
Executive Summary of
ENVIRONMENTAL IMPACT ASSESSMENT

For
Common Municipality Solid Waste Management
Facility, Doddabiddarakallu, Bengaluru,
Karnataka.

Submitted to
Karnataka Urban Infrastructure Development
and Finance Corporation

Submitted by
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EXECUTIVE SUMMARY

1. INTRODUCTION

To sustainably manage the huge quantity of municipal waste, Bruhat Bangalore Mahanagara Palike (BBMP), who is the project proponent, has planned to establish Common Municipal Solid Waste Management Facilities (CMSWMFs) in and around Bengaluru. One of the proposed CMSWMFs is being developed at village Doddabiddarakallu, Bengaluru. The Government of Karnataka has appointed Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) as the Nodal Agency to facilitate implementation of these waste management facilities in the BBMP area. KUIDFC engaged AECOM India Private Limited to carry out an Environmental Impact Assessment (EIA) study for the upcoming CMSWMF at Doddabiddarakallu.

The project has been categorized under Item 7(i) B as per Schedules of MoEF Notification dated September 14, 2006 and subsequent amendments of notification No., S.O. 1598 (E).dated 25th June, 2014. The proposed site is located at Survey. No. 75, Doddabidarakallu, Yeshwanthapuram Hobli, North Taluk, Bengaluru, 350 m away from NICE Road, with geographical coordinates 13° 1'53.63"N and 77°28'47.61"E. The site was being used as a dumpsite for municipal solid waste since year 2007 upto the year 2012. The proposed facility is spread over an area of 11 acres and will be handling about 200 TPD of municipal solid waste. The project components include the following:

- Scientifically capped landfill for existing municipal waste
- Waste Processing Section:
 - Pre-sorting / Segregation area (Handpicking and mechanical sorting)
 - Covered Windrow Composting block
 - Dry waste processing area (shredding, bailing and stacking)
- Waste Storage Areas
 - RDF Storage Block
 - Interim Inert Waste Storage Area (2 years)
- Leachate collection system and Leachate Treatment Plant,
- Rainwater harvesting sumps,
- Final Compost bagging machine,
- Electronic Weigh Bridge
- Vehicle parking, washing and maintenance,
- Transformer area,
- DG set area,
- Internal roads

The salient features of the project are presented below in **Table 1**.

Table 1: Salient Features of the project

S. N.	Item	Details
1	Project Type	Common Municipal Solid Waste Management Facility
2	Proposed waste treatment technology	Windrow composting in a closed shed and scientific

S. N.	Item	Details
		capping of existing municipal waste
3	Design Period	Designed for 10 years
4	Water requirement	56 KLD
5	Waste water generation	21 KLD of leachate (completely utilized within the site)
6	Source of water	Construction water will be sourced from approved tankers (grey water), bore wells and recycling of treated leachate.
7	Power requirement	500 kilo-watt (kW) electrical connection which will be obtained from Bangalore Electricity Supply Company Limited (BESCOM). A DG set of 200 kilo volt amps (KVA) capacity is proposed (as a backup) during operations.
8	Project Accessibility	Handrihalli road provides direct access to the project site. The site is at a distance of approximately 350 m from the Bangalore Mysore Infrastructure Corridor (BMIC), also called as NICE Road.
9	Nearest Railway Station	Bangalore Railway Station – 12km (south east)
10	Nearest Airport	Kempegowda International Airport, Devanahally – 30km (north east)
11	Nearest eco-sensitive area	The northern periphery of the Jharkabandi State Forest is at 7.04 km (north east)

2. DESCRIPTION OF THE ENVIRONMENT

The baseline assessment is based on project site assessment and reconnaissance survey of the study area of 10 km radius around the boundary of the site. Baseline data is also supplemented by secondary information collected from various literatures, documents, report of previous surveys and also census data of the study area. Primary environmental baseline data was collected during mid December 2014 to mid January 2015. Secondary data and information on various environment aspects like site setting and topography, hydrogeology, hydrology, drainage pattern, meteorology, geology, ecology, land use and socio economic aspects were collected from different institutions, government offices and literatures etc.

The baseline ambient air quality, water quality, soil quality, noise level and traffic density in the study area is based on the monitoring conducted. The baseline sampling and monitoring was done in compliance with applicable standards as prescribed by Central Pollution Control Board (CPCB). Information on the analysis of environmental attributes is presented in EIA report.

