

We Nurture
The Nature
For U



The Organization
Committed to
Environment &
Sustainability

“There is enough on earth
for everybody’s need,
But not enough
for anybody’s greed”

Mahatma Gandhi



ENVIRONMENT POLICY

GMDC IS COMMITTED TO

1. Adopt best environmental management practices by consistent knowledge up gradation, capacity building and adoption of best suited measures by systematic approach to prevent and control pollution at its facilities.
2. Ensure total compliance of all environmental regulations, requirements and go beyond compliance by integrating best practices in every operational activity with assigned line-functions
3. Develop a culture of environmental and health consciousness, resource conservation and waste reduction awareness among all stakeholders for shared responsibilities of environmental protection.
4. To develop green belt in harmony with nature for sustainable development, mining, power generation, industrial activities.
5. To reduce carbon footprints and in long term goes for carbon and climate neutrality by adopting best practices in the operations and management.

Arunkumar Solanki, IAS
Managing Director

RENEWABLE ENERGY GENERATION

- Contributing 200.9 MW wind energy currently
- Strong commitment for renewable energy generation to reduce carbon footprints
- Reduction in Carbon- Dioxide generation by 24,66,166 tons till DEC'2018 through renewable energy generation initiatives
- Harnessing solar energy by 5 MW solar panels at Panandhro Lignite Mine on mined out reclaimed area
- Installation of Solar Panels over the roof top of Office buildings, Gardens, Shopping Complex etc.

GREEN BELT DEVELOPMENT

- Plantation on backfilled area of mine with preference to indigenous species
- Top soil conservation by separate storage of stripped top soil for reuse in restoring the mine pit
- Fodder cultivation for gauchar land development at backfilled mine pits for usage by local stakeholders
- Plantation of products of commercial value for revenue generation
- Converting reclaimed mine area to agricultural land through bio rejuvenation with the help of experts



STABILIZATION OF DUMPS IN MINES

- Dump stabilization by compaction using dozers followed by plantation
- Sowing grass at dump sites to create green space
- Development of toe walls, garland drains & silting ponds near dumps
- Development of self-sustaining plantation on dumps
- Medicinal and fruit bearing plantation like Alovera along with grass on dumps as a reclamation practice

