
Executive Summary of
ENVIRONMENTAL IMPACT ASSESSMENT

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

Submitted to
Karnataka Urban Infrastructure Development
and Finance Corporation

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EXECUTIVE SUMMARY

1. INTRODUCTION

BBMP envisages to establish several Common Municipal Solid Waste Management Facilities (CMSWMF) in and around Bengaluru for environmentally sound handling, management and treatment of solid waste and to comply with the statutory requirements of the Municipal Solid Waste (Management and Handling) Rules, 2000 and its subsequent amendments. The proposed Subbarayanapalya CMSWMF is amongst one of the selected sites for development of such a facility which is situated at Survey. No. 143, Kumbalgood village, Kengeri Hobli, Bangalore South Taluk, Bengaluru (hereby referred to as the 'site'). It will cover an area of 3.8 hectares (38000 m²) and will handle about 200 TPD of municipal waste, which will be collected from areas within the RR Nagar and Bangalore South Zone. The focus of this facility will be to segregate, store, process, treat and dispose MSW in an environmentally sustainable manner with an emphasis on maximizing resource use efficiency.

This site was earlier used for dumping garbage since 2004-05 for about seven years. 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 Subbarayanapalya.

1.1 Project Description

The proposed CMSWMF site at Subbarayanapalya village is located at an elevation of 775 meters (2542 feet) and is sloping from West to East towards the natural nallah adjacent to the project site. The geographical coordinates of the proposed project boundary are given below:

Point	Latitude	Longitude
A	12°53'0.18"N	77°25'50.23"E
B	12°52'57.37"N	77°30'28.41"E
C	12°52'54.11"N	77°25'58.57"E
D	12°52'53.04"N	77°25'58.23"E
E	12°52'56.44"N	77°25'48.71"E

The site is located at a distance of 1.53 km in East direction from Bangalore-Mysore State Highway (SH-17) and at a distance of 10.20 km in East direction from National Highway (NH-209). The nearest Airport and Railway station is Kempegowda International Airport, Devanahally at a distance of 46km in North-East direction and Hejjala Railway Station at a distance of 3.92 km in South direction respectively. There are no National Parks and Wildlife Sanctuaries at a distance of 10 km from the project periphery.

1.2 Project Details

The project has been categorized under Item 7(i) as per EIA Notification of MoEF dated September 14, 2006 and subsequent amendments of notification No. S.O. 1598 (E).dated 25th June, 2014. The proposed project will fall under category 'B'; hence, it will be appraised by the State Environmental

Appraisal Committee (SEAC), Bengaluru Karnataka. The proposed facility will be spread over an area of 38000m² for setting up of project facilities such as Windrow Sheds, Compost Area, Inert Storage Area, Leachate collection system and Leachate Treatment Plant, Odour Control Plant, Recycling Waste, Green Belt, Rainwater Harvesting Area, Leachate Treatment Plant, Odour Control Plant, and other Miscellaneous facilities.

The proposed facility will be utilized for treatment of waste collected from 16 wards of RR Nagar and Bangalore South Zone. The finished product will be Compost (22.5 TPD), Plastic and other recyclables and RDF (64.3 TPD) which will be sent to different location by trucks.

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

Table 1: Salient Features of the project

Sl. No.	Item	Details
1	Project Type	Common Municipal Solid Waste Management Facility
2	Proposed waste treatment technology	Windrow composting in a closed shed
3	Project Cost	28.73 crores
4	Design Period	Designed for 10 years
5	Water requirement	51 KLD
6	Waste water generation	24 KLD (completely utilized within the site)
7	Source of water	Construction water will be sourced from treated wastewater sourced from authorized tanker supply and around 27 KLD water will be abstracted from borewells during Operation Phase.
8	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)

