

REHABILITATION OF MINE WASTELANDS

Specifications and salient technical features	<p>The land is reshaped into terraces and slopes for rainwater harvesting and terrace for transplanting seedlings.</p> <p>Planting pits (60 cm³) at 3 m spacing in rows 9 m apart are filled up with necessary growing medium, consisting of mixture of fine sand /farm soil and farmyard manure in 2:1 ratio.</p> <p>Eight species of trees and seven of shrubs could be planted at 3 to 5 m in a row which could be 6 to 9 m apart.</p> <p>The interspaces could be grown with forage grasses, perennial medicinal plants and cucurbitaceous vegetables and cereals e.g. pearl millet.</p>
Performance results	<p>Within three years, area is rehabilitated. Trees and shrubs attain 2-4m height and 1-4 m² canopy cover. Forage grasses, cereals and other intercrops grew successfully.</p>
Likely cost	<p>` 20,000/- per ha</p>
How the new technology will impact the income of the farmers and its benefits over conventional technologies/know-how in terms of savings in cost of operation, inputs, timeliness and other pertinent information	<p>On an average farmer could produce about 150 kg pearl millet ha⁻¹ and 350 kg legume ha⁻¹ before mining. After mining, these lands remain barren and unproductive. After rehabilitation it was possible to obtain about 5-7 tons of wood per ha where previous productivity was negligible. Cultivation of crops between the two rows of trees could also produce about 150-200 kg pearl millet per ha. Additionally, <i>Cenchrus ciliaris</i> yielding about 1.5-2 tons ha⁻¹ could also be produced from inter tree space.</p>
Social/environmental/other benefits	<p>Arid ecosystem attains ecological stability on sustainable basis only after having perennial plant cover. This technology provided a perennial plant cover of trees, shrubs and grasses, which has survived for the last ten years.</p> <p>After land is acquired for mining, the land holder becomes landless. The compensation amount paid to the land owner gets exhausted due to poor fiscal control in villages. Consequently, these land owners later become labourers. By rehabilitation, these lands become suitable for agroforestry and silvipasture development providing much needed life support in the fragile arid ecosystem.</p>
Any special requirements for its successful realization; any other standards	<p>A well shaded nursery, perennial source of irrigation water, polythene packets, FYM, pond silt, local sand/ soil, seeds/ cuttings of selected species, trained gardener and some labourers.</p>



Mined



Backfilled



Dump yard

After 2-3 years of Rehabilitation