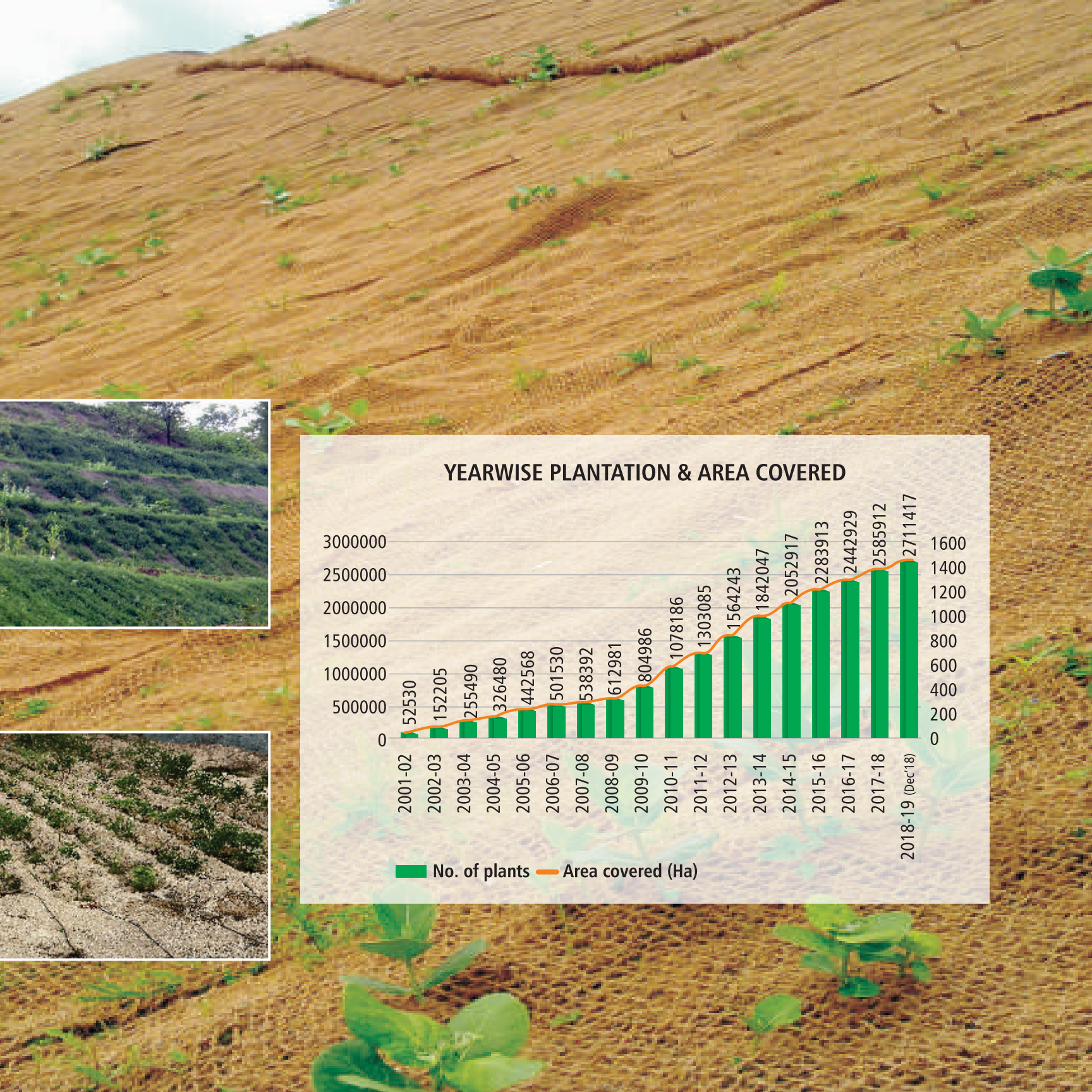
WATER HARVESTING

- Rainwater harvesting through check dams
- Plantation in backfilled area through check dam via gravity conduits network
- Storage, treatment & use of mine water
- Drip Irrigation system for plantation at pit dump catered via rainwater conserved in Check dam as well as treated mine and seepage water