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 and secondary data review from established sources such as Indian Meteorological Department (IMD), Census of India, Survey of India, Karnataka Forest Department, 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 during mid December 2014 to mid-January, 2015. 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	<p>The Bangalore South district can be divided into rocky upland, plateau & flat topped hills at a general elevation of about 900 m above mean sea level (amsl) with its major part sloping towards south and south east forming Padi plains interspersed with hills all along the western part.</p> <p>The site has an average elevation of approx. 775 m. The site is sloping from West to East, towards a natural nala.</p>
Landuse	<p>Approximately 59.71% of the total study area is under agricultural land, 11.16 % is built up area, 6.8 % land under forest cover, 11.25% land under dense vegetation, 1.99 % under Waterbodies and 0.35% is occupied by Rivers.</p> <p>At the project site, built-up structures will be spread over 43.9 % of the total area, greenbelt and green cover will cover about 10.39 % area and 29.42% of the site area respectively and about 16.28 % will be open spaces.</p>
Drainage	<p>The Bangalore South taluk drains to the east into the South Pinakini river basin and to the west into the Arkavati river basin. The Vrishabhavati is the only minor river which originates in Bangalore City at Basavanagudi and flows in the Bangalore Urban district before joining the Arkavati River near Muduvadidurga.</p>
Climate and Meteorology	<p>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.</p>
Ambient Air Quality	<p>Ambient Air Quality Monitoring (AAQM) stations were set up at 6 locations in downwind, cross wind and upwind direction of the proposed project location.</p> <p>The average PM-10 and PM2.5 concentration recorded at all the sampling locations were within the prescribed CPCB limits of 100µg/m³. The recorded values for PM 10 and PM2.5 were in the range of 42.9- 56.8µg/m³ and 12.3- 18.3 µg/m³ respectively.</p> <p>The concentrations of sulphur dioxide (SO₂) and Nox in the region were observed to be in the range of 6.2µg/m³ - 9.2µg/m³ and 12 -17.9µg/m³. The carbon monoxide concentrations were observed to be slightly higher due to burning of domestic chullhas but below NAAQS limits of 2mg/m³ at all the sampling locations.</p>
Water Resources	<p>Six groundwater samples and two surface water samples were collected from the study area for analysis of existing water quality in the area. The Total Hardness values exceed the desirable limit of 300 mg/l at 3 locations indicating presence of hardwater. The presence of Total and Fecal coliforms in the ground water samples indicate that the water is contaminated with fecal matter.</p>
Soil Quality	<p>The analytical results indicate that the soil texture in the study area is soil texture in the study area is "loam". The iron, sodium, potassium and manganese content was observed to be higher as the soils were observed to be lateritic in nature.</p>
Ecology	<p>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 area consists of Tropical Thorn Scrub Forest type The common tree species observed were <i>Acacia nilotica cineraria</i>, <i>Tamarindus indica</i> and <i>Prosopis juliflora</i>. The most common shrub species were <i>Calotropis procera</i>, <i>Chromolenia sp</i>, and <i>Lantana camara</i>. The common grass species were <i>Cenchrus ciliaris</i>, <i>Cenchrus setigerus</i>, <i>Cynodon dactylon</i>, <i>Cyperus sp.</i>, <i>Dichanthium annulatum</i>, and <i>Heteropogon contortus</i>. There is no Wildlife Sanctuary, National Park or any other ecologically sensitive area within 10 km radius from the project periphery except Kumbalgudu State Forest boundary which is</p>

	at a distance of 5.11 km in South-West direction and Savandurga State Forest which is at a distance of 15.4 km in North-West direction from the project boundary.
Social Environment	There are 8 villages within 2 km radius from the project site. The overall literacy rate in the project area is about 71%. The study area lacks health care facilities. There are 3 primary health sub-centers, one each in Kolor, Ramohalli and Kumbalagodu. The main sources of drinking water for the residents surrounding the proposed project are Taps, wells, tanks, Tube-wells and Hand-pumps

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 **Table 3** below.

