सामाग्री घटक, एवं कुल स्वीकृत राशि से अधिक राशि व्यय होने की स्थिति मे व्यय नही किया जावे। यदि निर्देश का पालन नहीं करने पर व्ययकर्ता की व्यक्तिगत जिम्मेदारी होगी। अन्यथा इस हेतु निर्माण एजेंसी जिम्मेदार होगी।

21 निर्माण कार्य स्वीकृति हेतु भू– अर्जन का कोई प्रावधान नही है। अतएव स्वीकृत निर्माण कार्य शासकीय भूमि पर ही कराया जावे।

22 प्रत्येक निर्माण कार्य कराते समय मजदूर को देय मजदूरी कुल कितना कार्य किया जाना है कि स्पष्ट जानकारी दी जावे।

23 प्रत्येक निर्माण कार्य पर निर्धारित मापदंडो सहित सूचना फलक (बोर्ड) प्रभावी तौर पर प्रदर्शित किया जावे जिसमें निर्माण कार्य के प्राक्कलन की सम्पूर्ण गोश्वारा प्रचलित हिन्दी भाषा में अंकित होना चाहिए।

24 निर्माण कार्य मे सूचना के अधिकार के सभी निर्देशो का कडाई से पालन किया जावे।

25 कार्य स्वीकृत निर्धारित प्राक्कलन एवं मापदण्ड के अनुसार ही कराया जावे।

26 कार्य ठेकेदारी प्रथा से कराया जाना पूर्णतः वर्जित है। अन्यथा महात्मा गांधी नरेगा अधिनियम के प्रावधान के अनुसार दण्ड के भागीदारी होगें।

27 कार्य तत्काल प्रारंभ कर समय सीमा के भीतर पूर्ण करावे।

28 कार्य पूर्ण होने पर निर्धारित प्रपत्र में उपयोगिता व पूर्णता प्रमाण पत्र भेजा जावे।

29 कार्य प्रारंभ करने से पूर्व यह सुनिश्चित किया जावे कि कार्य प्रथम बार प्रस्तावित है एवं उपरोक्त स्वीकृत कार्य पूर्व में अन्य किसी एजेंसी/योजनाओ से स्वीकृत/निर्गित होने की स्थिति में निरस्त कराने का प्रस्ताव तत्काल इस कार्यालय में भेजे। यह संबंधित एजेंसी की जिम्मेदारी होगी।

30 वन भूमि होने पर समक्ष अधिकारी से अनुमति प्राप्त करने के उपरांत ही स्वीकृत कार्य को प्रारंभ कराया जावे। यथा संभव मजदूरी सामाग्री अनुपात 60:40 रखने हेतु गिट्टी तुड़ाई आदि विभागीय रूप से कराया जावे।

31 स्वीकृत कार्य का लेखा संधारण संबंधित कार्यकारी पचायत/एजेंसी द्वारा रखा जावेगा। योजना अथवा जिस प्रयोजन हेतु अनुदान दिया जा रहा है, उसका उपयोग भी उसी प्रायोजन के लिये किया जावेगा।

32 स्वीकृत कार्य मे शासन के मागदर्शी सिद्धांतो के अनुरूप प्रत्येक किश्त के पश्चात उपयोगिता प्रमाणित होने के उपरांत ही आगामी किश्त जारी किया जावेगा। एक मुश्त राशि किसी भी परिस्थिति में जारी नही किया जावेगा।

33 स्वीकृत कार्य की राशि का उपयोगिता प्रमाण –पत्र तथा मासिक प्रगति प्रतिवेदन निर्धारित प्रपत्र में वित्तीय एवं भौतिक सहित प्रतिमाह इस अनिवार्यतः भेजे।

34 महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी योजना के लिये शासन द्वारा अनुमादित टॉस्क दर पर ही कार्य स्वीकृत एवं संचालित की जाए।

35 किसी भी कार्य में मस्टर रोल पर फर्जी नाम पाया गया तो फर्जी हाजिरी भरने वाले कार्य एजेन्सी के विरूद्ध पुलिस में आपराधिक मामला दर्ज किया जावेगा।

36 रोलर उपयोग कार्य का पंचनामा अनिवार्यतः तैयार कर जनपद पचांयत में प्रस्तुत करे। पचनामा में पंचायत क्षेत्र मे कार्यरत कम से कम दो शासकीय सेवक सम्मिलित हो।

37 मजदूरी भुगतान के समय परिवार रोजगार कार्ड एवं रोजगार प्रदाय पंजी B-9 में सभी प्रविष्टिया करना अनिवार्य है।

38 पक्के कार्य (पुलिया, निर्मलाघाट, पिचिंग, इनलेट, आऊटलेट कार्य) में मजदूरी, सामाग्री का अनुपात 60:40 पर सामाग्री पर होने वाला व्यय किसी भी स्थिति में 40 प्रतिशत से अधिक न हो। इस संबध में क्रियान्वयन एजेंसी सुनिश्चित करे।

39 उक्त स्वीकृत कार्यो को प्रारंभ करने पूर्व में हुये कार्य की अद्यतन स्थिति, स्थल का फोटोग्राफस लिया जावे तथा उक्त स्वीकृत कार्यो को पूर्ण कराने के पश्चात् भी फोटोग्राफस लिया जावे ताकि कार्य का सुस्पष्ट आंकलन संभव हो सके एवं कार्यो का सतत् निरीक्षण भी किया जावे। कार्य के तीनो स्तर के फोटोग्राफस नस्ती में संधारित एवं एम.आई.एस. पर दर्ज किया जावे तथा एक प्रति जिला पंचायत में उपलब्ध कराया जावे।

40 स्वीकृत कार्य प्रधानमंत्री ग्राम सड़क योजनांतग्रत स्वीकृत/कार्य योजना में शामिल होने पर कार्य प्रारंभ नही किया जावे। प्रधानमंत्री ग्राम सड़क योजना के कार्य योजना से मिलान/परीक्षण का दायित्व संबधित कार्य पालन अभियंता/कार्यक्रम अधिकारी का होगा।

41 सामाग्री की राशि का भुगतान शत् प्रतिशत् बैंक खातो के माध्यम से होगा। जिसकी एम.आई.एस. डाटा एन्ट्री में सामाग्री प्रदायकर्ता का खाता का उल्लेख किया जावे।

42 प्रति सप्ताह मस्टररोल की एम.आई.एस. की डाटा एन्ट्री कार्य किया जावे, मजदूरी राशि बैंक/डाकघरो में जमा किया जावे तथा सप्ताहंत में मस्टररौल बंद हो नही है का प्रमाण पत्र भी क्रियान्वयन एजेंसी द्वारा उपलब्ध कराया जावे।

43 स्वीकृत कार्य स्वीकृति से पूर्व निर्माण नही किया गया है स्वीकृत कार्य पहुंच मार्ग कार्य, विपरीत दिशा से पूर्व में स्वीकृत नही है, कार्य पूर्व में निरस्त कार्यो में

