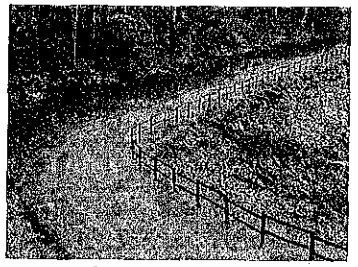
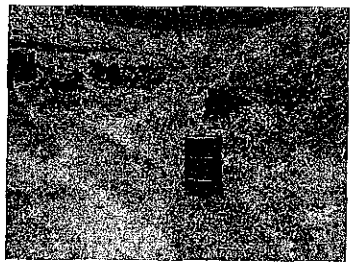
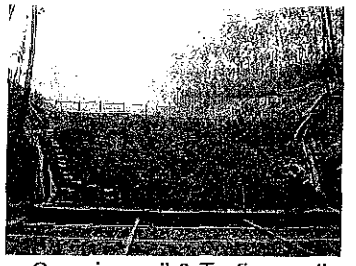


Access road

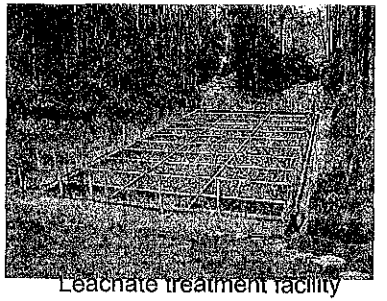


Gas ventilating facility

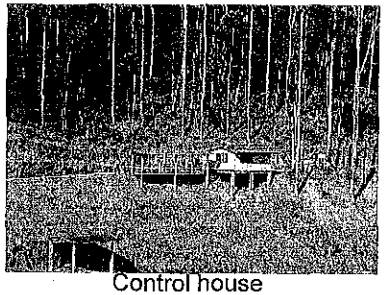


Covering soil & Turfing on the slope where waste was discharged properly

Leachate collection facility



Leachate treatment facility



Control house

Storm water drainage

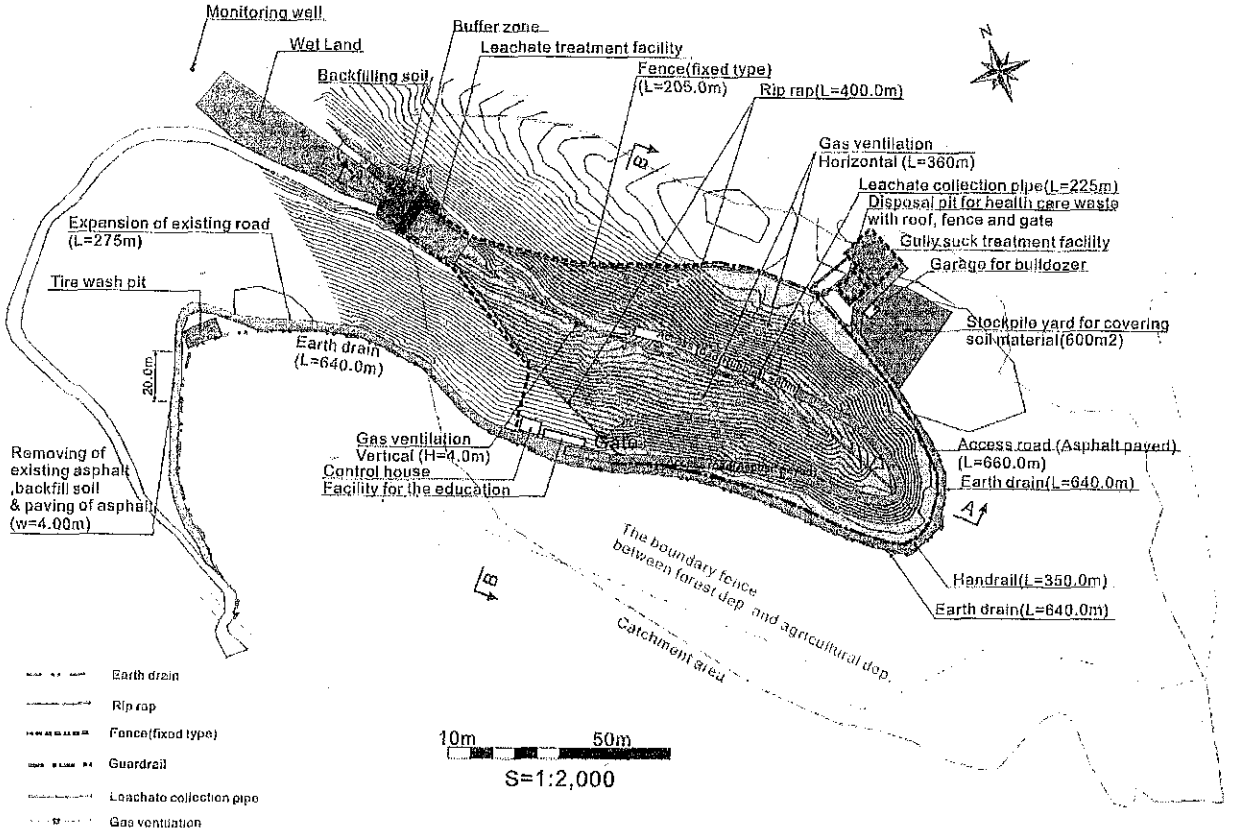


Figure 5-1: Sample Layout of Plan of New Landfill Site

5.4 Landfill Section

Landfills may have different types of sections depending on the topography of the area. The landfills may mainly take the following two forms.

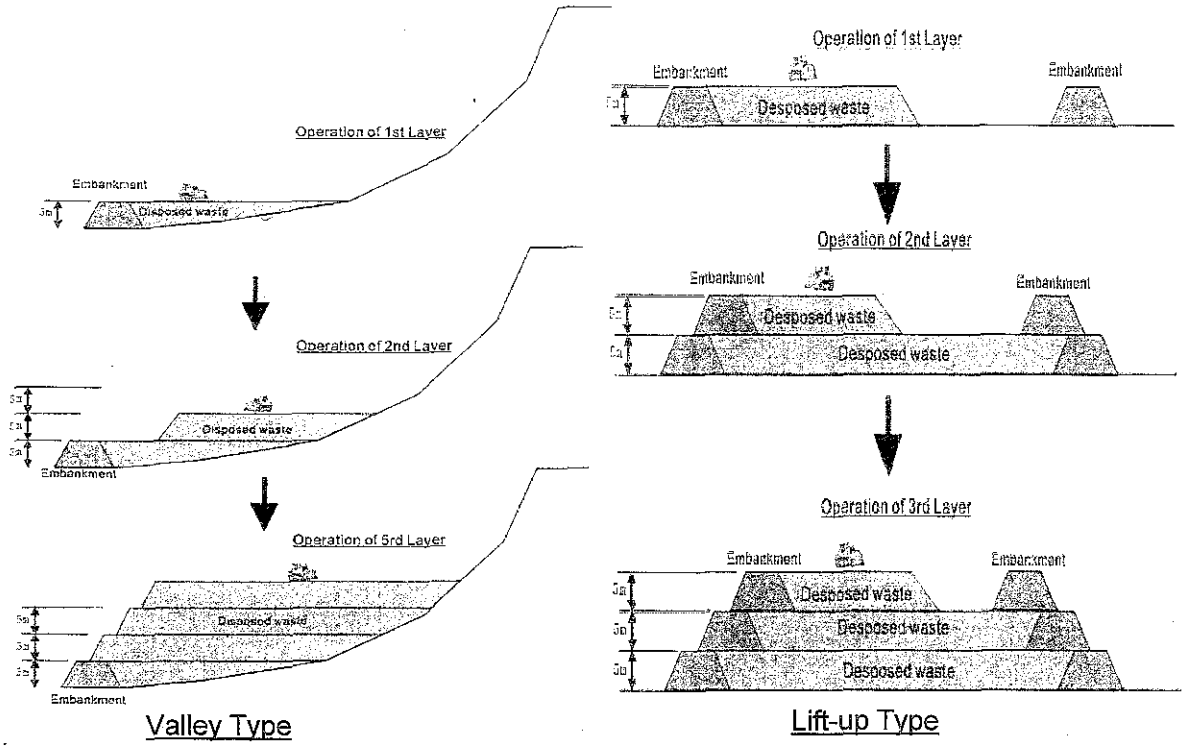


Figure 5-2: Landfill Type

Valley type landfill: Depressions, low-lying areas, valleys, canyons, ravines, dry borrow pits, etc. have been used for landfills. The techniques to place and compact solid wastes in such landfills vary with the geometry of the site, the characteristics of the available cover material, the hydrology and geology of the site, the type of leachate and gas control facilities to be used, and the access to the site. Control of surface drainage is often a critical factor in the development of canyon/depression sites.

Lift-up type landfill: The area landfill is used when the terrain is unsuitable for the excavation of trenches in which to place the solid waste. High-groundwater conditions necessitate the use of area-type landfills. Site preparation includes the installation of a liner and leachate control system. Cover material must be hauled by truck or earthmoving from adjacent land or from borrow-pit areas.

5.5 Liner system

Leachate control within a landfill involves the following steps: (a) prevention of migration of leachate from landfill site and landfill base to the subsoil by a suitable liner system; and (b)

drainage of leachate collected at the base of a landfill to the side of the landfill and removal of the leachate from within the landfill.

Liner systems comprise a combination of leachate drainage and collection layer(s) and barrier layer(s). A competent liner system should have low permeability. A liner system may comprise of a combination of barrier materials such as natural clays, amended soils and flexible geomembranes. The two types of liner systems usually adopted for Municipal Solid Waste are described below:

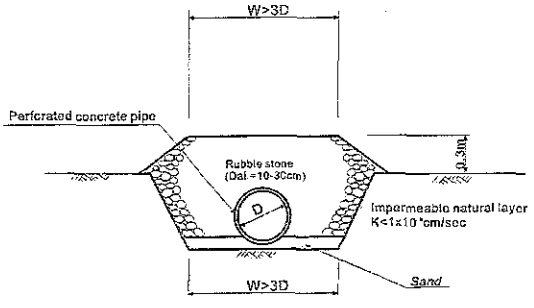
Single liner system: Such a system comprises a single primary barrier which is a natural clay layer or bedrock. The thickness of the natural clay layer or bedrock is more than 1 meter having permeability (K) of less than 10^{-5} cm/sec or a Lugeon value of more than 5.

Single composite liner system: If a natural impermeable layer cannot be found at the site, a composite liner which consists of geo-textile, flexible geomembranes and sand protection should be adopted.