Table 2: Baseline Environmental Status

Physiography	Physiographically, the Bengaluru North district can be divided into rocky upland, plateau and flat topped hills at a general elevation of about 900 amsl with its major part sloping towards south and south east forming Pedi plains interspersed with hills all along the western part. The average elevation of the project site is approximately 880 meters. There is a gentle inward slope towards the centre of the site from the north and the south.
Existing Land use	Agricultural land constitutes major share of the total study area, i.e. 47.25%, followed by developed land (19.7%). About 16.6% of area comprises of dense vegetation while forests make up only 0.59% of the study area.

Hydrology and Drainage Pattern	The drainage pattern of the Bengaluru North taluk is governed by the Granitic ridge running NNE to SSE almost to the middle of the taluk. The Arkavati River flows in the district for a small distance in Bengaluru North taluk and the Dakshina Pinakini touches the borders of the district to the North-East of the Anekal Taluk.
Climate and Meteorology	Bengaluru enjoys a moderate climate with distinct wet and dry seasons throughout the year, with temperatures ranging between 16-33°C, with an average of 24°C. The coolest month is December with an average low temperature of 15.4° C and the hottest month is April with an average high temperature of 32.8°C. The summer heat is moderated by fairly frequent thunderstorms and squalls and causes power outages and local flooding. It receives adequate rainfall of about 860 mm from the northeast monsoon as well as the southwest monsoon. The wettest months are August, September and October.
Ambient Air Quality	Ambient Air Quality Monitoring (AAQM) stations were set up at 6 locations in downwind, cross wind and upwind direction of the proposed project location. The PM ₁₀ and PM _{2.5} concentration recorded at all the sampling locations were within the prescribed CPCB limits of 100 µg/m ³ and 60 µg/m ³ respectively. The recorded values for PM ₁₀ and PM _{2.5} were in the range of 41.4- 56.1µg/m ³ and 12.4- 16.5 µg/m ³ respectively. The concentrations of SO ₂ and NO _x in the study area were observed to be in the range of 6.3µg/m ³ – 8.5µg/m ³ and 12.5 -16.8µg/m ³ . The carbon monoxide concentrations were observed to be below NAAQS limits of 2000µg/m ³ at all the sampling locations.
Water Resources	Six groundwater samples and two surface water samples were collected from the study area for analysis of existing water quality in the area. Total hardness in two of the ground water samples was observed to be exceeding the permissible limits of 600 mg/l, indicating presence of hard water. The total coliform numbers in the ground water samples indicates that the water sample is contaminated with fecal matter. Total Dissolved Solids were observed to be exceeding the permissible limit of 2000 mg/l at one location while at remaining locations, the observed values exceed the desirable limits of 500 mg/l.
Soil Quality	The analytical results indicate that the soil texture in the study area is sandy clay loam with about 50% sand. The porosity of the soil samples ranged from 21 – 85% and the Electrical Conductivity was observed to be 0.19 - 0.31 mS/cm.
Ecology	According to the Champion and Seth Classification of Indian Forests, the natural vegetation of the survey area represents dry thorny to deciduous scrub forest. The study revealed that the area consists of arid and semi-arid thorny scrub forest type dominated by <i>Prosopis cineraria</i> , <i>Calotropis</i> and exotic species such as <i>P. juliflora</i> , <i>Eucalyptus</i> , <i>Lantana camara</i> , <i>Parthenium spp</i> and <i>Chromolaena odorata</i> . No Wildlife Sanctuary, National Park or any other ecologically sensitive area are present within 10 km radius from the proposed project boundary except Jharkabandi State Forest boundary which is at a distance of 7.04 km in North-East direction from the project boundary. The assessment of mammals was conducted by direct sightseeing and by using indirect techniques by establishing 10 × 100 m transects after spotting of fecal matter etc. The avian fauna was determined as per standard method by Sutherland (1996), wherein 10 minute observation was followed at each point during early morning hours (6.00 to 10.00 AM), bird calls, nesting etc and also on the basis of secondary data collection. Details have been provided in the EIA report.
Social Environment	The project area is positioned in a government owned land in village Doddabiddarakallu, in taluk Bengaluru North of Bengaluru Urban District of the State of Karnataka. The project site boundary is spread over 11 acre of land. The proposed site location is a residential area with about 11 villages falling in 2 km radius distance of project site.