44 सामाग्री मद पर स्वीकृत राशि से अधिक का कार्य कराये जाने की स्थिति में संबंधित क्रियान्वयन एजेंसी के संबंधित अधिकारी के विरूद्ध अनुशासनात्मक कार्यवाही किया जावे तथा कियान्वयन एजेंसी ग्राम पंचायत होने की स्थिति में सरपंच के विरूद्ध धारा 40 की कार्यवाही की जावेगी।

45 स्वीकृत तालाब गहरीकरण के कार्य में पचरी निर्माण का कार्य उसी परिस्थिति में किया जावे। जब उक्त तालाब में पर्याप्त पचरी की व्यवस्था न हो।

46 पचरी निर्माण का कार्य तालाब गहरीकरण पश्चात् कराया जावे।

47 उपरोक्तानुसार स्वीकृत कार्यो में से जो कार्य कार्ययोजना में सम्मिलित नही है। उन्हे वर्ष 2015–16 के कार्य योजना में अवश्य सम्मिलित कर लिया जावे।(चुंकि उपरोक्त कार्य से संबंधित ग्राम पंचायतो में किसी प्रकार का रोजगार मूलक कार्य नही होने के कारण स्वीकृत किया गया है।)

48 इस आदेश से स्वीकृत कार्य यदि पूर्व में महात्मा गाधी नरेगा से स्वीकृत या किसी अन्य मद से स्वीकृत हो या निर्माण होने की स्थिति में वर्तमान स्वीकृत कार्य नही किया जावे। परंतु फिर भी निर्माण एजेंसी निर्माण कार्य कराता है, तो इसके लिये जिम्मेदार निर्माण एजेंसी स्वयं जिम्मेदार होगे।

49 स्वीकृत कार्य मे क्रियान्वयन एजेंसी के विरूद्ध भविष्य में किसी प्रकार की शिकायत प्राप्त होता है एवं जांच में किसी प्रकार की अनियमितता प्रमाणित होने की दशा में स्वीकृत संपूर्ण राशि भू – राजस्व की भांति निर्माण एजेंसी से वसूली की कार्यवाही की जावेगी।

50 स्वीकृत कार्य के लिये तकनीकी मार्गदर्शन, अनुश्रवण एवं मूल्यांकन हेतु संबंधित तकनीकी अधिकारी व्यक्तिशः जिम्मेदार होंगे।

51 सार्वजनिक परिसम्पत्तियों के लिए उपभोक्ता शुल्क निर्धारित की जावे। ताकि मूल एवं संधारित लागत (O&M Cost) की भरपाई हो सके।

52 योजना की आबंटित राशि अन्य योजनाओ में व्यय न किया जावे।

53 कार्य शासकीय भूमि पर सम्पादित किये जाये। यदि निजी भूमि में कार्य किया जाना प्रस्तावित हो तो पहले भू.रा.संहिता 1959 के अंतर्गत खाते का अवत्यजन जा न किया।

54 योजना की मानिटरिंग योजना आयोग, राज्य स्तरीय संचालक समिति/जिला स्तरीय समिति/चयनित गैर सरकारी संस्था/ग्रामीण विकास विभाग द्वारा किया

55 योजना के उपरोक्त शर्तो तथा समय–समय पर जारी शासनादेशो का पालन किया जाना अनिवार्य होगा।

56 महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम 2005 की अनुसूची–1 के पैरा 9 में प्रावधान अनुसार वित्तीय वर्ष में ग्राम पंचायत स्तर पर मजदूरी सामाग्री अनुपात 60:40 संधारित किया जाना है।

57 तालाब गहरीकरण कार्य की स्वीकृति मुख्य कार्य, अधिकारी जनपद पंचायत द्वारा प्रस्तुत प्रमाण पत्र क आधार पर दिया गया है।

58 डबरी निर्माण कार्य/तालाबों के गहरीकरण कार्यो में कार्य प्रारंभ करने के पूर्व यह सुनिश्चित कर ले कि उक्त कार्यस्थल पर 03 वर्ष के भीतर मनरेगा से कार्य नहीं कराया गया है। यदि 03 वर्ष के भीरत कार्य स्वीकृत है, तो उसे स्वतः ही निरस्त माना जावेगा।

59 कार्य प्रारंभ करने के पूर्व ऋण पुस्तिका में खसरा नं. प्रमाणित किया जाना सुनिश्चित करे।

60 डब्ल्यू बी एम सड़क एवं गौठान समतलीकरण निर्माण कार्य प्रारंभ करने से पूर्व लीड चार्ट जिला पंचायत को प्रस्तुत करें।

61 विशेष परिस्थिति में एक हितग्राही के लिए इस अनुमत सीमा रूपये 3.00 लाख से अधिक लागत के कार्य होने पर राज्य कार्यालय से अनुमति लिया जाना आवश्यक होगा।

62 सूचना फलक हेतु मानक प्राक्कलन अनुसार 5600/– निर्धारित है, उसी के अनुसार उपयोग किया जाना सुनिश्चित करे।

क्र.	कार्य का नाम	जाति	ग्राम का नाम	ग्राम पंचायत	विकास खंड	विधान सभा	खसरा	रकबा (हे. में)	मात्रा	इकाई	तकनीकी स्वीकृति क्रमांक	तकनीकीस्वीकृति दिनांक	तकनीकी स्वीकृति राशि	प्रशासकीय स्वीकृत राशि (लाख में)			
														अकुशल हेतु	अर्द्धकुशल हेतु	सामग्री हेतु	योग
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
मुख्य कार्यपालन अधिकारी, जनपद पंचायत–डोंगरगढ़																	
1	स्टाप डेम निर्माण (संतोष साहू के खेत के पास)	–	जारवाही	सहसपुर	डोंगरगढ़	डोंगरगढ़	248	0.223	192	sqm	1619	15.03.17	12.100	1.986	0.000	10.114	12.100
2	स्टाप डेम निर्माण	–	हीरापुर	मक्काटोला	डोंगरगढ़	डोंगरगढ़	454	0.287	288	sqm	1628	20.03.17	16.740	2.885	0.000	13.652	16.537
3	स्टाप डेम–1 टेढ़ी नाला में (सखा राम के खेत के पास)	–	पलान्दुर	पलान्दुर	डोंगरगढ़	डोंगरगढ़	1041	0.660	336	sqm	1674	25.03.17	20.000	3.101	0.000	16.696	19.797
	योग – 03 कार्य												**48.840**	**7.972**	**0.000**	**40.462**	**48.434**

(कलेक्टर एवं जिला कार्यक्रम समन्वयक महोदय द्वारा अनुमोदित)

(अक्षरांक : अड़तालिस लाख तिरालिस हजार चार सौ मात्र)