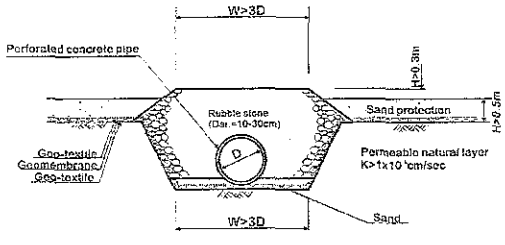
a.1 Leachate collection pipe network

The leachate collection pipe network is installed to achieve the following:

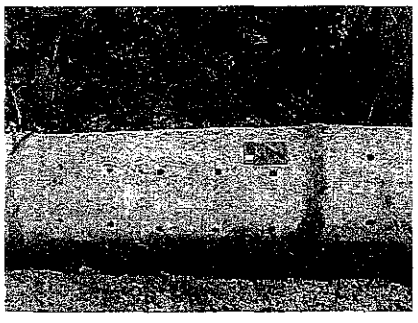
1) To collect and transport leachate generated at the site to the leachate treatment facility.
2) To naturally supply air into the inside of the landfill to accelerate the waste decomposition process.



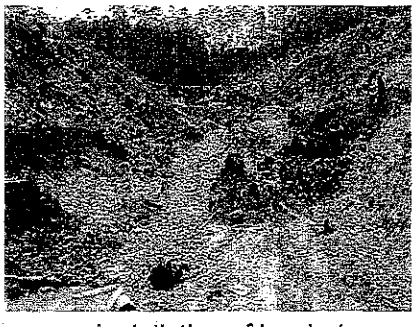
Leachate collection pipe for single liner system



Leachate collection pipe for single composite liner system



Perforated pipe



Installation of leachate collection facility

Figure 5-3: Leachate Collection Facility

Instead of an artificial liner which consists of geomembranes and geo-textile, a bentonite liner is also recommended.

The required thickness of the bentonite liner is at least 0.1m (Danish standard). It consists of dry sand mixed at 20 to 25 % by weight of bentonite, e.g. in a concrete mixer. Other careful mixing may be adopted provided test results have proved it to be satisfactory.

It should be noted that it is difficult to obtain a completely homogeneous mixture unless the soil is very dry, which is difficult to compact after mixing. Thus, the bentonite liner may be constructed by laying the mixed bentonite/sand on the surface with the required slope gradient. The sand protection layer should be laid immediately above the bentonite liner. Finally, the sand protection layer should be watered and compacted.

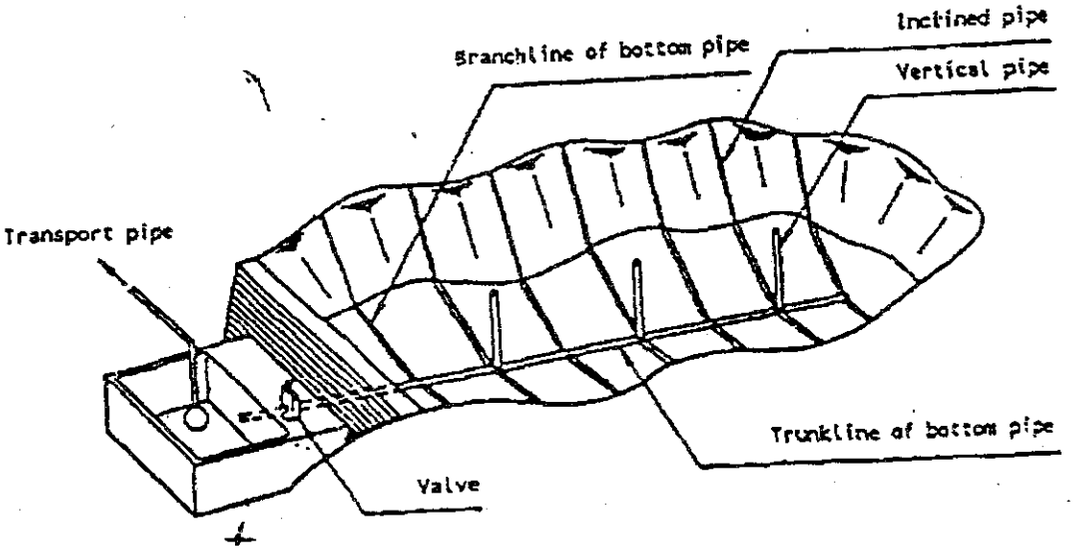


Figure 5-4: Concept of Leachate Treatment Facility

a.2 Leachate Treatment process

The selection of the most suitable leachate treatment system for the site is very important in the project planning because there are many available systems which have different advantages and disadvantages. The following three points were mainly considered in the selection of the system.

- Required area
- Required technical skill for operation
- Required operation and maintenance cost

Table 5-1 compares the suitability of five common methods for the site.

Table 5-1: Comparison of Leachate Treatment Methods

	Activated Sludge System	**Aerobic Pond System**	**Rotating Biological Contactor System**	**Recirculation System**	**Combined system which consist of coconuts fibre biological conductor, *charcoal filter and wet land***
Description	The activated process is a continuous-flowing, aerobic *biological process for the treatment* of domestic and biodegradable industrial wastewaters. The process provides a high-quality effluent and is characterized by the suspension of microorganisms, which are maintained in a relatively homogeneous state with the wastewater by mixing induced by the aeration system. The overall treatment process will include preliminary, and often primary, treatment before the aeration basin(s). The mixed liquor is discharged to a secondary clarifier where the microorganisms settle out and are recycled to the aeration basin. Excess sludge is piped to separate sludge-handling processes. The clarifier overflow proceeds to disinfection and final discharge or to supplemental treatment, if required.	Historically, aerobic wastewater stabilization pond systems have been a *principal biological treatment* method for a variety of wastewaters ranging from residential domestic to complex industrial. They may be used alone or in combination with other treatment processes. The advent of aeration via mechanical *sources added yet a broader use of* pond systems. The three principle types of aerobic ponds are 1. Aerobic 2. Facultative 3. Aerated Furthermore, pond systems are characterized hydraulically as discharge, controlled discharge or retention (no discharge to surface waters).	A rotating biological contactor (RBC) is an attached-growth process wherein the media are rotated through a basin of wastewater. The microorganisms are attached to large-diameter synthetic mounted on a horizontal shaft and placed at about 40% submergence in a contoured-bottom tank. Generally, *the media are some 10 to 12 ft* (3-3.5 m) in diameter and rotate at a peripheral velocity of 60 ft/min (0.3 m/s). The preferred temperature range for an RBC system is 55 to 90°F (13 to 32°C). Thus, in colder climates the *units are enclosed for climatic* control.	The process of recirculation is as follows. 1. Leachate collection by perforated pipe at the landfill site 2. Retention of leachate at a pond 3. Pumping up leachate for landfill site 4. Distribution of leachate at the landfill site The leachate is treated by contacting with waste and evaporated through the recirculation process. Advantages: 1. The process of landfill stabilisation is accelerated 2. The constituents of the leachate *are attenuated by biological*, chemical and physical changes occurring with the landfill. Disadvantages: 1. Not applicable for the area having low evaporation 2. Poor operation makes the disposal area muddy and *inaccessible*.	The coconut fibre biological contactor system is a continuous-flow, Anaerobic biological process for the treatment of domestic and biodegradable industrial wastewaters. The system is introduced by the Rubber Research Institute of Sri Lanka for rubber effluent treatment but applicable to any biodegradable wastewater. The special arrangement of Coconut fibre is called Bio-Brush that gives the structural stability to hold the thrust of biomass accumulation and gas formation on surface of fibre, leaving enough void space for *releasing gas and mixing of* hydraulic flow. To increase the overall efficiency of the treatment system, the treated wastewater is further purified through a Charcoal filter followed by a Constructed Wetland. The system operates with *gravity flow without any moving* parts consequently minimum maintenance requirement.
Required technical skill for operation	High degree of technical skill required.	A simple technical skill required.	A simple technical skill is required.	A simple technical skill is required.	A simple technical skill required.
O&M cost	Very expensive	Cheap	Expensive	Cheap	Cheap
Area for leachate treatment facility	Enough for the facility. This system requires an area of less than 250m^2	Not enough for the facility. This system requires an area of more than 250m^2	Enough for the facility. This system requires an area of less than 250m^2.	Enough for the facility. This system requires an area of less than 250m^2.	Enough for the facility. This system requires an area of less than 250m^2

5.6 The Other Facilities for Landfill Operation

a.1 Bench (terrace)

The purpose of a bench is as follows:

1) To protect the slope by intercepting runoff water flowing on the slope
2) To provide enough space for the interceptor drain on berms
3) To provide enough working space for slope maintenance
4) To keep the waste filling slope stable

The bench plan is as follows:

- Every 4 meters in height
- Bench width of 2 meters

The purpose of the leachate collection facility on the bench is to collect seeping leachate from the relocated landfill site.

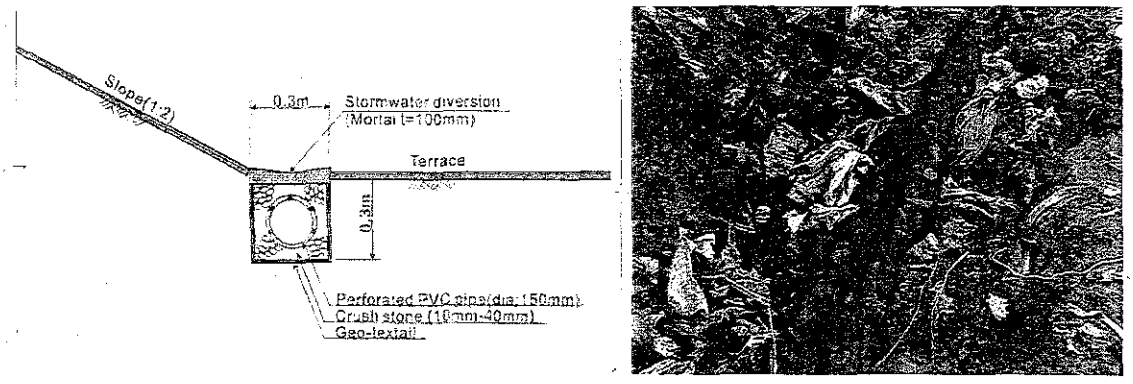


Figure 5-5: Leachate Collection Facility on the Bench

a.2 Turfing

The outside of the slope of the waste filling is turfed for the following purposes:

1) Protection of the slope from erosion by runoff water
2) Maintenance of the good view

a.3 Fence (movable type)

The movable fence is placed depending on the landfill operation to prevent waste from scattering outside of the site. The movable fence is a temporary facility; therefore, a cheap and durable material such as bamboo is recommended to be used as the poles of fence.

