GOVERNMENT OF INDIA
MINISTRY OF COAL

RAJYA SABHA
UNSTARRED QUESTION NO. 680
TO BE ANSWERED ON 02.12.2024

Revival of land degraded by coal mining

680 Shri Debashish Samantaray:

Will the Minister of **COAL** be pleased to state:

(a) the area of land degraded by coal mining activities across the country and the steps taken for land rehabilitation and reforestation;

(b) the details on funds allocated for the restoration of mined areas with specific programs aimed at reviving local ecosystems; and

(c) the success stories or examples of effective land rehabilitation in coal mining regions?

ANSWER

MINISTER OF COAL AND MINES
(SHRI G. KISHAN REDDY)

(a): As per the report prepared by Central Mine Planning & Design Institute Limited (CMPDI) related to "Greening Initiatives in Coal & Lignite PSUs", the land degraded on account of coal mining till FY 2021-22 was 88976.91 Ha. Steps taken by Coal/Lignite PSUs (CIL, NLCIL and SCCL) for land rehabilitation and reforestation are as under:

- Technical Reclamation
- Biological Reclamation: Plantation and grassing on Over Burden Dumps and degraded area.
- Development of Eco-parks.
- Development of Eco-restoration sites.
- Plantation through Miyawaki Technique etc.
- Creation of Water bodies
- Other Re-purposing activities like Solar, buildings etc.

(b): Coal companies follow the mine closure guidelines issued by Ministry of Coal (MoC). As per the mine closure guidelines, the project proponent deposits the fund in the dedicated escrow account for implementation of mine closure activities. As per issued guidelines, Rs. 9.00 lakhs / hectare for OC mines and @ Rs.1.50 lakh / hectare for UG mines are to be deposited in the escrow fund (which is modified based on the whole sale price index as notified from time to time). Mine Closure cost is deposited annually as per the approved Mine Closure Plan by the concerned project proponent in dedicated escrow account, throughout the mine life compounded 5 % annually. During the implementation of mine closure activities, the fund allocated for the restoration of mined out areas as per the approved Mining Plan of the concerned mine is utilized for restoration.

(c): Success stories or examples of effective land rehabilitation in coal mining regions are given below:

- **Bio-reclamation/Plantation:** Coal/Lignite PSUs have been making constant efforts to minimize the carbon footprints of coal mining through sustained reclamation and afforestation of areas in and around coal mines. During last 5 Years (FY 2019-20 to FY 2023-24), about 10,942 Ha were brought under green cover with 23.64 million saplings planted by Coal/Lignite PSUs in and around coal mines.
- **Creation of Eco Parks/Mine tourism sites:** Coal/Lignite PSUs is taking various steps to explore and conceptualize a plan for the beautification & creation of eco parks in the reclaimed areas and to explore tourism potential in few underground mines, which will also include water bodies etc., for re-creation activities and tourism purpose. During last 5 Years (FY 2019-20 to FY 2023-24), Coal/Lignite PSUs have developed 16 Eco-parks/Mine Tourism sites in various coalfields. This effort of Ministry of Coal is emphasizing the commitment to creating sustainable and engaging spaces for the local communities.
- **Efficient utilization of mine water:** Mine water after application of appropriate treatment methods is utilized for various purposes such as - community supply for domestic and irrigation purposes; industrial use for dust suppression, plantation, firefighting, machinery washing, sprinkling in UG workings, creation of recreational areas, fish farming, and groundwater recharge etc. Coal/Lignite PSUs have also entered into an MoU with respective State Government for community water supply. In FY 2023-24, about 4,892 lakh kilo litres (LKL) of mine water has been offered for community purposes (Domestic/ Drinking - 2389.5 LKL & Irrigation - 2502.82 LKL).
- **Gainful Utilization of overburden:** Extracting sand from Over Burden (OB) for construction and stowing material supports sustainable development by providing affordable sand and reducing the land required for OB dumps. As of March 2024, Coal/Lignite PSUs have commissioned 4 OB processing plants and 5 OB to M-Sand Plants. This initiative not only helps reduce environmental pollution, improve the riverine ecosystem, enhance water flow, and boost groundwater recharge, but also provides a cheaper alternative for construction sand.

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