मुख्य कार्यपालन अधिकारी
जिला पंचायत राजनांदगांव
राजनांदगांव, दिनांक 01/02/2017

पृ.क्र/66/जि.प./MGNREGA/प्रशा.स्वी./2016–17

प्रतिलिपि:–

1 माननीय सांसद, संसदीय क्षेत्र राजनांदगांव को सूचनार्थ।
2 माननीय विधायक, विधानसभा क्षेत्र डोंगरगढ़/डोंगरगांव को सूचनार्थ ।
3 माननीय अध्यक्ष, जिला पंचायत राजनांदगांव को सूचनार्थ ।
4 माननीय उपाध्यक्ष, जिला पंचायत राजनांदगांव को सूचनार्थ ।
5 माननीय सदस्य श्री/श्रीमति/कु. ..... जिला पंचायत राजनांदगांव को सूचनार्थ।
6 आयुक्त, महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारण्टी योजना, इन्द्रावती भवन नया मंत्रालय रायपुर को सूचनार्थ।
7 कलेक्टर, जिला राजनांदगांव को सूचनार्थ।
8 जिला जनसंपर्क अधिकारी, राजनांदगांव को सूचनार्थ। कृपया दैनिक समाचार पत्रों में निशुल्क प्रकाशित कराने का कष्ट करें।
9 कार्यपालन अभियंता, ग्रामीण यांत्रिकी सेवा राजनांदगांव, जिला राजनांदगांव को सूचनार्थ ।
10 क्रियान्वयन एजेन्सी जनपद पंचायत डोंगरगढ़ को सूचनार्थ। महात्मा गांधी रोजगार गारण्टी अधिनियम 2005 में उल्लेखित निर्देशों का पालन करें।
11 मुख्य कार्यपालन अधिकारी, जनपद पंचायत डोंगरगढ़ . को सूचनार्थ। महात्मा गांधी रोजगार गारण्टी अधिनियम 2005 में उल्लेखित निर्देशों का पालन करें।
12 अनुविभागीय अधिकारी, ग्रामीण यांत्रिकी सेवा, उप संभाग डोंगरगढ़ को सूचनार्थ।
13 सरपंच ग्राम पंचायत .....जनपद पंचायत डोंगरगढ़ को सूचनार्थ। पंचायत भवन के सूचना पटल में एक प्रति चस्पा करें।

मुख्य कार्यपालन अधिकारी
जिला पंचायत राजनांदगांव

पत्रक निर्माण कार्य कराते समय मजदूर को देय मजदूरी कुल कितना कार्य किया जाना है कि स्पष्ट जानकारी दी जावे।
निर्माण कार्य पर निर्धारित मापदंडो सहित सूचना फलक लगे

TS-GIZ

महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी योजना

कार्य स्वीकृत करने के लिये आवश्यक जानकारी

(प्रत्येक प्राक्कलन के साथ संलग्न किया जावे)

विकासखंड – छु डोंगरगढ

(1) प्रस्तावित कार्य का ना :–

(2) कार्य का प्रकार :– Stop dam - (1) देवी नाला मे

(3) ग्राम का नाम :– पला-32 सरवारम के खेत के पास

(4) ग्राम पंचायत का नाम :– पला-32

(5) विकासखंड का नाम :– डोंगरगढ

(6) विधानसभा का नाम :–

(7) कार्य की ईकाई :– मीटरः–

1. लंबाईः–
2. क्षेत्रफल/हे.:–
3. पौधारोपण का क्षेत्रफलः–
4. पाध का सख्याः–

(8) प्रस्तावित कार्य का औचित्यः–

(9) प्रस्तुत प्राक्कलन की राशिः–

(10) तकनीक अनुमोदन क्रमांक 1674 दिनांक 25/3/17 राशि 20.00

(11) कार्य पूर्ण होने की अनुमानित अव.....

(12) प्रस्तुत कार्य का प्राक्कलन के अनुसार विवरण –:.....

1. सामग्री पर–राशि रू. 168984=00 प्रतिशतः– 84%
2. अर्धकुशल पर– राशि रू. प्रतिशतः–
3. अकुशल परिश्रमिक पर राशि रू. 31011 0=00 प्रतिशतः– 16%
4. आकस्मिक– राशि रू.....प्रतिशत.....

योग– राशि रू. 199994=00 प्रतिशतः– 100 %

(13) कार्य संपादन से सृजित होने वाले कुल मानक दिवस की संख्या :.....

(14) प्राक्कलन के साथ निम्नांकित अभिलेख संलग्न है अथवा नहीं–

(अ) कार्य स्थल का नक्सा खसरा क्रं 1041 रकबा 0.66 hect.

(ब) ग्राम सभा/ग्राम पंचायत का प्रस्ताव क्रं 24 दिनांक 23/8/2016

(स) स्थल निरीक्षण प्रतिवेदन (फोटो चस्पा करें)

(द) सामग्री कय के संबंध में रूट चार्ट लगावें .....

(इ) प्रस्तावित कार्य योजना में शामिल है? हां/नहीं हां

कार्य योजना का कमांक .....वर्ष 2016-2017

(फ) निजी भूमि होने की स्थिति में संबंधित का पंजीकृत दानपत्र :.....

(15) कार्य में लाभान्वित हितग्राहियों की संख्याः–

	परिवार संख्या	व्यक्तिगत	
अजा.			
अ.ज.जा.			
अन्य			

मुख्य कार्यपालन अधिकारी
जनपद पंचायत–डोंगरगढ

अनुविभागीय अधिकारी,
जनपद पंचायत, डोंगरगढ

उपअभियंता
जनपद पंचायत, डोंगरगढ

	Detail Estimate of Proposed Stop Dam - 4 (Khasra No.)										
	Vill- Palandur	LAT. - 21° 12' 8 " N					GP- Palandur				
	Block- Dongargarh	LON. - 80° 53' 30" E					Distt. - Rajnandgaon				
	As per R.E.S.S.O.R on Dated 01-06-2015										
Sr.No.	Particulars	Unit	No	Length(m)	Width (m)	H/D (m)	Qty(Cum)	SOR item No	Rate(Rs /Unit)	Labour	Total Amount including labour(Rs)
1	Jungle Clearance removing shrubs whose dia not exceeding 30cm and disposing 50m from the site of construction	SQM	1	28	12		336				
							336	102	4.4	1478.4	1478.4
2	Excavation of foundation in hard soil including lift upto 1.5m and lead upto 30 meter and including filling watering and ramming of excavated earth as directed by Engineer Incharge	CUM									
	Weir		1	18	3.5	2.5	157.50				
	Extension Wall		2	2.5	2.7	3	40.50				
	U/S Side Wall		2	2.5	1.1	2	11.00				
	D/S Side Wall		2	3.5	1.1	2	15.40				
	Wing wall (U/S)		2	2	1.1	2	8.80				
	Wing wall (D/S)		2	2	1.1	2	8.80				
	Apron		1	18	3.5	0.6	37.80				
	Toe Wall		1	18	0.6	1.5	16.20				
							296.00				
	50% soft soil						148.00	301(a)	95.1	14074.80	14074.80
	50% Hard Murrum						148.00	301(b)	110.3	16324.40	16324.40
3	Providing and laying PCC in cement concrete 1:4:8 (1 cement:4 coarse sand:8 graded stone aggregates 40 mm nominal size) and curing complete,excluding cost of form work in trench	CUM									
	Weir		1	18	3.5	0.3	18.90				
	Extension Wall		2	2.5	2.7	0.3	4.05				
	U/S Side Wall		2	2.5	1.1	0.3	1.65				
	D/S Side Wall		2	3.5	1.1	0.3	2.31				
	Wing wall (U/S)		2	2	1.1	0.3	1.32				
	Wing wall (D/S)		2	2	1.1	0.3	1.32				
	Toe Wall		1	18	0.6	0.3	3.24				
	1:4:8 (C.C)						32.79	0413(c)	2227		73029.89
	Labour Component							414	498.8	16355.7	
	Material (Cum)										
	Cement		4.26								
	Coarse sand		15.41								
	Aggregates 40 mm		30.49								
4	Providing and laying in cement concrete 1:3:6 (1 cement:3 coarse sand:6 graded stone aggregates 20 mm nominal size) and curing complete,excluding cost of form work but excluding cost of reinforcement in foundation upto plinth level	CUM									
	Weir		1	18	3.3	2.5	148.5				
	Extension Wall		2	2.5	2.5	2.7	33.75				
	U/S Side Wall		2	2.5	0.9	2	9				
	D/S Side Wall		2	3.5	0.9	2	12.6				
	Wing wall (U/S)		2	2	0.9	2	7.2				
	Wing wall (D/S)		2	2	0.9	2	7.2				
							218.25	0413(b)+416(a)	2992		652894.9
	Labour Component							414	498.8	108863	
	Material (Cum)										
	Cement		34.92								
	Coarse sand		102.58								
	Aggregates 20 mm		198.61								