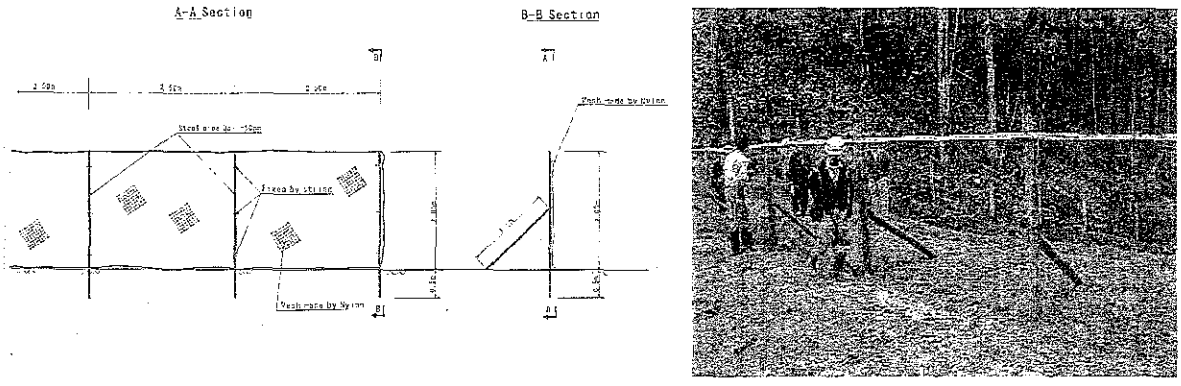


Figure 5-6: Fence (Movable Type)

a.4 Storm Water Drain

The storm water drain is installed for the following purposes:

1) Minimization of leachate generation by intercepting runoff water into the landfill site
2) Maintenance of access road
3) Provision of a guide for the landfill slope

A riprap lined drain is provided along the slope of the waste filling area.

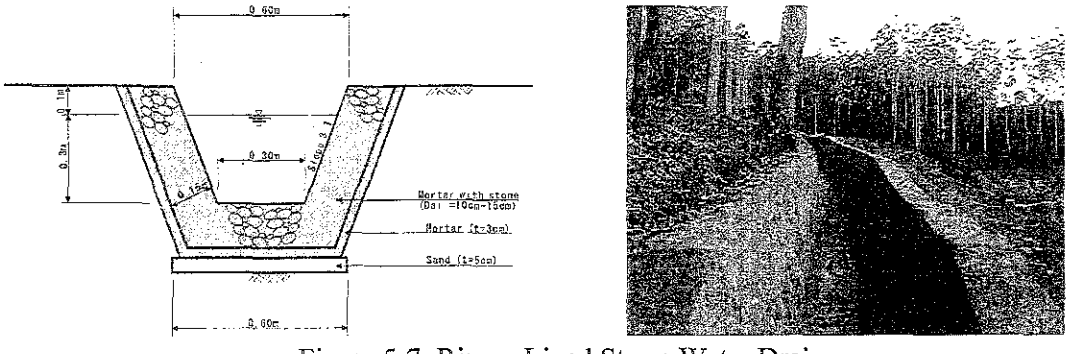


Figure 5-7: Riprap Lined Storm Water Drain

a.5 Gas Ventilating Facility

The gas ventilating facility is provided for the following purposes:

1) Exhaustion of the landfill gas generated in the landfilled waste to minimize the risk of gas explosion
2) Acceleration of the waste decomposition process by supplying air into the landfilled waste through a gas ventilating facility (semi-aerobic type)

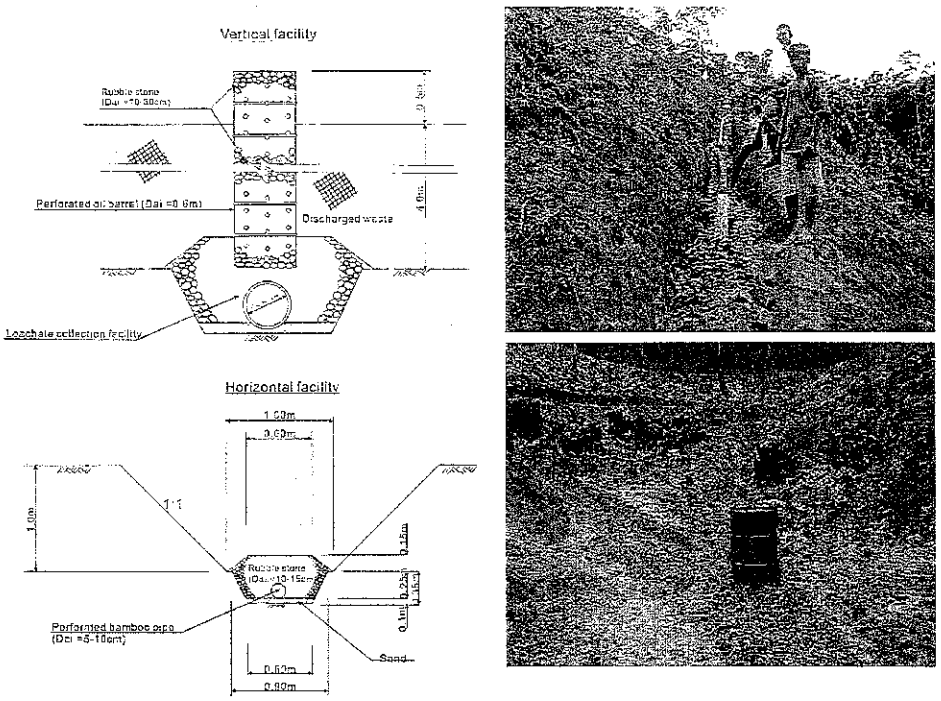


Figure 5-8: Gas Venting Facility

a.6 Disposal Pit for Healthcare Waste

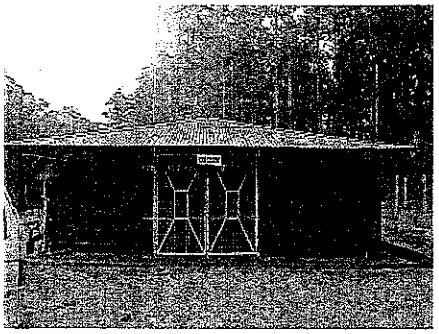
The disposal pit for healthcare waste is constructed separately. It receives the following wastes which require special care for handling.

- Syringes
- Medical tools and goods which contacted blood

The disposal pit is completely surrounded by a gate and a fence to ensure nobody except the landfill staff can enter.

In order to avoid the generation of leachate from healthcare waste, the following facilities to prevent the entry of runoff water into the site is provided.

1) A roof to cover the whole disposal pit
2) A drain surrounding the whole disposal pit to intercept the runoff water



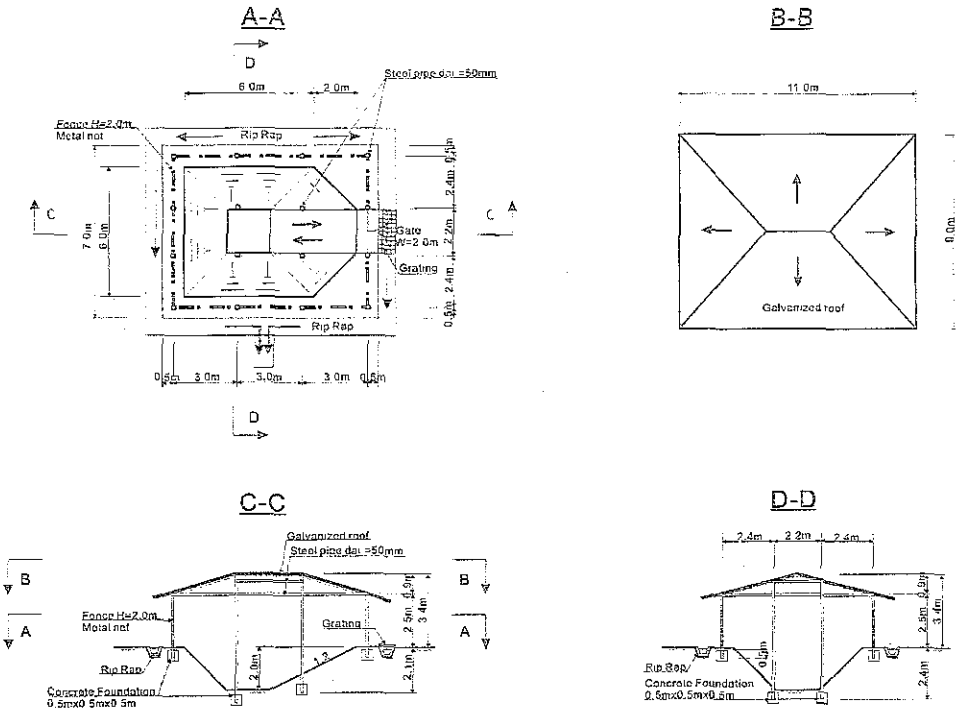


Figure 5-9: Disposal Pit for Healthcare Waste

a.7 Tire Wash Pit

The tires of collection vehicles are washed in order to remove any attached waste or mud.

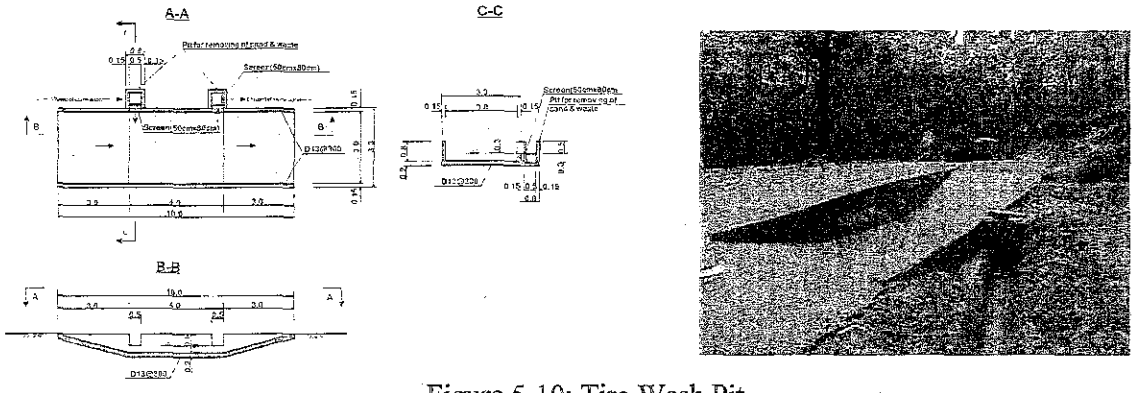


Figure 5-10: Tire Wash Pit

a.8 Administrative Facilities

1) A site office is built to provide a proper space for administrative work, a rest space, and a sanitary facility for employees in the landfill site.
2) A store house is built to keep tools, materials, safety goods, etc.
3) A garage for the bulldozer is built to secure and to protect it.

