

SOIL & MOISTURE CONSERVATION PLAN



Construction of Sinlekh Bungli Motor Road

Gangolihat Range

Pithoragarh Forest Division

Project Cost- Rs. 4.30 Lakh

Soil & Moisture Conservation Plan

Project Name	- Construction of sinlekh bungli motor road.
Proposed area	- 3.2 Ha
Range	- Gangolihat
Project Cost	- Rs. 651 Lakh
Soil & Moisture Conservation Plan (Minimum 0.5%)	- Rs. 4.30 Lakh

Introduction


Soil and water form two major components of a forest ecosystem and they directly influence the status, health and nature of the flora and fauna that such ecosystem is likely to support. It is obvious therefore that while managing the forests the forest officials have to deal with these components and make their best efforts for their conservation to sustain the plants and animals. Soil moisture conservation aims to maintain or improve the productive capacity of the land. It involves activities at the local level that prevent or reduce soil erosion, compaction, and salinity, while also conserving water. The strategy is adapted to local conditions and depends on the participation of the local people;

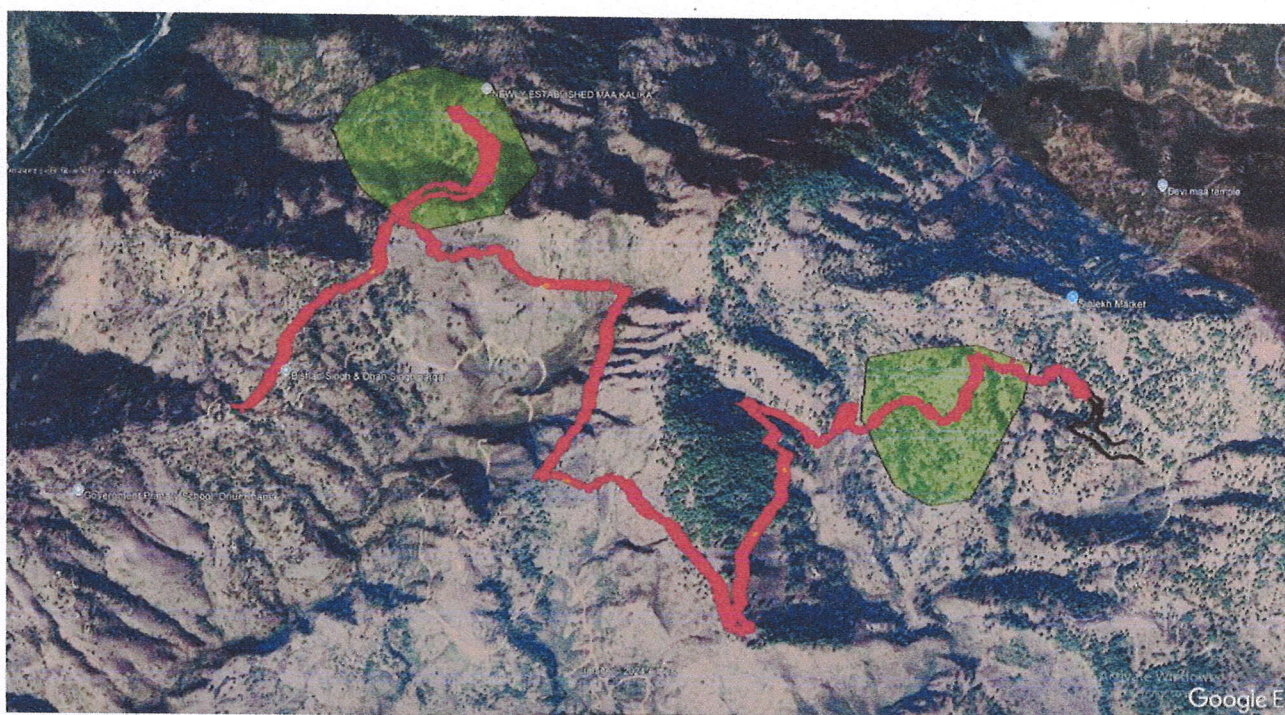
Forest is the origin for the streams and rivers; therefore, it is very important to conserve soil and moisture in its catchment area. To enhance quality of forest and its management in the target catchment areas, the activities undertaken for the soil moisture conservation include construction of check-dams, gully plugging, and percolation tanks, contour trenches, etc.

Soil Moisture Conservation works in the forest area are primarily carried out on watershed approach. This approach is aimed at enhancing land productivity and to increase the moisture availability for a longer period.

About the project

PWD Berinag has proposed construction of Sinlekh Bungli Motor Road in 3.2 ha forest area in Gangolihat range, Pithoragarh Forest Division. The proposed road length is about 7.55 km and it is passing through the Civil Forest, Van Panchayat & Nap land. About 250 villagers of village Khatigaon & Bungli will get benefitted from this project.


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Impact of proposed road on sustainability of forest

The construction of Sinlekh bungli motor road will invariably affect the wildlife as well as the biodiversity of that area. Forest roads can have a variety of impacts on the sustainability of forests, including:

1. **Fragmentation-** Adding more roads can split a forest into more "edges" and "interior" habitats, which can lead to weedier habitats and the introduction of invasive species.
2. **Pollution-** Roads can pollute water through both chronic and acute sources, and can also alter floodwater patterns.
3. **Deforestation-** Roads can help farmers establish small-scale agricultural plots, which can be more destructive to the land than selective logging. One study found that deforestation rates were highest within one kilometres of open old roads.
4. **Noise-** Road construction can create noise that disrupts wildlife.

However, sometime it is essential to construct a road in public interest through forest area. Mitigation measures can also be implemented during the design, construction, hauling, and maintenance of roads to reduce many of the negative impacts.


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Scope of soil & moisture conservation works

This proposed road is going through the civil forest & van panchayat forest in Gangolihat range. The area around the proposed site is covered with chir pine forest. Chahaj, kaltir & khailari Van panchayat will get effected from the construction of this road. To mitigate the ill effect of this project soil & moisture conservation related work could be done in this region. Soil and moisture conservation work involves practices that reduce water loss from soil and help maintain soil moisture which leads to rejuvenation of degraded forests.

Activities to be undertaken for soil and moisture conservation

With the aim of soil and moisture conservation, following activities shall be undertaken: -

- i. Contour trenches
- ii. RR dry check dam
- iii. Gully plugging
- iv. Vegetative check dam
- v. Waterholes/ Jalkund



Water Harvesting Tank

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Jal Kund



Contour Trench

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Check Dam

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Proposed soil and moisture conservation plan

As per the guidelines dated 07.06.2022, the user agency shall pay 2% of project cost for wildlife management plan and 0.50% of project cost for soil and water conservation plan. As the estimated project cost of this proposed project is only **6.51 Crores**, **0.5%** of project cost comes only **Rs 3.25 Lac.**, which is a very small amount to propose significant soil and moisture conservation works. Hence, certain soil and moisture conservation works, as mentioned below, shall be adopted, which shall aid forest and wildlife conservation.

Physical and financial targets for soil & moisture conservation works				
Target Activities	Unit	Physical Target	Rate (Rs.)	Financial (Rs.)
Digging of contour trenches& planting of rich grasses	Rmt	2000	69/rmt	138000.00
Gully plugging	No.	10	7000	70000.00
Vegetative check dam	No.	8	6500	52000.00
Water holes	No.	10	6500	65000.00
Chal-khal/ Kachha jalkund	No.	3	35000	105000.00
Total				430000.00

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