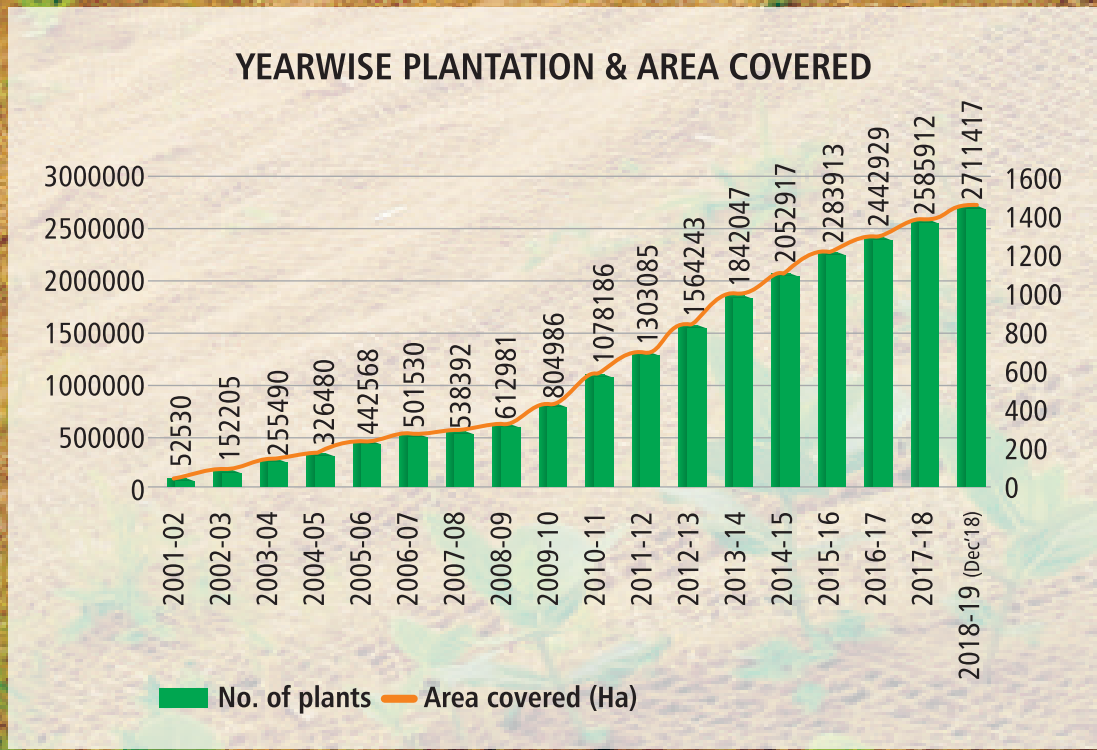
WATER CONSERVATION

- Effluent Treatment Plants for treatment of mine seepage water & sewage for reuse
- Use of Drip Irrigation system to optimize water use, around 256 hectares area is covered by Drip Irrigation system in various projects
- Subsidized Drip Irrigation system for nearby villages
- Use of treated mine seepage water & sewage for green belt development and dust suppression
- Procurement of state-of-the-art jeep mounted mobile RO plant based on Israeli technology for efficient treatment & better utilization of mine seepage water





YEARWISE PLANTATION & AREA COVERED





ENVIRONMENTAL COMPLIANCE

ENVIRONMENTAL MONITORING AND AUDITING

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- For third party verification, monthly environmental monitoring by GPCB authorized laboratory,
 - (1) Stack Emission Monitoring
 - (2) Ambient Air Quality Monitoring by establishing a network of monitoring locations.
 - (3) Seepage, sewage and stored water quality for physical and chemical characteristics
 - (4) Underground water level in mining area
- Environmental auditing by GPCB approved Auditors as per environment audit scheme of GPCB
- Weather Monitoring.

WASTE WATER TREATMENT & REUSE FACILITIES

- Treatment of collected mine sump water through Scada based automatic effluent treatment plant having online analyzers for specific environmental parameters and monitoring through Cloud based Server and reusing for dust suppression as well as plantation.
- Treatment of rain water and domestic waste water for effective and efficient use for dust suppression and plantation.
- Desalination plant for Sea Water Treatment for use in Thermal Power Plant as well as domestic use.
- Procurement of State-of-the art Jeep mounted mobile RO Plant based on Israeli Technology for efficient treatment and better utilization of mine seepage water.

Separation of Oil & Grease from Mine Workshop Waste Water through Oil and Grease Separator.



LABORATORY FACILITIES

- Water Quality Monitoring
- Stack Emission Monitoring
- Ambient Air Quality Monitoring
- Noise Level Monitoring
- Instruments Available in Laboratories

Muffle Furnace, BOD Incubator, COD Reactor, Sound level meter, pH meter, TDS meter, Spectrophotometer, Soil analysis kits , PM10 & PM2.5, Personal Dust Sampler, piezo meter etc.

POLLUTION ABATEMENT AT THERMAL POWER PLANT

- CFBC Boiler installed
- ESP Cyclones and Dry Fog System installed
- Lime Dosing System to control SO_x Emission
- Utilization of ash for cement industries and for backfilling in mines
- Regular water sprinkling
- Close conveyor pneumatic system for material handling









DUST ABATEMENT

- Provision for Tarpaulin cover for Lignite bearing trucks
- Round the clock dedicated water sprinkler in all the 3 shifts abating fugitive dust due to vehicular movement and mining activities
- Continuous Lignite dispatch cycle, no stockpiling of Lignite

OIL TRAP FACILITY AND USED OIL STORAGE SHED

- Facility of Oil trapping at washing area provided to collect oil traces from washed water and reutilize oil free water
- For compliance with storage of used/burnt oil, generated from machinery maintenance, a facility is established at an isolated covered storage shed with impervious flooring. This used/burnt oil is being disposed off by selling it to GPCB authorized re-processors / recyclers.

ENVIRONMENT AWARENESS

- World Environment Day celebration
- Van Mahostav celebration
- Swachchhata Pakhwada celebration
- Donation of dust bins & waste collection vehicles for nearby villages



We care for
Ecology
no less than
Geology



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