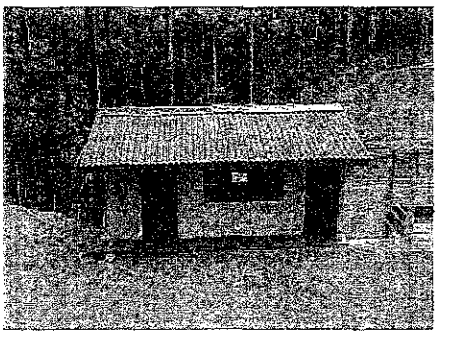


Figure 5-11: Administrative Facilities

a.9 Security Facilities

A gate and fences are constructed to control the entry to the site. The fences function as a waste scattering net as well.

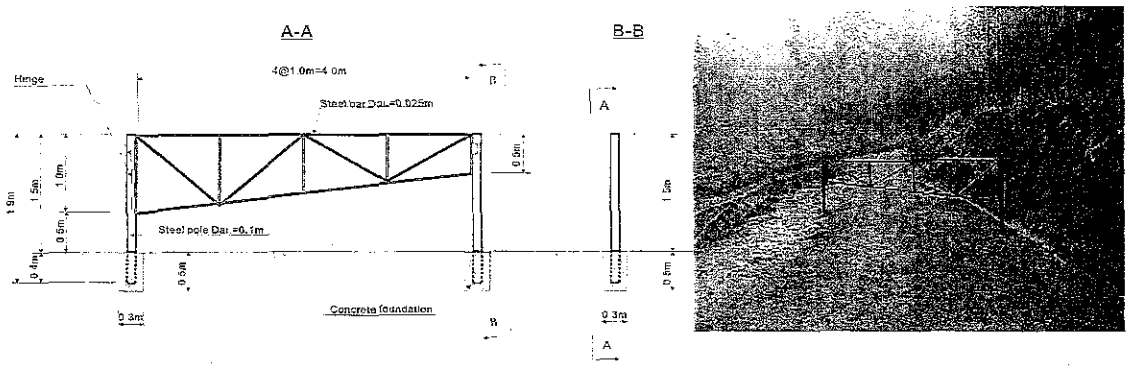


Figure 5-12: Gate

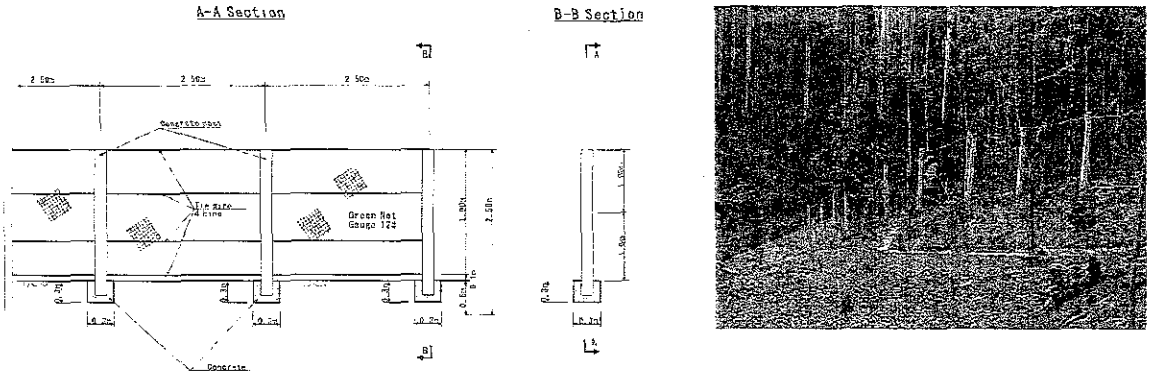


Figure 5-13: Fence (Fixed Type)

Safety Facility

A handrail is provided to protect people from falling down from the top of slope into the disposal area.

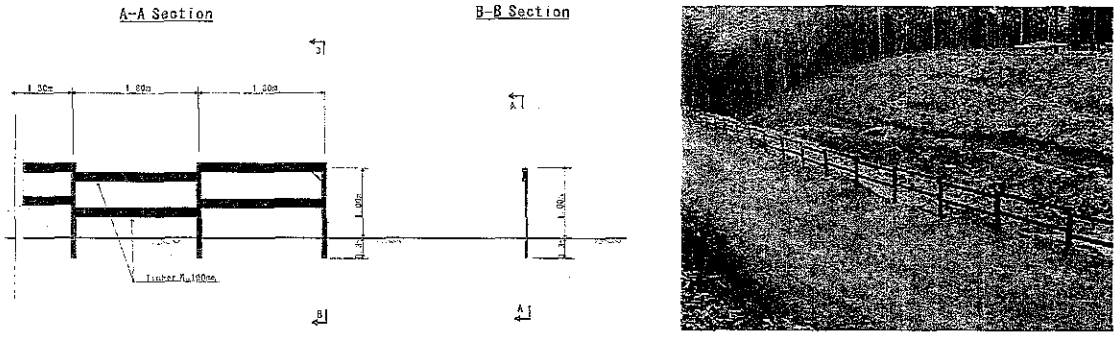


Figure 5-14: Handrail

a.11 Access Road

Provision of a good access road is very important for a landfilling operation because many waste collection vehicles have to access the disposal area even on wet days. It has two benefits:

1) Improvement of waste transportation work

2) Prolonging the life years of waste collection vehicles

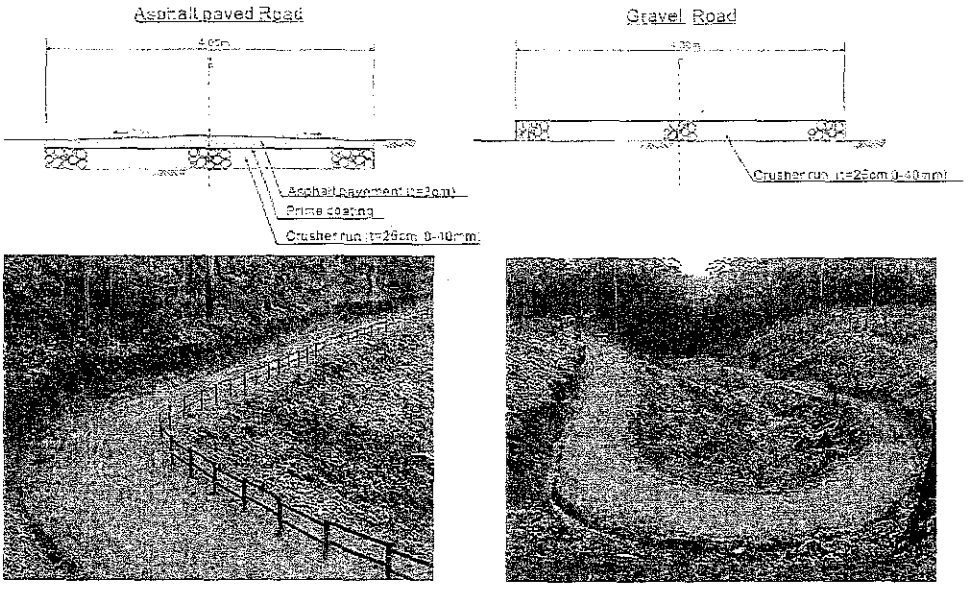


Figure 5-15: Typical Cross Section and Image Photo of Access Road

6 Improvement Plan and Design for the Existing Landfill Site

6.1 Extended Design Life

An extended design life of the existing landfill site comprises of an 'extended active period' and a 'closure and post-closure' period. The 'extended active period' depends on the topography, social condition, operation and maintenance. The 'closure and post-closure' period for which a landfill will be monitored and maintained will be 25 years after the 'active period' is completed.

6.2 Waste Volume and Extended Landfill Capacity

The volume of waste to be placed in a landfill will be computed for the 'active' period of the landfill, taking into account the anticipated increase in the rate of waste generation on the basis of past records or the population growth rate.

The required landfill capacity must be significantly greater than the accommodated waste volume. The actual capacity of the landfill will depend upon the volume occupied by the cover

material (daily, intermediate and final cover) as well as the compacted density of the waste. In addition, the amount of settlement a waste will undergo due to overburden stress and due to biodegradation should also be taken into account.

The density of waste varies on account of large variations in waste composition, the degree of compaction and the state of decomposition. Densities may range from as low as 0.4 t/m^3 to 1.25 t/m^3. For planning purposes, a density of 0.85 t/m^3 may be adopted for biodegradable wastes with higher values (typically 1.1 t/ m^3) for inert waste.[3]

The total landfill area should be approximately 15% more than the area required for landfilling to accommodate all infrastructure and support facilities as well as to allow the formation of a green belt around the landfill.

Landfill heights are reported to vary from less than 5 m to well above 30 m.

6.3 Landfill Layout

A landfill site will comprise the area in which the waste will be filled as well as an additional area for support facilities. Within the area to be filled, work may proceed in phases with only a part of the area under active operation. The following facilities must be located within the site:

(a) Access road
(b) Garage for heavy equipment
(c) Weighing scale (if necessary)
(d) Control house & facility for visitors
(e) Waste inspection and transfer station(if used)
(f) Temporary waste storage and/or disposal sites for special wastes
(g) Areas to be used for waste processing (if used)
(h) Fence and gate to demarcate
(i) Drainage facilities (for diversion of stormwater)
(j) Landfill gas management facilities
(k) Leachate collection & treatment facilities
(l) Tire wash pit (if possible)
(m) Monitoring wells (if possible)

[3] (Source: Manual on Municipal Solid Waste Management (first edition), Central Public Health and Environmental Engineering Organization (CPHEEO), Ministry of Urban Development, Government of India, New Delhi, May 2000)

6.4 Improved Landfill Section

Existing landfills may have different types of sections depending on the topography of the area. The existing landfills may mainly be improved to the following two forms:

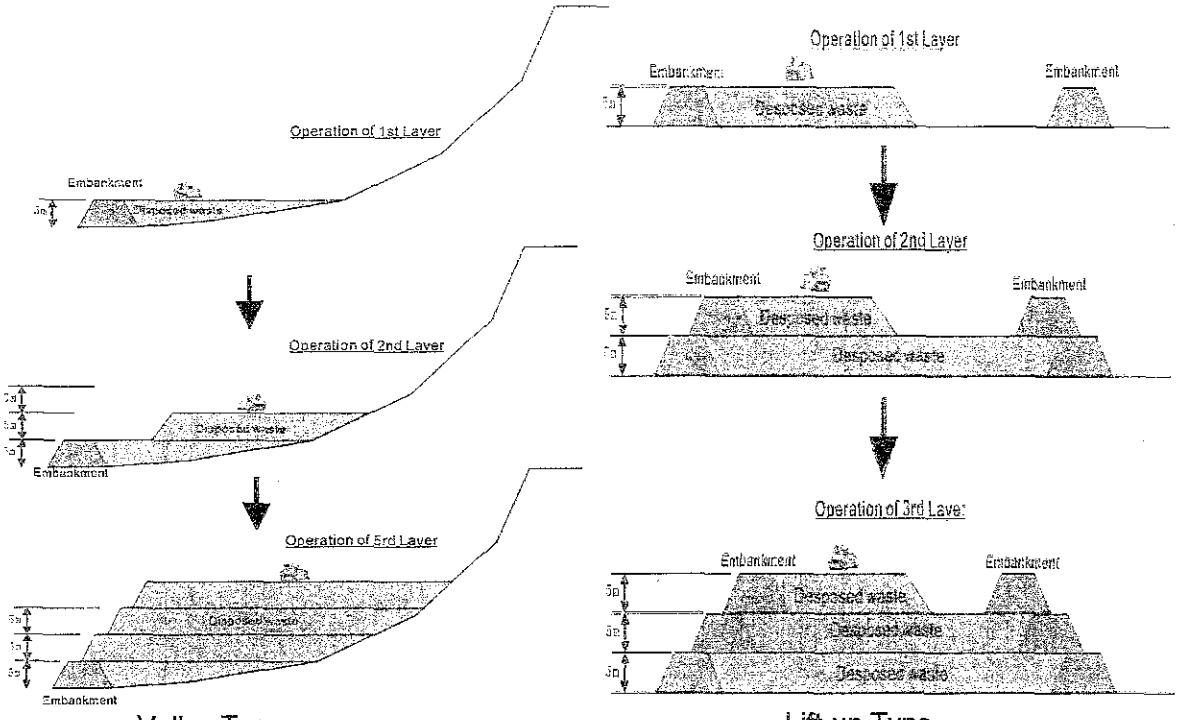


Figure 6-1: Landfill Type

Valley type landfill: Depressions, low-lying areas, valleys, canyons, ravines, dry borrow pits, etc. have been used for existing landfills. The techniques to place and compact solid wastes in such landfills vary with the geometry of the site, the characteristics of the available cover material, the hydrology and geology of the site, the type of leachate and gas control facilities to be used, and the access to the site.

The relocation of existing waste for the construction of embankment is useful in terms of construction cost, extension of design life and operation of the site, while the control of surface drainage is often a critical factor in the development of canyon/depression sites.

Lift-up type landfill: The area landfill is used when the terrain is unsuitable for the excavation of trenches in which to place the solid waste. High-groundwater conditions necessitate the use of area-type landfills. Cover material must be hauled by truck or earthmoving from adjacent land or from borrow-pit areas. The relocation of existing waste for the construction of embankment is useful in terms of construction cost, extension of design life and operation of the site.

6.5 Leachate Collection and Treatment System at Existing Landfill

Once the waste is discharged to the existing landfill, it is not practicable to install the liner systems and the drainage of all leachate collected at the bottom of the existing landfill in terms of construction cost. Therefore, covering soil on the existing waste is useful in order to reduce the generation of leachate, while the drainage along the existing landfill is effective in order to collect seepage leachate and divert storm water. The concept of the leachate treatment process is described in section 5.5

7 Example of Improvement Plan and Design of Existing Landfill

The pilot project implemented by Kandy Municipal Council and Japan International Corporation Agency (JICA) from July 2003 to October 2003 introduced the mitigation technology for environmental pollution at the existing landfill site and the structure of facilities of the sanitary landfill site.

a. Conceptual design of the landfill facility, extended capacity and life span

Figure 7-1 shows the condition of Gohagoda Landfill Site before the Pilot Project, while Figure 7-2 and Figure 7-3 show the conceptual lift-up type design of the improved Gohagoda Landfill Site. The extended capacity of the improved Gohagoda site is 2-3 years.