5	Providing and laying in cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregates 20 mm nominal size) and curing complete,excluding cost of form work above plinth level	CUM									
	Weir (Pillar)		1	18	3.2	1.8	103.68				
	Extension Wall		2	2.5	2.4	2.8	33.6				
	U/S Side Wall		2	2.5	0.8	2.3	9.2				
	D/S Side Wall		2	3.5	0.8	2.3	12.88				
	Wing wall (U/S)		2	2	0.8	2.3	7.36				
	Wing wall (D/S)		2	2	0.8	2.3	7.36				
	Apron		1	18	3.5	0.5	28.35				
	Toe Wall		1	18	0.5	2	17.55				
	Deduct Gate	Nos	4	1.5	3.2	1.8	34.56				
	Total						185.42	0413(a)+416(a)	3669		680250
	Labour Component						0.00	414	498.8	92487.5	
	Material (Cum)										
	Cement		44.50								
	Coarse sand		79.73								
	Aggregates 20 mm		157.61								
6	False work for R.C.C and P.C.C work in plinth and super Structure										
	Below Plinth Level										
	Weir	SQM	2	18		2.5	90				
	Extension Wall	SQM	4	2.5		3	30				
	Side Wall (U/S)	SQM	2	2.5		2	10				
	Side Wall (D/S)	SQM	2	3.5		2	14				
	Wing Wall (u/S)	SQM	3	2		2	12				
	Wing Wall (D/S)	SQM	3	2		2	12				
	Toe Wall	SQM	2	18		2	70.2				
	Total						238.2	430	211		50260.2
	Labour Component							431	60.2	14339.6	
	Above Plinth Level										
	Weir	SQM	2	18		1.8	64.80				
	Extension Wall	SQM	4	2.5		2.8	28.00				
	Side Wall (U/S)	SQM	2	3		2.3	13.80				
	Side Wall (D/S)	SQM	2	3.5		2.3	16.10				
	Wing Wall (U/S)	SQM	2	2		2.3	9.20				
	Wing Wall (D/S)	SQM	2	2		2.3	9.20				
	Total						141.10	428	292.9		41328.19
	Labour Component							429	88.1	12430.9	
7	MS BAR Total	Kg					1628	904(a)	61.2		99630.93
8	Providing Iron gates alongwith frame 8 mm plate size 1.5 * 2.1 mts double shutter										
	Total weight of Gate	KG	4	170			680.00	901	57.2		38896
	stone pitching	Sq. Mt.	4	6		5	120	1270 1270	5078 ~~700~~	20040 ~~16760~~	81048 ~~84000~~
	Sub Total								1776	276354	~~1752168~~ 1759214
	Lead								7	290094	218361
X	~~1.00% Water , Work Charges and Contingency Charges~~										~~19705~~
	Grand Total										~~1990234~~
							Say				~~1990234~~

1967577 2nc

S.No.	Perticulars	No.	Rate		Labour Amount	Material Amount	Total Amount
	Sub Total				290094	1677483	1967577
	mate	33	197			6501	6501
	Water man	33	167		5511		5511
	5.03% Increase in labour amount				14505		14505
	Sign Board					5700	5700
	sub total				310110	1689684	1999794
	Grand Total				**310110**	**1689684**	**1999794**
	Man Days	1857					
	Percentage %				**16**	**84**	**100**

:: तकनीकी स्वीकृति ::

तकनीकी स्वीकृति क्रमांक 1674 दिनांक 25/03/17

कार्य का नाम :- स्टापडेम निर्माण [illegible]

ग्राम [illegible] ग्राम पंचायत

विकास खंड डोंगरगढ़ योजना मनरेगा

के लिये रुपये 20.00 लाख अक्षरी बीस लाख रुपये प्राक्कलन पर तकनीकी स्वीकृति प्रदान की जाती है।

अनुविभागीय अधिकारी
ग्रा. यां. सेवा उप संभाग, डोंगरगढ़
जिला-राजनांदगांव (छ. ग.)

