

Biomass Compact Briquette Fuel And Its Preparation Method

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ABSTRACT

The present invention relates to a method of preparation of the compact biomass briquette/pellet. The Invention in particular provides an efficient method of converting waste and loose biomass, particularly pine needles, into resourceful and compact bio-fuel for domestic and industrial utilization as well.

KEY APPLICATION AREAS

1. Biomass-based renewable energy.
2. Waste-to-energy and biomass valorization.
3. Solid biofuel (briquette and pellet) production.
4. Forest and agricultural residue management.
5. Rural and industrial clean energy.
6. Sustainable forestry and circular bioeconomy.

POTENTIAL USE

1. Production of biomass briquettes and pellets from pine needles and other biomass residues.
2. Domestic cooking and heating fuel as an alternative to firewood and coal.
3. Industrial boiler and furnace fuel using high-calorific, dense biomass briquettes.
4. Utilization of forest waste (pine needles) to reduce wildfire risk and improve forest management.
5. Conversion of agricultural residues and municipal biomass waste into value-added solid fuel.
6. Rural livelihood and employment generation through biomass collection, processing, and briquette manufacturing.