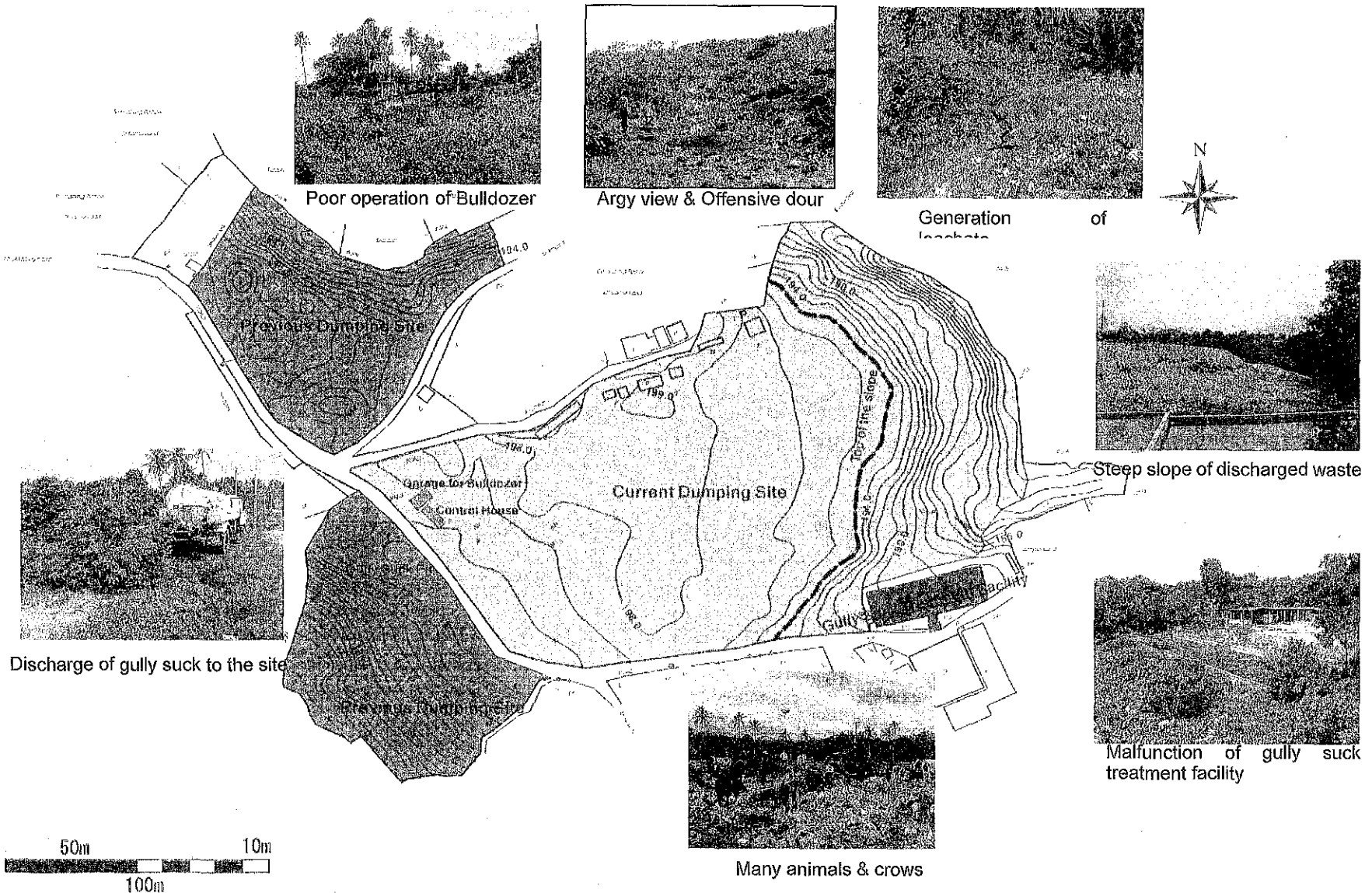


Figure 7-1: Condition of Gohagoda Landfill Site before Pilot Project

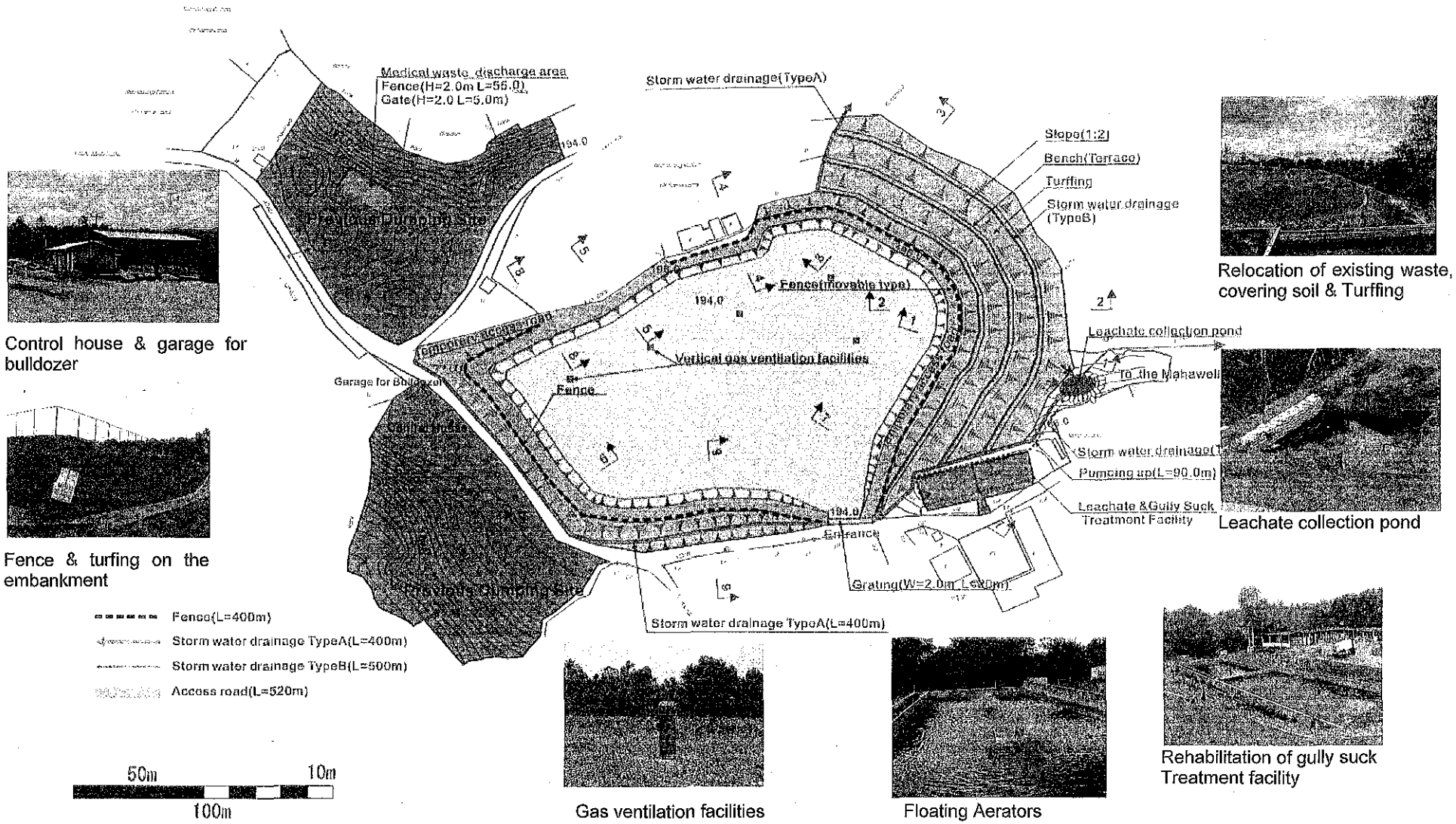


Figure 7-2: Layout of Improved Gohagoda Landfill Site

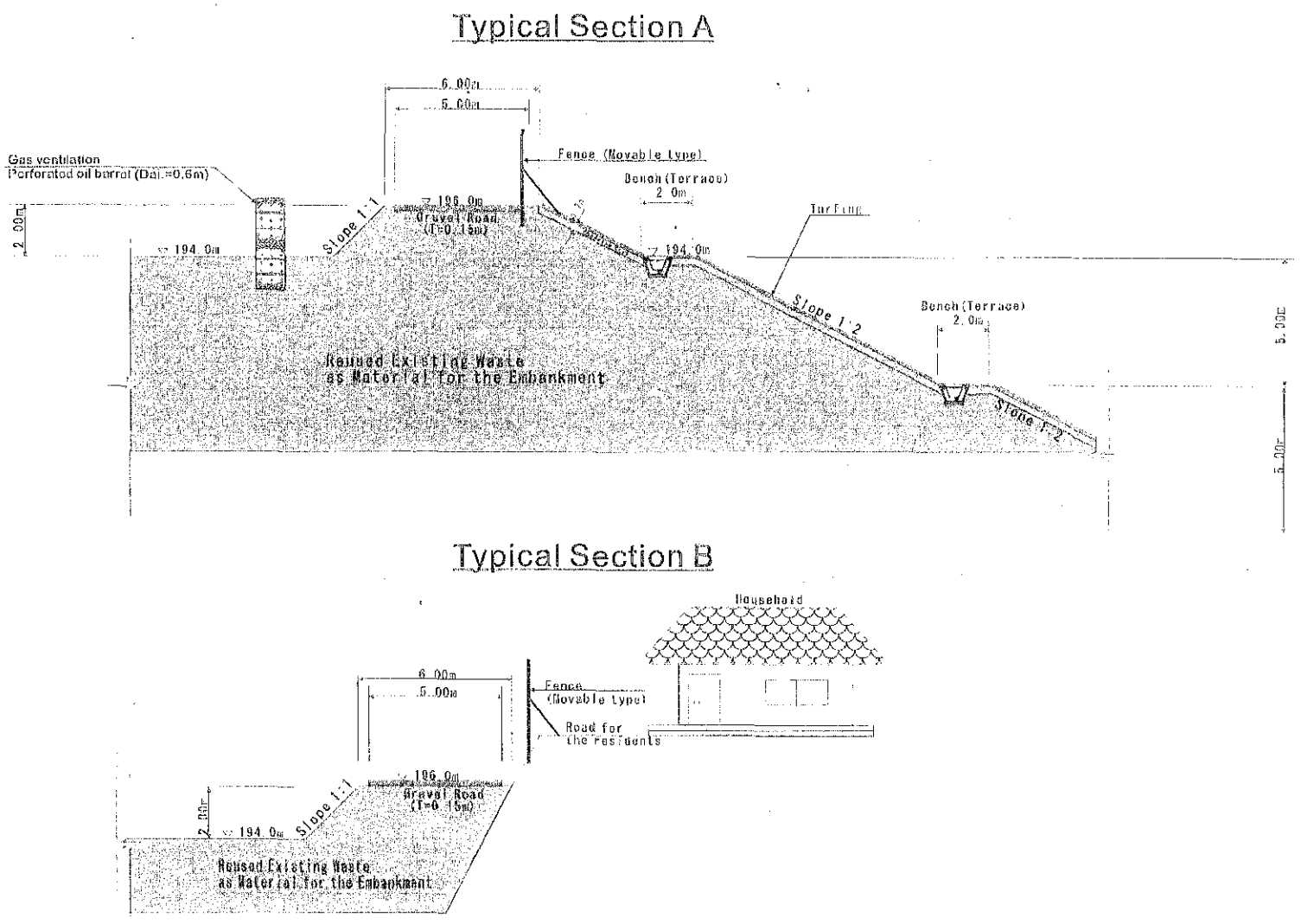


Figure 7-3: Typical Section after Improvement

b. Leachate Collection Pond

A leachate collection pond was constructed at the lowest point of the fill in order to collect leachate seep from the bottom of the landfill. The facility was an excavated pit supported with sand bags. An electrical pump and pipeline were installed to divert collected leachate to the modified gully suck- leachate treatment facility.

c. Modification of Gully Suck and Leachate Treatment Facility

The existing gully suck disposal tanks were modified in order to treat leachate and gully suck. The tank receives approximately 23m^3 of gully suck, which is collected from the septic tanks. The quality of gully suck waste shows that it has already decomposed most of BOD but further treatment is needed to reduce the BOD before release to the inland water bodies. In addition to gully suck, the facility receives leachate that is pumped out from the leachate collection pond after modifications. Four aerators were installed in the primary tank to enhance the degradation process and the secondary tank was designed as a settlement tank and temporary storage prior to discharge. The treated effluent is discharged into a small stream flowing below the landfill facility.

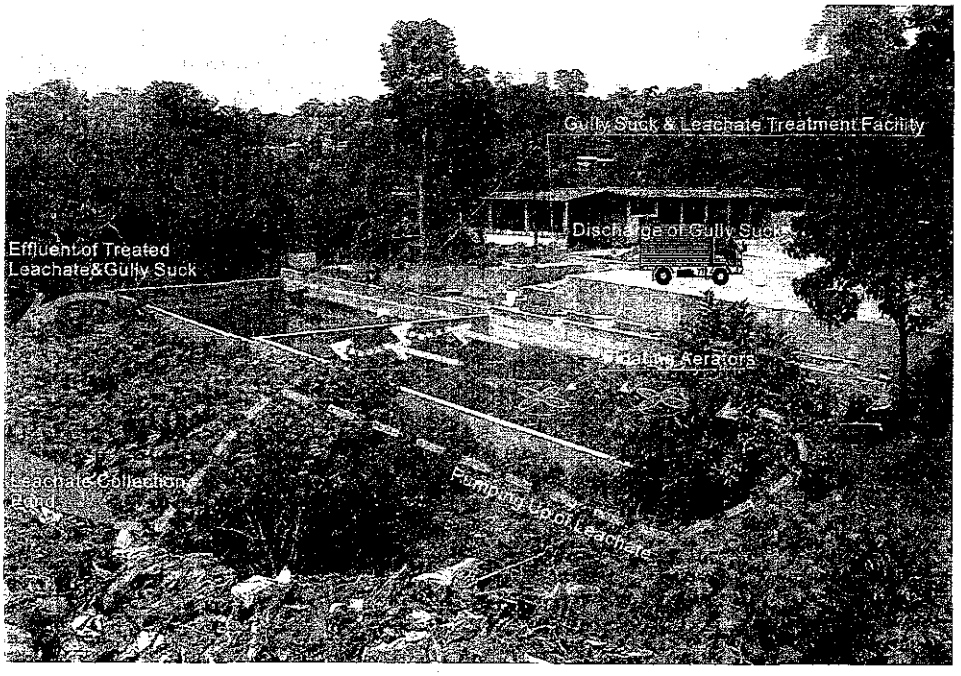
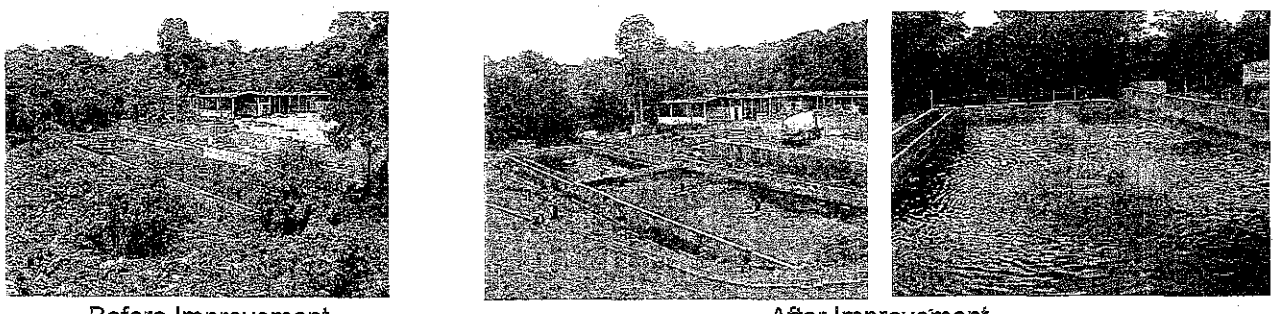


Figure 7-4: Concept of Treatment Facility for Leachate and Gully Suck

Before Improvement　　After Improvement

Figure 7-5: Collection of Leachate



Before Improvement　　After Improvement

Figure 7-6: Treatment Facility for Leachate and Gully Suck

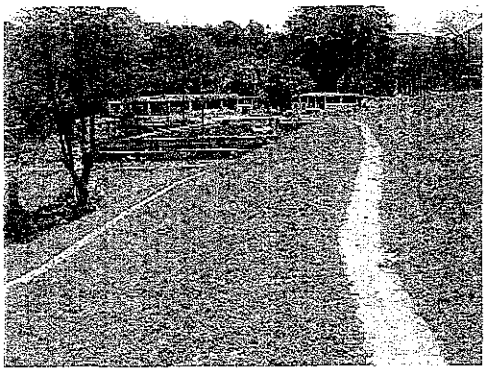
d. Bench (terrace)

The purpose of the bench was as follows:

1) To protect the slope by intercepting runoff water flowing on the slope
2) To provide enough space for the interceptor drain on benches
3) To provide enough working space for slope maintenance
4) To keep the waste filling slope stable

The bench plan was as follows.