3. ANTICIPATED ENVIRONMENTAL IMPACTS

The potential impacts likely to cause during construction phase and operation phase due to various developmental activities and operation phase while handling and management of municipal waste have been identified and discussed in the **Table 3** below.

Table 3 Anticipated environmental and social impacts during construction and operation phase

S. N.	Parameter	Construction Phase	Operation Phase
1.	Air Quality	Dust emissions from site preparation, excavation, material handling and other construction activities at site, vehicular movement	<ul style="list-style-type: none"> • Particulate emissions during waste tipping, windrows compost plant, RDF storage area, material handling, vehicular movement within the plant premises • Benefit of reducing generation of methane emissions into the atmosphere due to closure of existing waste dumpyard
5	Noise Quality	Noise generation from construction activities, construction equipment and vehicular movement	Noise from facility operation such as shredders, rotators, compactors, bailers and vehicular movement
6	Water Quality and groundwater resources	<ul style="list-style-type: none"> • Surface runoff from project site • Oil/fuel and waste spills • Improper debris disposal • Groundwater will be used 	<ul style="list-style-type: none"> • Oil/fuel and waste spills. • Wastewater from plant processes • Discharge of waste water and contaminated storm water from site • Generation of leachate • Use of Groundwater
7	Land use and Aesthetics	Site clearance and development	<ul style="list-style-type: none"> • The site is an existing dump yard for municipal solid waste. • With the proposed project, systematic and environmentally sound handling and management of solid waste will be done.
8	Ecology Flora and Fauna	Habitat disturbance during construction activity	Land use change
9	Soil Quality	<ul style="list-style-type: none"> • Construction activity leading to topsoil removal and erosion. • Improper material handling may lead to spilling of waste, chemicals, solvents 	<ul style="list-style-type: none"> • Improper material handling may lead to spilling of waste, chemicals, solvents and leachate percolation • Improper storage of solid wastes • Fuel and material spills
10	Traffic Pattern	Haul Truck/construction vehicle movement	Slight increase in traffic on Tippenhalli and Handrihalli roads.
11	Socio-economy	Increased job opportunity for locals	<ul style="list-style-type: none"> • Increased job opportunity for locals • The existing waste dump yard will be closed and a well designed CMSWMF will be provided for management of waste

4. ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed Common Municipal Solid Waste Management Facility (CMSWMF) at Doddabiddarakallu has been prepared to ensure that project implementation is carried out by taking appropriate mitigation measures to minimize impacts on the environment during construction and operational phase. A short summary of the EMP is listed below.

Table 4: Environment and Social Management plan/ mitigation measures during construction and operation phase

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
CONSTRUCTION PHASE		
1.	Land Use	<ul style="list-style-type: none"> • Minimum filling and cutting works to be undertaken during site clearance activities; • Excavated topsoil to be preserved in stockpiles; • Movement and parking of heavy machinery and other vehicles will be restricted to identified routes and areas in order to limit soil compaction; • Diversion dykes to be provided around the excavated site in order to channel surface runoff of excavated material; • Construction footprint will be well defined and restricted to within the site boundary.
2.	Soil Quality	<ul style="list-style-type: none"> • Avoid site grading, excavation and backfilling works during monsoons. • Retention wall or bund to be provided around the storage areas for excavated soil and other construction material; • Restrict movement of heavy machinery to limited areas within site to minimize the possibility of compaction; • Excavated materials will be used for backfilling material • Provision of screen within construction site so that the waste does not get scattered; • Segregate construction waste and facilitate their reuse to the extent possible; • Educate the workers and subcontractors about hazardous waste storage and disposal procedures; • All chemical wastes to be stored on paved surfaces and provided with covered sheds. Such areas to be located away from storm drains or watercourses. • Empty containers of paints, solvents, adhesives and sealants to be sold to authorized vendors only.
3.	Ambient Air Quality	<ul style="list-style-type: none"> • Wet suppression will be applied to all inactive disturbed surface areas on a daily basis especially during dry and windy days; • Downwash of trucks (especially tyres) will be done prior to departure from the construction site to reduce the mud and dirt carryout; • Limited vehicular movement will be permitted on disturbed soils • Vehicle speeds on unpaved roads will be restricted 25 kmph; • Contractors will be required to maintain valid Pollution under Control certificates issued by Transport Department and proper maintenance records for their fleet; • Haul trucks will be covered with suitable covering material like tarpaulin sheets to prevent fugitive emissions during transportation of construction materials. • A minimum freeboard of six inches will be maintained by haul trucks when material is transported on any paved road. • Periodic maintenance of construction equipment will be undertaken to minimise exhaust emissions; • Proper housekeeping of the area to be maintained to remove dirt/debris from the site on daily basis.
4.	Ambient Noise Quality	<ul style="list-style-type: none"> • The construction areas to be provided with sheet barriers or temporary walls along the boundary close to any habitations; • Rubber padding to be provided in the construction machinery for vibration control; • Provide acoustic enclosures and noise barriers in areas of high noise generating sources; • High noise generating activity will be permitted during day time only;