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

S.No	Parameter	Construction Phase	Operation Phase
1.	Air Quality	Dust emissions from site preparation, excavation, material handling and other construction activities at site, vehicular movement	Particulate emissions during waste tipping, windrows compost plant, RDF storage area, material handling, vehicular movement within the plant premises, truck movements on daily basis carrying waste
2.	Noise Quality	Noise generation from construction activities, construction equipment and vehicular movement	Noise from facility operation such as shredders, rotators, compactors, balers and vehicular movement
3.	Water Quality	Surface runoff from project site Oil/fuel and waste spills	<ul style="list-style-type: none"> Oil/fuel and waste spills. Leachate generation from the waste collection pit, windrows compost pads, pit washing and final closure from the old dump area and the mixed waste storage pits
4.	Land use and Aesthetics	Land development	With the proposed project, systematic and environmentally sound handling and management of solid waste will done.
5.	Topography	Site clearance and development	No significant change
6.	Ecology	Habitat disturbance during construction activity	No significant change
7.	Soil Quality	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 , Contamination of soil due to leachate percolation from the waste facility and the existing dump, Fuel and material spills
8.	Water Consumption	The treated wastewater sourced from authorized tanker supply will be utilised for the	The water requirement for the project during the operation phase has been estimated to 51 KLD out of which 24

		construction phase.	KLD will be met through utilization of leachate. The remaining 27 KLD water will be abstracted from bore wells present within the site.
9.	Traffic Pattern	Haul Truck/construction vehicle movement	Slight increase in traffic on Magadi Road and Dodd Aladmara Road due to daily movement of closed compacted trucks.
10.	Socio-economy	<ul style="list-style-type: none"> • Impacts on residents of Chikkelur Ramapura, Chikkelur Venkatapura, Kumbalgodu and Seshagiripura in the vicinity of the proposed project Site due to increase in noise levels due to, water logging, movement of vehicles and construction equipments • Increased job opportunity for locals 	<ul style="list-style-type: none"> • Positive impact on Aesthetics of the area due to replacement of existing dumpyard • Fixed source of income on monthly, weekly or daily basis for the rag pickers of the area, who otherwise depend upon the collection of recyclables from various dump sites across the city

4. ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed Common Municipal Solid Waste Management Facility (CMSWMF) at Subbarayanapalya 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 operation phase. A summary of proposed mitigation measures oriented towards effective environmental management including pollution prevention and control, waste minimisation and management, and Best Management Practice (BMP) to be adopted is given below in **Table 4**.

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.	Ambient Air Quality	<ul style="list-style-type: none"> • Sprinkling of water on earthworks, material haulage and transportation routes in the project area • Transportation of raw materials like soil and fine aggregates in covered vehicles to prevent fugitive emissions • Vehicle speed to be restricted to 25 km/h on unpaved roads. • Proper maintenance of machines and vehicles shall be undertaken • All vehicles utilized in transportation to be checked for valid Pollution under Control Certificate (PUC). • Generators to be used only as backup source.
2.	Water Resources and Quality	<ul style="list-style-type: none"> • Awareness on optimal water consumption shall be provided to the labourers. • Concrete structures shall be sprayed with water to allow curing and reduce flowing away. After curing, the concrete structures shall be painted with curing chemical to reduce further dependence of water for curing. • Adequate number of toilets shall be provided onsite with soak pit and septic tanks for disposal of sewage • Provision for leachate collection sump and pump for treatment of leachate during handling of existing waste at Site; • Storm water and Garland drains will be constructed to prevent the runoff from stockpiles generated during excavation ; • An impervious cover over the nala/ stormwater drain on Eastern Boundary of project site entering through a culvert will be made to prevent the contaminated surface runoff carrying the construction waste materials/ other pollutants to enter the nala; • All stacking and loading areas will be made impervious and provided with proper garland drains equipped with baffles to prevent run off from the site to contaminate surface or ground water resources; • No discharge of wastewater to soil and ground water body will be done; and • Leak proof containers will be used for storage and transportation of oil and grease to prevent surface and groundwater contamination
3.	Topography and landscape	<ul style="list-style-type: none"> • During site clearance and levelling, minimum filling and cutting will be done,; • Construction of diversion dykes to channel runoff around the excavated site will be done to avoid surface runoff of excavated material; • Movement and parking of heavy machinery and other vehicles will be restricted to identified routes; thereby limiting the possibility of compaction; • Dozing of spillover garbage and waste containment will be restricted to area within the site; • Construction footprint will be well defined; • The inert storage area has been planned in near to RDF Storage Area which has natural depression to minimize filling operations and to stabilize topography