Lead Chart of Proposed Stop Dam Construction

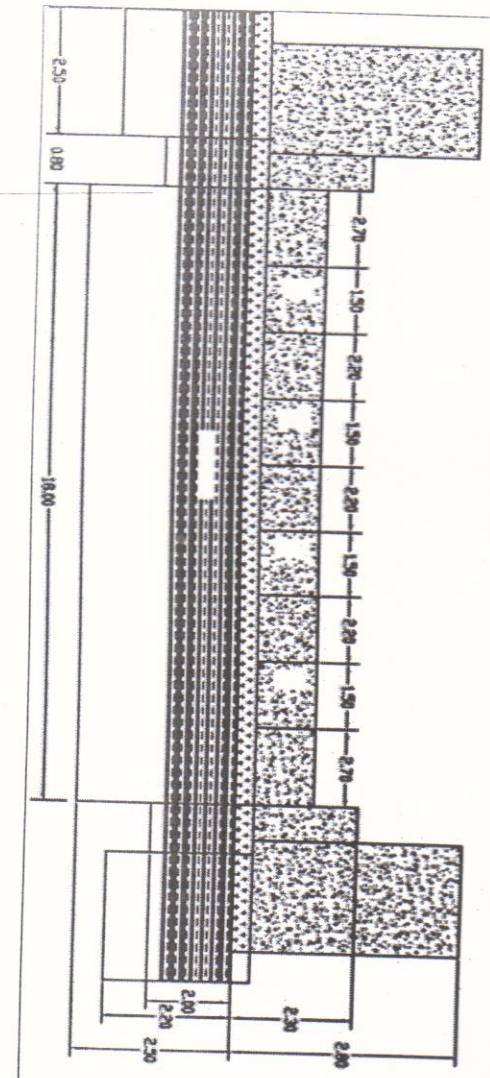
Vill- Palandur GP- Palandur

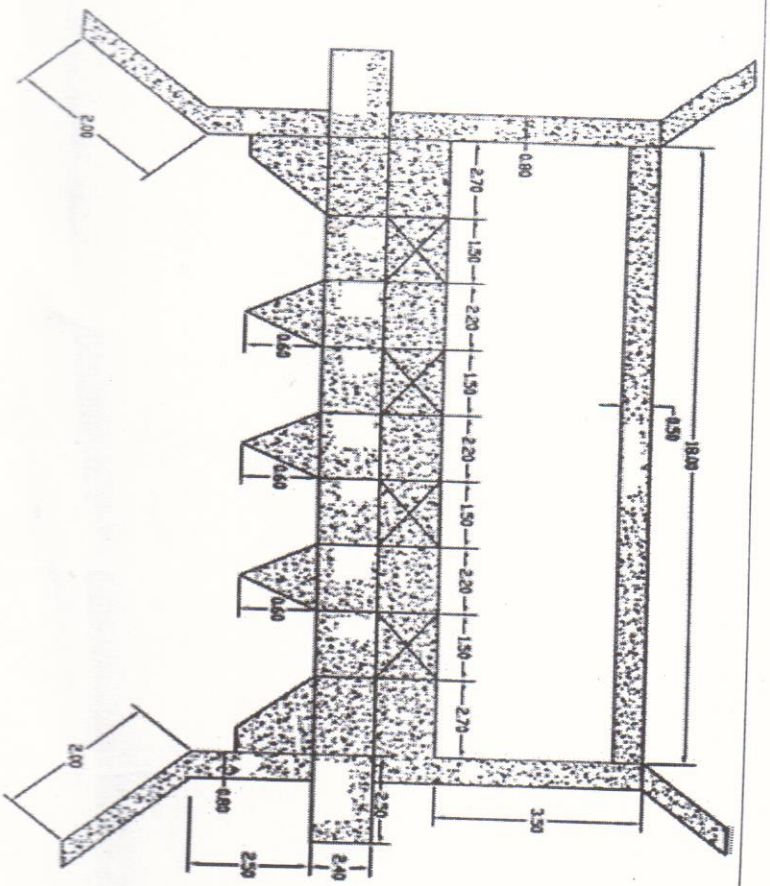
Block Dongargarh Distt. - Rajnadgaon

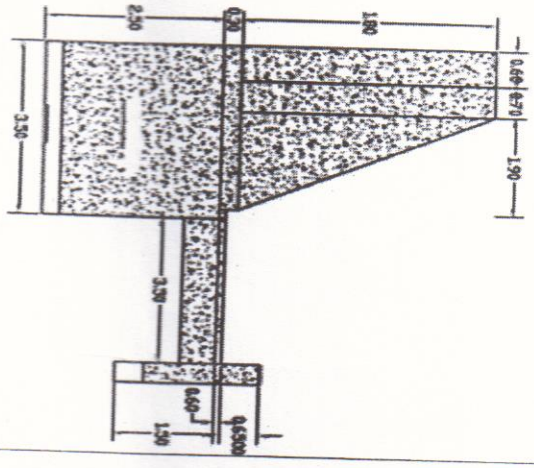
Lead Chart

S.N	Material	Qty	Distance K.M.	SOR	Rate	Unit	Cost(Rs)
1	Cement	83.68	20	1902 (j), 1903 (a),(b)	306.09	Cum	25615
2	Sand	197.72	20	1903 (j), 1903 (a),(b),1904(d)	306.09	Cum	60520
3	40 mm metal	30.49	20	1904 (j), 1903 (a),(b)	340.1	Cum	10371
4	20 mm Metal	356.21	20	1905 (j), 1903 (a),(b)	340.1	Cum	121149
5	MS Bar & Gate	2.31	20	1906 (j), 1903 (a),(b)	306.09	MT	706
	Total						218361

Vill- Palandur		GP- Palandur	
Block- Dongargarh		Distt. - Rajnadgaon	
Weir & Extension Wall Rafting	Length of Stop Dam (m)	23.00	Weight in Kg
	Foundation Width of Stop Dam (	3.50	
	Total Area of Stop Dam (Sqm)	80.50	
	Spacing of 12 mm Bar (m)	0.20	
	Length Required for 12mm Bar (m) for two layer	805.00	
	For Z section @ spacing of 0.6 m	134.17	
	Sub Total (M)	939.17	826.47
Side Walls Rafting	Length of Side Walls (m)	9.00	
	Foundation Width of Side Walls (	2.20	
	Total Area of Side Walls (sqm)	19.80	
	Spacing of 12 mm Bar (m)	0.20	
	Length Required for 12 mm Bar (m) for two layer	198.00	
	For Z section @ spacing of 0.6 m	33.00	
	Sub Total (M)	231.00	203.28
Wing Walls Rafting	Length of Wing Walls (m)	6.00	
	Foundation Width of Wing Walls	3.30	
	Total Area of Wing Walls (sqm)	19.80	
	Spacing of 12 mm Bar (m)	0.20	
	Length Required for 12 mm Bar (m) for two layer	198.00	
	For Z section @ spacing of 0.6 m	33.00	
	Sub Total (M)	231.00	203.28
Weir	Effective Length of Weir	18.00	
	Average Width Of Weir	2.05	
	Area of Weir	36.90	
	Spacing of 12 mm Bar (m)	0.40	
	Length of Bar Required (m)	92.25	
	Total Height of Dam	1.80	
	Vertical Spacing of Bars	0.37	
	No of Layers	4.86	
	Total Length Required of 12 mm	448.78	394.93
	Total	1849.95	1627.96


2.50
0.80
2.70
1.50
2.20
1.50
2.20
1.50
2.20
1.50
2.70
18.00
2.00
2.20
2.50
2.30
2.00


2.00
0.80
2.70
1.50
2.20
1.50
2.20
1.50
2.20
1.50
2.70
0.60
0.60
0.60
0.50
18.00
2.00
0.80
2.30
3.50
2.50
2.40