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
		<ul style="list-style-type: none"> Regular maintenance of its vehicles and repair of its equipment/ machinery will be undertaken; Mobile noise sources such as cranes, earth moving equipment and heavy goods vehicles (HGVs) to be routed in manner that there is minimum disturbance to nearby habitation. In case diesel generators are installed, they should be provided with acoustic enclosure to achieve the 75 dB(A) level at 1 m from its enclosure as per EPA Amendment Rules (2002); Construction machinery and vehicles will be well maintained and idling of equipment or vehicles when not in use to be avoided; Construction workers working near high noise generation will be provided with ear plugs/ ear muffs to limit exposure to occupational hazards.
5.	Water Resources and Quality	<ul style="list-style-type: none"> Treated grey water to be used for construction activities such as dust suppression, curing and formation of concrete mixtures. Awareness on optimal water consumption will be provided to the labourers. Excavation will be avoided during monsoon season; Garland drains will be constructed to prevent the runoff from stockpiles generated during excavation; Vehicle Maintenance and related activities will not be undertaken at site to avoid any oil spill/leaks; Arrangements for septic tank-soak pits will be provided for disposal of sewage as per the design aspects of Bureau of Indian Standards; An impervious cover will be provided over the adjacent Nala/ storm water drain to prevent the surface runoff carrying the construction waste materials/ other pollutants to enter the Nala.
6.	Ecology	<ul style="list-style-type: none"> No illegal hunting and poaching activities to be allowed in the study area; No vegetation to be removed from area outside the project site boundary; Minimum levels of noise during construction activities shall be maintained as well as illumination and night operations will be restricted to avoid adverse impacts on habitat of fauna.
7.	Traffic and transport	<ul style="list-style-type: none"> Movement of traffic entering the site shall be properly managed to ensure minimum disturbance to community; Dedicated entry and exit points to be provided within the Site. Dedicated parking area will be provided in the project site for parking of vehicles. The speed of vehicles will be restricted to 25 km/hr. Detailed plan for signage around the construction areas will be prepared to facilitate traffic movement. The loading and unloading of the construction equipments will be carried out at dedicated location in the Site. Roads damaged due to project vehicle, if any will be repaired and maintained at regular intervals during the construction period. Inventory of the vehicles used in project and construction equipments along with their Pollution under Control (PUC's) will be maintained.
8.	Socio-economics	<ul style="list-style-type: none"> Adequate drainage inside the project facility will be provided so that water does not become stagnant or collect in adjoining areas; All high noise generating activity will be permitted during daytime only to ensure minimal disturbance to the nearby residents; Workers from nearby villages will be engaged in construction activities as per their skill set, to supplement their income; Workers will be briefed about general conduct and behavior while interacting with local community; Adequate security arrangement will be provided to ensure that the local inhabitants and the cattle are not exposed to the potential hazards of construction activities;