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
4.	Aesthetics	<ul style="list-style-type: none"> • Sheet barriers will be provided along the site boundary to prevent any visual intrusion; • No disposal of construction waste outside the project area will be allowed; and • Good housekeeping will be practised and all construction material will be stored in designated place for storage; • Construction of greenbelt of 6m width will improve the overall aesthetics of the site; and • The trees will also act as windbreaks minimizing the dust-laden winds reaching the nearby habitation.
5.	Soil Quality and Resources	<ul style="list-style-type: none"> • Topsoil (upper 30 cm) shall be removed and stored prior to commencement of bulk earthwork and reused later for landscaping • The leachate from the existing dumpyard will be made in a leachate collection system with sump and pumping mechanism; • Attempts will be made to keep the waste segregated into different heaps as far as possible so that their further gradation and reuse is facilitated.; • Construction wastes from site such as metal cuttings debris, plastic packing material, wooden logs etc will be segregated and kept in specially identified waste bins; • Potentially hazardous waste shall be segregated from non-hazardous construction site debris
6.	Traffic and transport	<ul style="list-style-type: none"> • Traffic and heavy machinery movement schedule will be communicated clearly to avoid disturbance to local community.. • Proper signage around the construction areas to be put up to facilitate smooth traffic movement. • Dedicated entry and exit routes from the construction site will be provided for the construction vehicles. • Dedicated parking area for project vehicles. • Restricting speed of vehicles to 25 km/hr
7.	Ambient Noise Quality	<ul style="list-style-type: none"> • The construction areas shall be provided with sheet barriers or temporary walls along the boundary close to any habitations; • Rubber padding shall be provided in the construction machinery for vibration control; • Acoustic enclosures and noise barriers will be provided in areas of high noise generating sources; • High noise generating activity shall not be permitted during night hours
8.	Socio-economics	<ul style="list-style-type: none"> • No noise generating activity will be permitted during night hours. The greenbelt planned in the periphery of the proposed project will limit noise reaching outside the premises. • Adequate drainage shall be provided so that water does not become stagnant around the site.
9.	Occupational Health and Safety	<ul style="list-style-type: none"> • Good housekeeping practices shall be followed. • Manual transfer of heavy loads will be minimized • Measures such as job rotations and stretch breaks to be adopted. • Proper signage to be provided around construction site. • Use of Personal Protection Equipment (PPEs) to be mandated at work site. • Workers to be provided with health and safety training.

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
		<ul style="list-style-type: none"> • First aid and essential medical services to be provided at site.
10.	Ecology	<ul style="list-style-type: none"> • Monitoring and supervision of the activities of the contractors engaged during construction phase of the project; • Ensuring that no vegetation is removed from area outside the project foot print; • Movement of vehicles will be limited to day time; • Minimum levels of noise during construction activities will be maintained as well as illumination and night operations will be restricted
OPERATION PHASE		
11.	Odour control	<ul style="list-style-type: none"> • An odour control system is also proposed to be set up over the compost sheds, which will comprise of ventilation ducts and exhaust fans. • A set of biofilters will be provided for odour control over areas such as waste reception pit, presorting area, windrow composting pads and curing sheds and screening and packing. • Turning of compost will be done twice a week to ensure aerobic conditions. • Use of windrow turning equipment that is specially designed to minimize air emissions • Moisture content of the windrow will be maintained at 40-60% and temperature will be maintained at 60-70 °C. The leachate generated will be re-circulated onto to the compost pads for this purpose. • Closed shed for Compost Plant is planned to minimise generation of leachate during rainy season and containment of any odour • Green belt of 5- 6m width in 3 rows around the periphery of the Site
12.	Air Quality	<ul style="list-style-type: none"> • Stack heights for DG sets to be maintained as per CPCB/MoEF norms. • Covered transportation of segregated waste and paving the disposal routes for dust control
13.	Potential Fire hazard in windrow pads	<ul style="list-style-type: none"> • Maintenance of the moisture content will be done to control windrow compost temperature and prevent fires. • Properly designed fire suppression system with sufficient water capacity and at sufficient pressures • Portable fire extinguishers and fire control equipment in proper working condition, will be installed at the facility
14.	Greenhouse effect	<ul style="list-style-type: none"> • Aerobic environment will be maintained with proper moisture content to encourage aerobic decomposition of the organics and prevent production of methane.
15.	Ambient Noise Quality	<ul style="list-style-type: none"> • Proper maintenance of machineries to be carried out. High noise activities shall not be permitted during night hours. • Acoustic enclosures shall be provided for all noise producing equipments such as shredders, DG sets generator 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. • Provision of peripheral green belt will also attenuate noise