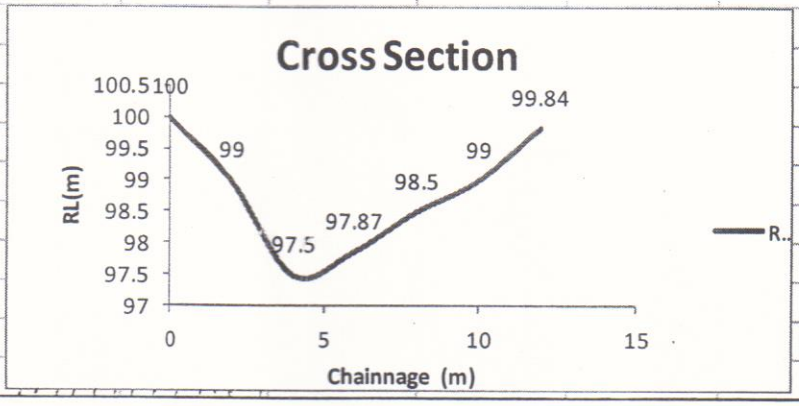

2.50
1.80
0.60
0.70
1.90
3.50
0.50
0.60
1.50
0.500

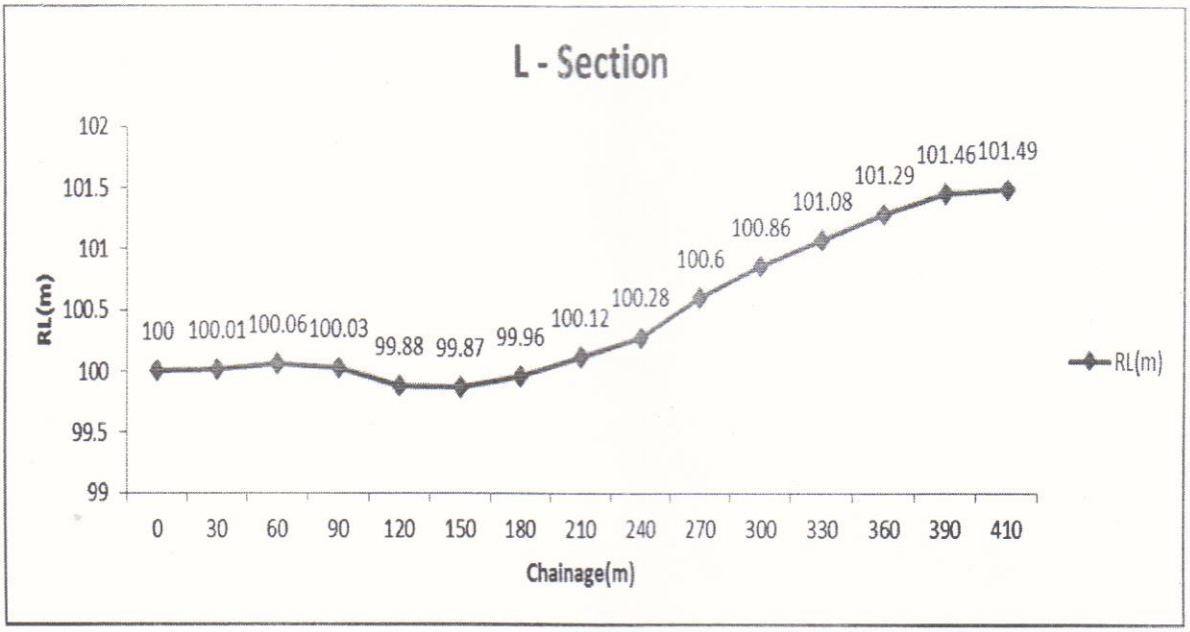
5.11 Details of Fourth Stop Dam

Vill- Palandur		GP- Palandur
Block-Dongargarh		Distt. - Rajnandgaon

Cross Section

chainge	RL
0	100.00
3	99.00
6	97.30
9	97.87
12	98.50
15	99.00
18	99.84
Depth	2.5




L - Section
RL(m)
102
101.5
101
100.5
100
99.5
99
100
100.01
100.06
100.03
99.88
99.87
99.96
100.12
100.28
100.6
100.86
101.08
101.29
101.46
101.49
0
30
60
90
120
150
180
210
240
270
300
330
360
390
410
Chainage(m)
RL(m)

STOP DAM- : HYDRAULIC DESIGEN DETAILS

A) HYDRAULIC DESIGN

a] Runoff coefficient calculation

1.	Type of Structure Stop Dam			
2.	Catchment area	A=	601.00	Ha.
	a. Area under cultivation	A1=	497.39	Ha.
	b. Area under pasture	A2=	11.00	Ha.
	c. Area under forest	A3=	0.00	Ha.
	d. Others	A4=	92.61	Ha.
3.	Runoff coefficient			
	a. Cultivated area	C1=	0.50	
	b. Pasture	C2=	0.30	
	c. forest	C3=	0.30	
	d. Others	C4 =	0.55	
	Weighted Runoff coefficient.	C=	0.50	

b. Time of concentration calculation

4.	Length of Catchment	L=	2600.00	m
5.	Elevation — Highest Elevation	RL=	540.000	m
	Lowest Elevation	RL=	528.000	m
	Difference	H =	12.000	m
6.	Time of concentration			
	$t_c = 0.01947 \times K^{0.77}$	K =	38270.96	
	$K = (L^3 / H)^{0.5}$	t_c =	65.79	min

c] Calculation for maximum rainfall intensity

$I_{max} = K * T^a / (t_c + b)^n$

K =	6.9296	
T =	50.0000	
a =	0.1389	
b =	0.1500	
n =	0.9284	
I_{max} =	9.72	cm / h
I_{max} =	97.24	mm / h