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
		<ul style="list-style-type: none"> Proper fencing and proper signage will be provided around construction site; Security Personnel will be appointed to restrict entry of unwanted people to the site round the clock.
9.	Occupational Health and Safety	<ul style="list-style-type: none"> The construction staff and contractors involved in the construction activities will be trained on the necessary precaution and safety practices prior to commencement of construction activity; The necessary safety measures will be taken up before and during the construction activities for all electrical driven machinery; All required Personal Protection Equipment will be used by the workers at site and their use to be supervised; Safety harness will be ensured for workers while working at heights; A work permit system will be implemented for all works related to working at heights (typically when working over 2m and above) and for hot jobs; All works related to working at heights will be undertaken only during the daytime when sufficient sunlight is available; Use of temporary fall protection measures in scaffolds and out edges of elevated work surfaces, such as hand rails and toe boards to prevent materials from being dislodged will be done; Workers will be provided with required PPEs to be used at site; All excavation activities will be conducted in supervision of the site contractor; Proper signage will be provided in places of excavated areas;
OPERATION PHASE		
10.	Ambient Air Quality	<ul style="list-style-type: none"> Stack height for DG sets will be maintained at 8m as per norms prescribed by CPCB/MoEFCC; Internal roads will be concreted / asphalted to reduce dust emissions; All the trucks bringing waste to the site will be covered throughout their transportation route; BBMP to ensure that all project related vehicles maintain valid Pollution under control (PUC) certificates; Speed restriction (25 km/h) will be followed within the facility and speed breakers will be provided at entry and exit points; Thick green belt will be provided along the internal roads and plant boundary which will limit the spread of dust and odour; Flaring or capture of landfill gas should be considered instead of open venting into the atmosphere. Quality of the generated gas to be tested for methane composition in order to assess the viability of flaring or gas utilization system. Post closure monitoring of ambient air quality at site should be undertaken as per the requirements of Schedule III, MSW Rules, 2000.
11.	Soil Quality	<ul style="list-style-type: none"> Design parameters for facility already include impermeable concrete windrow pad, drainage network, leachate collection and treatment system. Ensure that the surface runoff from paved areas are collected in storm water drains and does not flow to landscaped areas;
12.	Ambient Noise Quality	<ul style="list-style-type: none"> Acoustic enclosures, rubber paddings and linings will be provided for all noise producing equipments such as shredders, DG sets etc. Trees with heavy foliage and Green belt of 6m width in 3 rows to serve as acoustic barriers; Proper maintenance of machineries such as diesel and exhausts silencers, lubrication of conveyer trolleys, etc. Working hours of the workers employed in high noise areas will be rotated; Earplugs/muffs, or other hearing protective wear will be provided to those working very close to the noise generating machinery; Periodic monitoring of noise levels on site and at nearby receptors will be carried out to ensure compliance with Noise Pollution (Regulation &

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
		Control) Rules 2000.
13.	Water Resources and Quality	<ul style="list-style-type: none"> Recycling and reuse of leachate will be carried out to minimize fresh water requirement Provisions to be made for rainwater harvesting from rooftop, paved areas and landscaping areas. The domestic waste water will be sent to septic tank followed by soak pit. Storm water drainage and garland canal will be fitted with screens and filters to avoid contaminated runoff water getting mixed with the rainwater. Hazardous material will be stored on concrete paved platform and disposed through authorized Hazardous waste vendor. Runoff (leachate) from the waste tipping areas will be collected separately and conveyed via leachate collection drain upto leachate collection sump. Quality of groundwater should be monitored and analysed against IS 10500 standards for drinking water prior to use. Certified water meters will be installed at the inlet point of water uptake and the discharge point to monitor the daily water consumption and identify leakages if any
14.	Traffic and Transport	<ul style="list-style-type: none"> Use of Handrihalli road for movement of vehicles/ trucks carrying waste to site and finished product to the market will be avoided to the extent possible. A proper traffic management plan will be implemented to mitigate adverse impacts, if any on existing traffic and transport scenario. All routes for waste carrying vehicles/ trucks will be planned to cause minimal disturbance to local community.
15.	Ecology	<ul style="list-style-type: none"> A green belt will be developed along the periphery of the proposed project which will limit noise reaching outside the project boundary and provide habitat to small birds and mammals; Native species and healthy seedlings will be planted at intervals of 4 x 4-m in 60 x 60 x 60-cm size pits filled with topsoil; No activities shall be planned in the green buffer other than approach/ service road. Attempts will be made to ensure that all open spaces, where tree plantation may not be possible, will be covered with shrubs and grass to prevent erosion of topsoil.
16.	Socio-economic aspect	<ul style="list-style-type: none"> Good Waste Handling practices will be implemented which will greatly reduce foul smell and reduce impact from odours. Vehicles/ trucks moving through community roads will be covered and the operations will be restricted to day time. Maximum efforts will be made to provide job opportunities to local residents during construction and operation phase. To implement effective waste management, BBMP shall organize trainings for rag pickers operating in the nearby areas emphasizing on the importance of segregation and safe handling of waste. Awareness campaigns to be organized emphasizing the need of sorting at source, waste collection and participatory role of residents in waste management in an area.