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
16.	Water Resources and Quality	<ul style="list-style-type: none"> • Provisions for rainwater harvesting from rooftop, paved areas and landscaping areas • The domestic waste water will be sent to septic tank followed by soak pit • Runoff from the tipping areas will be collected separately and managed as leachate, conveyed via leachate collection drain upto leachate collection sump • The drain crossing the Site through a culvert will be covered and impervious lining shall be provided to prevent entry of surface water within the Site to enter the drain • There will be provisions for leachate collection system with sump and pump in the existing garbage dump and the leachate. treatment will be carried out in the Leachate Treatment Plant proposed for this facility as per the required disposal standards for post closure period • Surface drains all around the final closure area of the existing garbage dump will be provided • The leachate will be treated in a Leachate Treatment Plant (LTP) and recycled for utilization in Vehicle washing, greenbelt development and floor washing
17.	Soil Quality	<ul style="list-style-type: none"> • Windrow areas will be provided with an impermeable concrete base. Installation and maintaining effective run-off controls, Drip trays to be used during vehicular/equipment maintenance and during refueling operations • Dozing of spillover garbage and waste containment will be done to a restricted area within the site; and • Final closure/capping of the existing dump after dozing and leachate treatment will be carried out as per MSW Rules 2000 viz., providing Barrier layer compacted clay or ammended soil (k <10-7 cm/sec) of 60 cms thickness, providing drainage layer with grannular soil of about 45 cms thick with HDPE perforated pipes for gas, providing surface layer (30 cms thick top soil) for vegetation & erosion control.
18.	Ecology	<ul style="list-style-type: none"> • A green cover comprising of landscaping and greenbelt will of 3 tiers be developed along the periphery of the proposed project in around 39% of the area in 6 m width • Native species and healthy seedlings will be planted at intervals of 4 × 4-m in 60 × 60 × 60-cm size pits filled with topsoil • Attempts will be made to ensure that all open spaces, where tree plantation may not possible, will be covered with shrubs and grass to prevent erosion of topsoil.
19.	Traffic and Transport	<ul style="list-style-type: none"> • A well defined schedule and route will be followed by the waste carrying trucks. • Proper signages will put up near the proposed facility giving route directions • No parking will be allowed outside the facility premises. • Vehicles will be parked in the designated slots within the premises. • Entry and exit routes from the premises will be clearly marked • Adequate lighting and reflective boards will be put up for night time safety.

Sl.No.	Component	Suggested Management Plan/ Mitigation Measures
20.	Socio-economic aspect	<ul style="list-style-type: none">• Maximum efforts will be made to provide job opportunities to local residents during construction and operation phase.• Training to Rag Pickers and Workers• Awareness campaigns for surrounding villages

An Environmental Management Cell (EMC) will be established for the project for the effective implementation of environmental mitigation measures and management plans. 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 operation phase of the project, 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 activities during construction phase and for Common Solid Waste Management Facility during 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 may be categories as below:

- Physical hazards
 - Fire hazard in windrow composting
 - Heavy equipment 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
- Improvement in Aesthetics and reduction in Greenhouse Gas Emissions
- Transformation of an existing dumpyard to a scientific Waste Management Facility
- Energy Conservation
- Usable Compost Product
- Supply of Refuse Derived Fuel (RDF)
- Economic Benefits to Local Municipality
- Increase in Business Opportunities

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