d] Calculation For Peak Runoff Rate by Rational Formula

Q 1 = CIA/360

Q 1 = 81.82 cumec

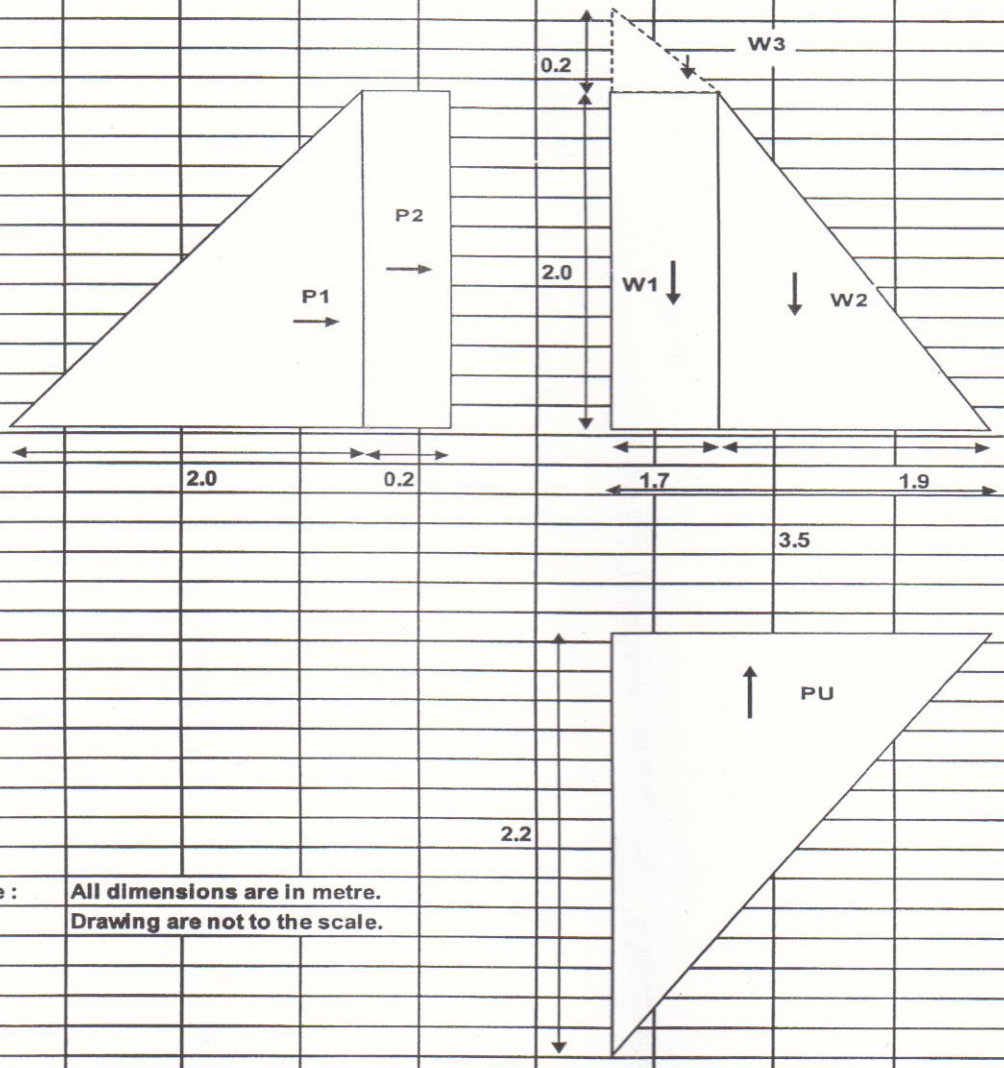
STOP DAM- : HYDRAULIC DESIGEN DETAILS

STABILITY ANALYSIS OF STRUCTURE

CALCULATION FOR STRESSES

Stability calculation for masonry wall when water is at crest level

	Specific Gravity of cement conc	2.50	ton/cum.	Friction Coefficient	0.60
	Specific Gravity of Water	1.00	ton/cum.	Uplift Coefficient	0.50
	Uplift factor	1.00			
	Flood depth (d)	0.24	Meter		
	Bottom width of dam (B_w)	3.50	Meter		
	Height of Structure (H)	2.00	Meter		
	Top width of Structure (T_w)	0.82	Meter		



Note : **All dimensions are in metre.**

Drawing are not to the scale.

FORCE & MOMENT DIAGRAM

S. No.	Pressure Force	Calculation No.	Width	Height	Specific Gravity	Force V	Force H	Lever Arm	Moment About A
1	W1	1	1.7	2.0	2.5	8.25	0.00	2.68	22.07
2	W2	1/2	1.9	2.0	2.5	4.63	0.00	1.23	5.70
3	W3	1/2	1.7	0.2	1.0	0.20	0.00	2.95	0.58
4	P1	1/2	2.0	2.0	1.0	0.00	2.00	0.67	-1.33
5	P2	1	0.2	2.0	1.0	0.00	0.48	1.00	-0.48
6	PU	- 1/2	3.5	2.2	1.0	-3.92	0.00	2.33	-9.15
	Total					9.15	2.48		17.40

STABILITY CHECKS

1. Factor of safety against Over turning-

Restoring Moment (Mr)	=	Moment of (W1+W2+W3)			28.36
Overturning Moment (Mo)	=	Moment of (P1+P2+PU)	=		10.96
Factor of Safety against Overtur	=	Mr/ Mo			
	=	2.59	>	1.5	
Design is Safe	against Overturning				

2. Factor of Safety against Rupture from Tension-

Total Moment (M)	=	Moment of (W1+W2+W3)		-	Moment of (P	+P2+PU)
	=	28.36		-	10.96	
	=	17.40	t-m.			
Excess Moment	=	M =	Mr - Mo	=	17.40	t-m.
Total Vertical Force	=	Vf		=	9.15	t-m.
Therefore, x	=	Total Moment/ Total vertical force				
	=	M/ Vf				
	=	1.90	m.			
Position of Resultant Measure from top of the anicut				=	M/ Vf	
				=	1.90	m.
1/3 Base width (b/3)			1.17	m.		
2/3 Base width (2b/3)			2.33	m.		
b/3	<	x	<	2b/3		
1.17	<	1.90	<	2.33		
Hence resultant lies within middle third of the base of the dam.						
Design is Safe	against Rupture from Tension					

3. Factor of Safety against Sliding-

Net Vertical Force (Rv)	=	12.88	t/m.	
Net Horizontal Force (Rh)	=	2.48	t/m.	
Friction Factor	=	Rv* μ /Rh	, where friction cofficient μ =	0.60
	=	3.11	>	1.3
Design is Safe	against Sliding			

4. Stability against Crushing at base-

Ecentricity (e)	=	b/2-x			
	=	-0.15		Safe	
Pmax	=	W/b(1+6e/b)		Here W=Vo	
	=	1.94	t/sqm.		
Pmin	=	W/b(1-6e/b)			
		3.29	t/sqm.		
Permissible Bearing Capacity [t/sq.m]		=	25		
Crushing stress at the toe of the Head wall (		=	1.94		
Design is Safe	against Crushing at base				