- Every 5 meters in height
- Bench width of 2 meters



The purpose of the leachate collection facility on the bench is to collect seeping leachate from the relocated landfill site.

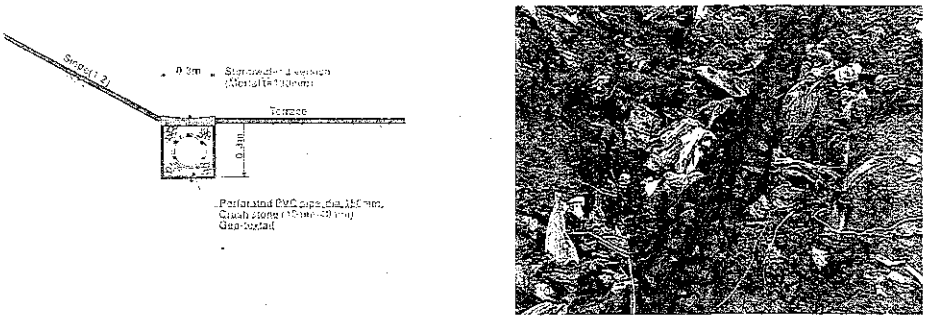
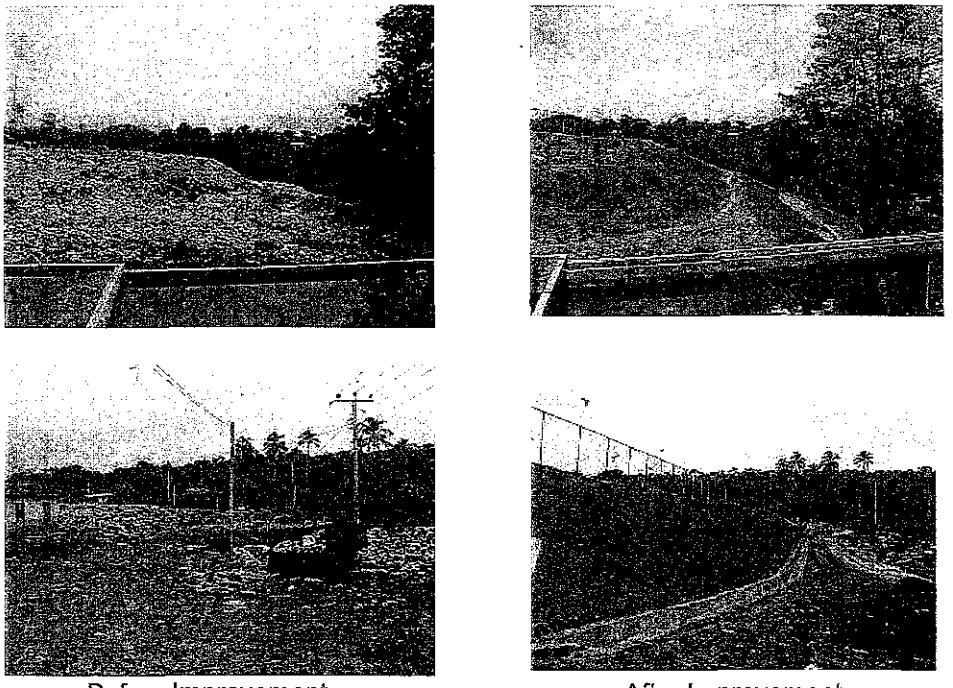


Figure 7-7: Leachate Collection Facility on the Bench

e. Covering Soil and Turfing on the Slope of the Waste Filling

The slope of the waste filling was covered with soil and turf for the following purposes:

1) Protection of the slope from erosion by runoff water
2) Maintenance of the good view.



Before Improvement | After Improvement

Figure 7-8: Covering Soil and Turfing on the Slope

f. Storm Water Drain

The storm water drain on the bench terrace and along the foot of the landfill was installed for the following purposes:

1) Minimization of leachate generation by intercepting runoff water into the site.
2) Maintenance of access road

The riprap drain was constructed along the road to collect storm water coming from the surrounding area and slope of the fill. The collected water is diverted to the small stream at the bottom of the landfill.

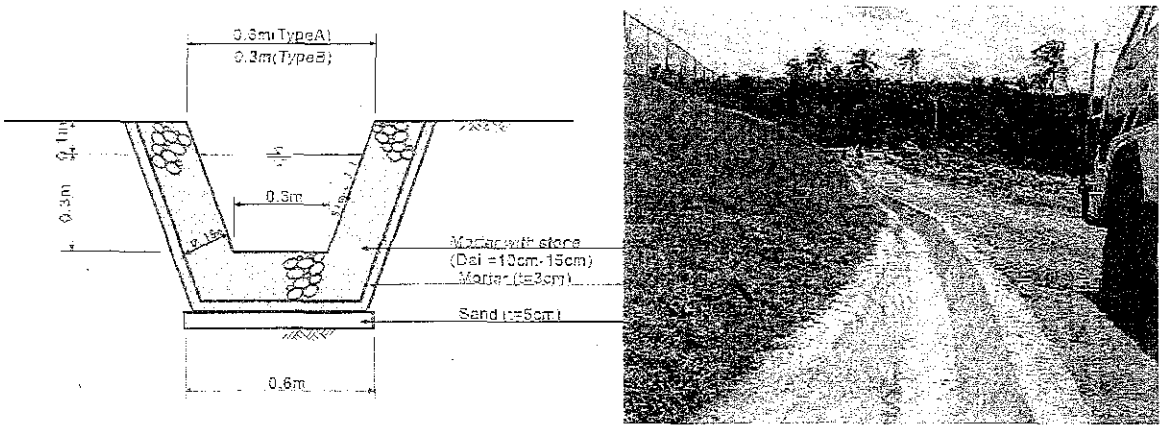


Figure 7-9: Riprap Drain

g. Gas Ventilating Facility

The gas ventilating facility was provided to exhaust the landfill gas generated in the landfilled waste to minimize the risk of gas explosion.

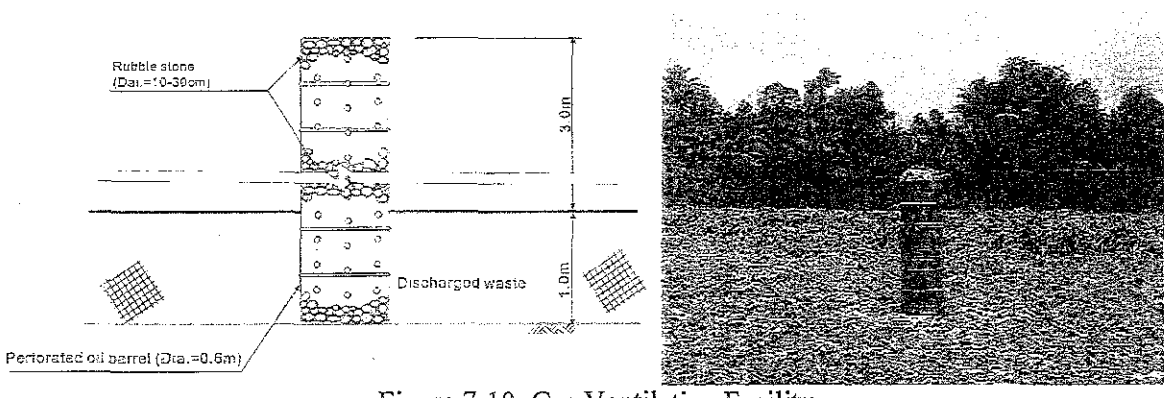


Figure 7-10: Gas Ventilating Facility

h. Medical Waste Discharge Area

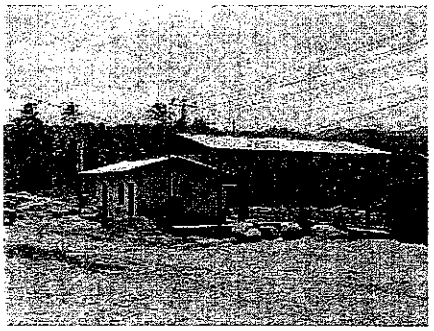
The Medical Waste Discharge Area was constructed separately in the old dumping area. It receives the following wastes which require special care for handling.

- Syringes
- Medical tools and goods which contacted blood

The disposal pit was completely surrounded by a gate and a fence to ensure nobody except the landfill staff can enter.

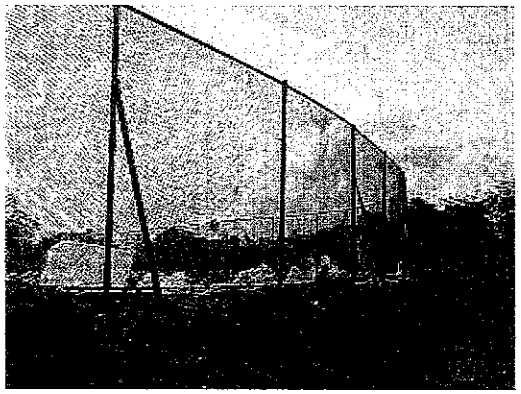
i. Relocation of Control House and Garage for Bulldozer

The existing site office and garage for the bulldozer were demolished during the construction of the landfill. Those facilities were relocated outside the landfill.



j. Security Facilities

A movable fixed type fence was installed along the temporary access road on the embankment to prevent waste scattering from the active filling area.



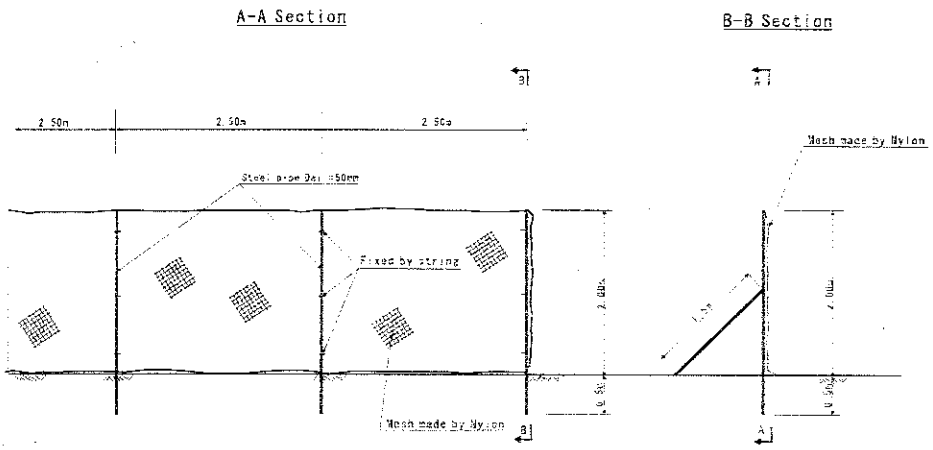


Figure 7-11: Movable Type Fence

k. Construction of New Access Road

A new access road was constructed around the landfill facility. The collection vehicles use the constructed access road to dump waste into the filling area. The access road is located 2 m above the active filling area. The road was established by filling old waste on the embankment and finished with compacted soil and gravel for easy access of the collection vehicles.