For effective implementation of environmental mitigation measures and management plans, an Environmental Management Cell (EMC) will be established for the project. The proposed structure of this Cell has been presented in the EIA report. During the construction phase, this Cell will include staff representatives from BBMP, KUIDFC and KRIDL and from the civil contractor company hired by KRIDL undertaking construction work at site. During the plant operation phase, the Environment and Social Management Cell will have representatives from BBMP and the private plant operator agency.

A significant portion of the project activities will be undertaken by contractors. BBMP will ensure that the contractual documentation with the private Operator Agency emphasizes on compliance to all relevant national and state HSE legal requirements, project specific Environment Management Plan and Monitoring Plan.

The overall management of the project will be undertaken through coordination between BBMP and project site team.

A **monitoring programme/plan** has been developed for each environmental attributes like air, water, noise, soil, etc. with monitoring parameters, location, frequency along with who is responsible to implement environment management plan for both construction phase and operation phase.

5. RISK ASSESSMENT

As part of the Common Municipal Solid Waste Management project, it is important to identify associated safety hazards and carry out a basic risk assessment. The potential hazards associated with operations of a CMSWMF, including closed landfill site, may be categorized as below:

- Physical hazards
 - Fire hazard in windrow composting
 - Heavy equipments and machinery for waste tipping
 - Turning windrows
 - Pre-screening, processing of waste for RDF
 - Rough sharp waste items
 - Trip Hazards due to pipes/ hoses
 - Overhead Transmission Lines
- Chemical hazards
 - Confined spaces/ covered compost pads
 - Inhalation/ ingestion/ skin contact
 - Chemical reactions within the stored mixed waste or waste windrow
- Biological hazards
 - Allergies from pathogen and airborne dust
 - Pests/ bugs at site

6. DISASTER MANAGEMENT PLAN

Disruption to the proposed project can be caused due to occurrence of frequent hazards like fires, electrical accidents and less frequent hazards like earthquakes, dust storm, and chemical spill or explosions.

Emergency prevention through good design, operation, maintenance and inspection are essential to reduce the probability of occurrence and consequential effect of such eventualities. However, it is not possible to totally eliminate such eventualities and random failures of equipment or human errors, omissions and unsafe acts cannot be ruled out. An essential part of major hazard control has therefore, to be concerned with mitigating the effects of such Emergency and restoration of normalcy at the earliest.

The overall objective of a disaster management plan is to make use of the combined resources at the site and outside services to

- Localize the emergency and if possible eliminate it;
- Minimize the effects of the accident on people and property;
- To rescue and provide medical treatment of casualties;
- Safeguard other people;
- Evacuate people to safe areas;
- Informing and collaborating with statutory authorities;
- Provide authoritative information to news media;
- Initially contain and ultimately bring the incident under control;
- Preserve relevant records and equipment for the subsequent enquiry into the cause and circumstances of the emergency;
- Investigating and taking steps to prevent reoccurrence

7. PROJECT BENEFITS

The proposed project designed to handle and manage municipal waste in an environmentally sustainable manner with an emphasis on maximizing resource use efficiency. Apart from a few insignificant impacts, there are also several project benefits due to commissioning of project as enlisted below.

- Compliance to the Municipal Solid Waste (Handling and Management) Rules, 2000 and amendments thereof
- Reduction in Greenhouse Gas Emissions
- Improved sanitation in the city
- Energy Conservation
- Usable Compost Product
- Supply of Refuse Derived Fuel (RDF)
- Economic Benefits to Local Municipality
- Increase in Business Opportunities

On commissioning, the project will contribute in improving sanitation conditions of the city, in compliance with the Municipal Solid Waste (Handling and Management) Rules, 2000 and amendments thereof.