STOP DAM : STRUCTURAL DESIGN DETAILS

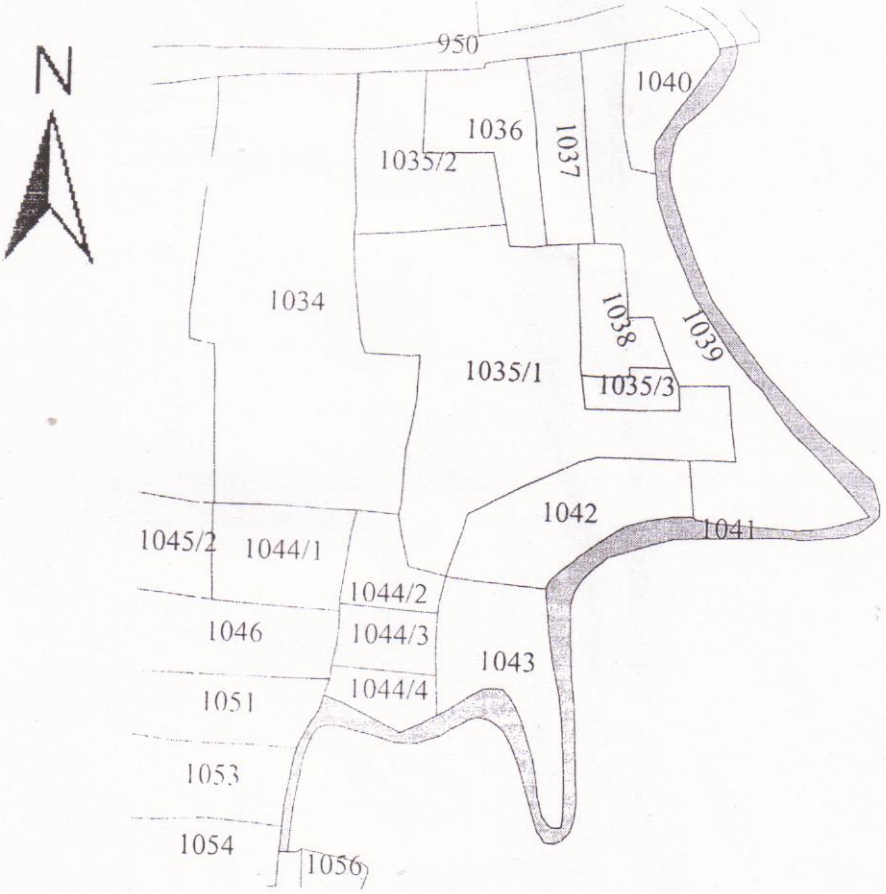
S. No	Description	Symbol		Value	Units
1	Discharge	Q	=	81.82	m^3/s
2	*Depth of Nala*	D1	=	2.54	m
3	*Width of Nala*	W1	=	18.00	m
5	*Flood Depth [$(Q / 1.704 * W)^{0.67}$]*	d	=	0.24	m
6	*Free Board*	f	=	0.30	m
7	*Gross Free Board [f + d]*	F	=	0.54	m
8	*Height of water storage*	h	=	2.00	m
9	*Total height of dam [h + F + k]*	H	=	5.04	m
10	Depth of water cushion	D_{wc}	=	0.45	m
11	Width of Water cushion [1.33 x [(dw + h)$^{0.5}$ x d]	bw	=	3.50	m
	Height of Plinth			0.30	m
11	Spillway Details				
11.1	Spillway Length	L	=	18.00	m
11.2	Foundation depth for Spillway	k	=	2.50	m
11.3	Foundation Width for Spillway			3.50	m
11.4	Top width of dam [0.55 * (h + d)$^{0.5}$]	T_w	=	0.82	m
11.5	Bottom width of dam [(h + d) / 1.5]	B_w	=	3.50	m
11.6	Height of Dam			1.80	m
12	Key Wall Details				
	No of Key Walls			2.00	Nos
	Foundation depth for Key Wall			1.70	m
	Excavation (Avg) Height above Nala Bed Level for Key Walls			1.30	m
	Foundation Width for Key Wall			2.70	m
	Bottom width of Key Wall			2.70	m
	Top Width of Key Wall			2.40	m
	Key wall length [l]	l	=	2.50	m

	Wing Wall Details				
13	Length of Wing wall D/S	L_{ds}	=	2.00	m
14	Length of Wing wall U/S.	L_{US}	=	2.00	m
15	Top width of Wing Wall's (D/S)	W_w	=	0.80	m
	Top width of Wing Wall's (U/S)			0.80	m
16	Bottom width of Wing Wall's (U/S)	Wb		0.90	m
	Bottom width of Wing Wall's (D/S)			0.90	m
	Height of Wing Wall Side Wall (U/S)			2.30	m
	Height of Wing Wall Side Wall (D/S)	Hs		2.30	m
	Foundation Depth for Wing Wall (U/S & D/S)			2.00	m
	Foundation Width for Wing Wall (U/S & D/S)			1.10	m
	Apron Details				
17	Length of Apron	W_A	=	3.50	m
18	Thickness of Apron = { 2 x [d + h] x H } / 30	T_A	=	0.60	m
	Foundation depth of Apron			0.90	m
	Width of Apron			18.00	
	Height Above GL			0.20	
	Toe Wall Detail				
	Length of Toe Wall			18.00	m
19	Width of toe wall	W_T	=	0.50	m
20	Height of toe wall above ground level			0.45	m
21	Depth of toe wall below ground level			1.50	m
	Side Wall Details				
	U/S				
22	Length of Side Wall			2.50	m
	Top Width of Side Wall			0.80	m
	Bottom Width of Side Wall			0.90	m
	Height of Side Wall U/S			2.30	m
	Height of Side Wall D/S			2.30	m
	Foundation Depth of Side Wall			2.00	m
	Foundation Width of Side Wall			1.10	m
	D/S				
	Length of Side Wall			3.50	m
	Top Width of Side Wall			0.80	m
	Bottom Width of Side Wall			0.90	m
	Height of Side Wall near Crest			2.30	m
	Height of Side Wall near Wing Wall			2.30	m
	Foundation Depth of Side Wall			2.00	m
	Foundation Width of Side Wall			1.10	m
	Gate Detail				
	No of Gates			4.00	Nos
	Width of Gates			1.50	m
	Height of Gates			1.80	m

खसरा नक्शा

दिनांक : २४/०९/२०१६ ११:३५:३० पूर्वाह्न

ग्राम : पलान्दुर राजस्व निरीक्षक मण्डल : डोंगरगढ़ तहसील : डोंगरगढ़ जिला : राजनांदगांव



मापमान 1:4000

खसरा नंबर : 1041
रकबा : 0.66 हेक्टेयर
सिंचित रकबा : 0.000
असिंचित रकबा : 0.000

शामिल खसरा : /

नाम : शासकीय भूमि : व अन्य (कूल -1 भूस्वामी)
पिता का नाम :
पता :

सहायक अधीक्षक भू-अभिलेख
राजनांदगाँव (छ.ग.)

सक्षम अधिकारी के हस्ताक्षर
व पदमुद्रा

दिनांक 24-Sep-2016

भूमि का ब्यौरा हेक्टेयर में तथा करों का ब्यौरा रुपये पैसों में

फसल की जानकारी पिछले वर्ष की है

खाना 5 से 11 में रबी तथा खरीफ की जानकारी है

फॉर्म पी-II

(खसरा)

ग्राम : पलान्दुर हल्का : 00014 रा नि : डोंगरगढ़ तहसील : डोंगरगढ़ जिला : राजनांदगांव वर्ष 2016 - 17

भू-मापन क्रमांक	क्षेत्रफल (और यदि भूमि खाते में सम्मिलित न हो तो उसका वर्णन)	कब्जेदार का नाम,उसके पिता का नाम या पति का नाम तथा निवास स्थान,अधिकार जिसके अंतर्गत भूमि धारण की गई और देय राजस्व का लगान	*	क्षेत्रफल जिसमे वर्ष के दौरान फसल उगाई गई			पड़ती का क्षेत्रफल			खाते के बाहर के क्षेत्रो में बोई गई फसल का नाम तथा क्षेत्रफल	कैफियत
				फसल का नाम	फसल का क्षेत्रफल	दु-फसली क्षेत्रफल	चालू वर्ष की पड़ती	2 से 5 वर्ष तक की पड़ती	अन्य पड़ती		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1041	0.660 भू-जल	शासकीय भूमि				0.000					कैफियत: नाला, पानी के नीचे

सहायक अधीक्षक भू-अभिलेख
राजनांदगाँव (छ.ग.)

• किसी भूमि स्वामी या पट्टेदार या किसी मौसमी काश्तकार के उपपट्टेदार का नाम, पिता का नाम,लगान या पट्टे की रकम और उप-पट्टे पर दिया गया भाग का क्षेत्रफल

प्रतिलिपि प्रदान करने वाले का हस्ताक्षर

प्रतिलिपि प्रदानकर्ता :- 24-Sep-2016 11:38:53