8 Required Approvals Prior to the Implementation

8.1 Management Organization of the Landfill Site

The local authorities that operate the landfill sites are mainly responsible for managing them. Furthermore, the Central Environmental Authority (CEA) or the monitoring committee consisting of Project Approving Agencies (PAA)[4] is responsible as the competent organization based on the following regulations to manage the operation of landfill sites done by local authorities.

Table 8-1: Management Organization and Method of Landfill Site

Defined Regulations for Landfill Site	Defined Projects	Management Structure & Method
IEE or IEA	New landfill site projects defined under "The National Environmental ACT published in the Gazettes (Extra-Ordinary) No. 772/22 of 24 June 1993 and No. 859/14 of 23 February 1995" (See reference "13 Environmental Law")	Project Approving Agencies and the CEA examine the project in accordance with IEE or EIA procedures. During operation of the project, a monitoring committee consisting of PPA conducts monitoring periodically.
Environmental Clearance	All kinds of projects consisting of facilities that have an environmental impact such as noise, air pollution, odour, and water pollution. Landfill sites are also defined.	The CEA examines whether or not the project conforms to the environmental standards based on an outline of the facility plan and a site survey. During operation of the project, the CEA monitors the operation of it periodically.
Environmental Protection Licenses (EPL)	All kinds of facilities that discharge 3.0 m^3 of effluent per day	After the project is approved by the CEA in accordance with Environmental Clearance or IEE or EIA procedures, an EPL is issued.

8.2 Permission for Landfill Site Operation

In order to operate a landfill site, the project is required to obtain IEE (Initial Environmental Examination) or EIA (Environmental Impact Assessment) or Environmental Clearance. Furthermore, if more than 3.0 m^3 of effluent per day is discharged at the landfill site, an Environmental Protection License is also required.

[4] Project Approving Agencies: The Gazette extra-ordinary No. 859/14 of 23 February 1995 (See reference "13 Environmental Law")

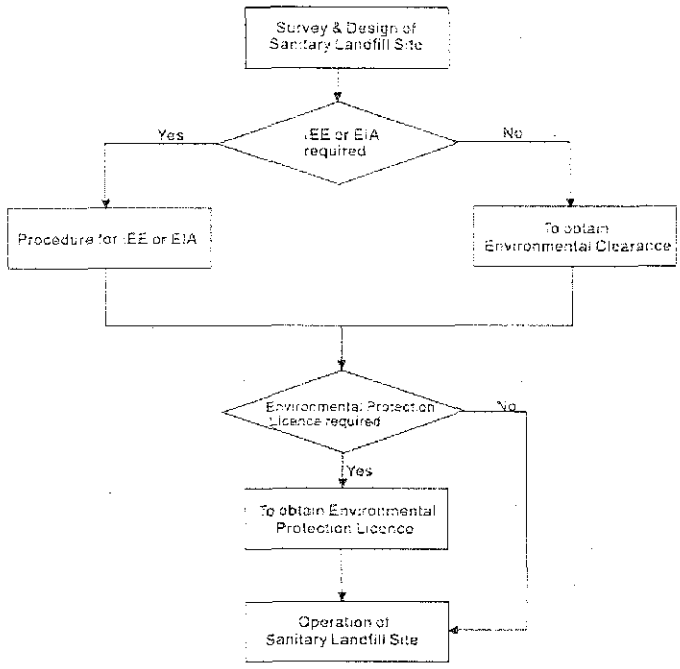


Figure 8-1: Permission of Landfill Site Operation

a. IEEs and EIAs

a.1 Landfill Site Project Plans requiring an IEE or EIA

Landfill site projects defined under "The National Environmental ACT published in the Gazettes (Extra-Ordinary) No. 772/22 of 24 June 1993 and No. 859/14 of 23 February 1995, Schedule Part I-III" (See reference "13 Environmental Law") are required to conduct an IEE or EIA. The regulation defines landfill site projects under "Schedule Part I" as follows:

(18) Disposal Waste

- Construction of any solid waste disposal facility having a capacity exceeding 100 tons per day.
- Construction of waste treatment plants treating toxic or hazardous waste.

There is no local authority which collects more than 100 tons of waste per day in Sri Lanka except for the Colombo Municipal Council and Dehiwala Municipal Council. Therefore, most local authorities are not required to conduct an IEE or EIA in accordance with the regulation of "(18) Disposal Waste".

However, if a landfill site project has a capacity of less than 100 tons per day and is defined under another regulation in Part I-III, e.g. conversion of forests covering an area exceeding 1 hectare for use as a landfill site", the project is required to conduct an IEE or EIA

a.2 Application Procedure for IEEs or EIAs

- Defined Projects: New landfill site projects defined under "The National Environmental ACT published in the Gazettes (Extra-Ordinary) No. 772/22 of 24 June 1993 and No. 859/14 of 23 February 1995, Schedule Part I-III" (See reference "13 Environmental Law")
- Address for application: Central Environmental Authority (CEA)
- Required document: Preliminary information
- Period for application: For IEEs, more than 41 days plus a minimum of three months before construction; for EIAs, more than 112 days plus a minimum of three months before construction.
- Fee of application : 50,000Rs

a.3 Procedure for IEEs and EIAs

A simple chart of the procedure for IEEs and EIAs is shown in the following figure.

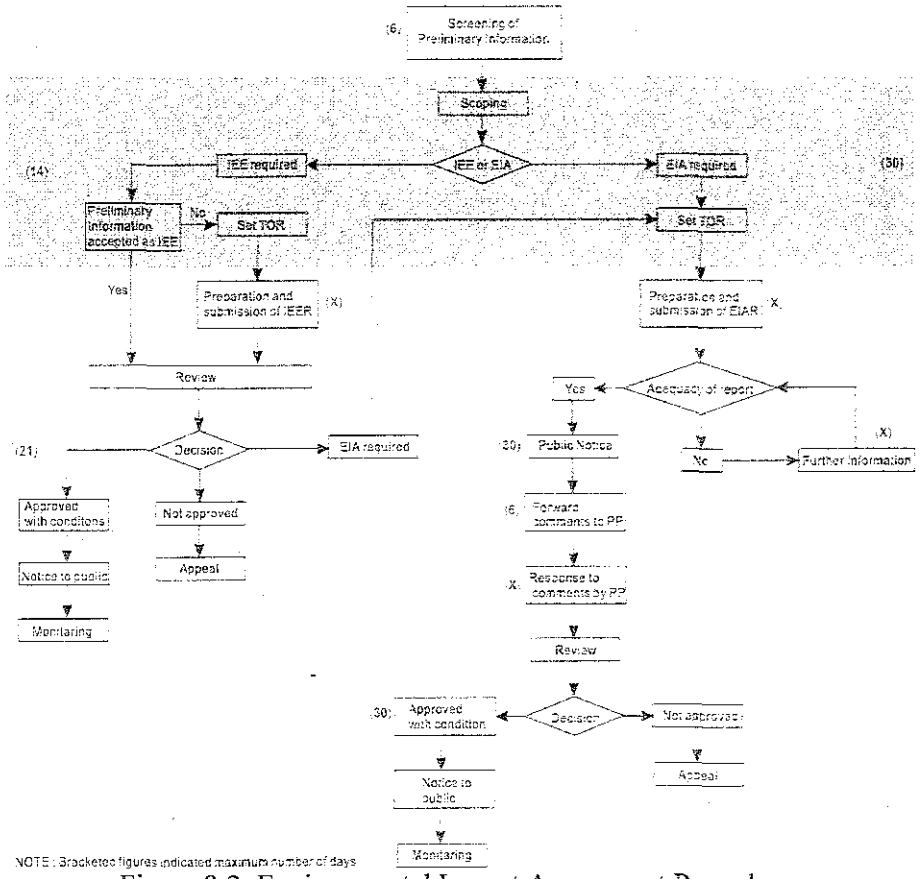


Figure 8-2: Environmental Impact Assessment Procedure

Preliminary information submitted by the project proponent is examined by a Scoping Committee which consists of the CEA and Project Approving Agencies. The role of the Scoping Committee is to judge whether the proposed project should be subjected to an IEE or EIA. Particular criteria for making such a determination are not regulated; therefore, the Scoping Committee decides whether to conduct an IEE or EIA based on the preliminary information and site survey.

For the detailed procedure for IEEs or EIAs, refer to the National Environmental (Procedure for approval of project) Regulations No. 1 of 1993 as contained in the Gazette (Extra-Ordinary) No. 772/22 of 24 June 1993 (Reference "13 Environmental Law").

According to IEE and EIA procedures, it takes 41 days for the approval of an IEE and 112 days for the approval of an EIA after the project proponent submits the preliminary information to the CEA. This period does not include the preparation of an IEE report or EIA report after the Project Approval Agency issues the TOR. Therefore, an extra three months is needed for preparation of the report.

Except for the improvement of Nuwara Eliya Moon Plain landfill site carried out in the JICA study, the only EIA conducted for a landfill site project so far was for the Hammwela landfill site project. However, the project was suspended and the construction has not been implemented.

b. Environmental Clearance

Environmental Clearance is required for all projects which may have an environmental impact on the surrounding area including the landfill site. However, if the project is to be subjected to an IEE or EIA, Environmental Clearance is not required.

The CEA examines whether or not the noise, air pollution, odour and effluent generated by project facilities conform to general environmental standards based on an outline of the facility plan submitted by the project proponent and a site survey. Particular criteria for Environmental Clearance are not regulated; therefore, the CEA evaluates the project with the facility plan and site survey. The outline of the facility plan consists of 2-3 pages describing the layout and capacity of the facilities. However, it is not sufficient to evaluate the projects.

So far, Environmental Clearance for a landfill site project has never been conducted. All existing landfill sites in Sri Lanka are operated without Environmental Clearance; therefore, all of them are illegal dumps.

- Defined projects: All kinds of project consisting of facilities that have an environmental impact such as noise, air pollution, odour and water pollution. Landfill sites are also defined.
- Address for application: Central Environmental Authority (CEA)
- Period for application: More than two months before construction
- Fee of application: Free of charge
- Required document: Outline of facility plan
- Monitoring: Four times a year without notice. The CEA monitors the operation of a project in accordance with the project plan submitted by the project proponent.