

Role of Wetlands for Sustainable Urban Development in Sri Lanka

Proposed Dump Site Rehabilitation into Public Sports Complex, Maharagama, Colombo.



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ACADEMIC QUALIFICATIONS

- (i) B.Sc. in Physical Science, Faculty of Science, University of Kelaniya, Sri Lanka.
- (ii) Postgraduate Diploma in Landscape Design, Faculty of Architecture, University of Moratuwa, Sri Lanka.
- (iii) M.Sc in Water Resources Management, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka.

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- Member of the Institute of Environmental Professionals of Sri Lanka, 2008

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Town Ship Development Programme: Proposed Dump Site Rehabilitation into Public Sports Complex, Maharagama, Colombo

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Background Information

There are lot of ecologically sensitive wetlands in Sri Lanka and many of these wetlands are under threats due to rapid urbanization, unauthorized filling, waste disposal, pollution due to effluent discharge, clearing of natural vegetation in and around wetlands, and the spread of invasive exotic species.. The wetland network is the macro scale natural drainage network, affording vital storm water drainage and flood detention, thus protecting high land from flood and making them available for intensive urban development at little or no cost especially in the low lying areas. Most wetlands also serve as “green lungs” as the essential open spaces visually, spatially air climate-wise, for human health (both physical and natural) and for comfort and recreation. Most wetlands are high in biodiversity and some of them are internationally considered significant biodiversity reserves in Sri Lanka. However on view of the large percentage of wetlands in Sri Lanka the lack of infrastructure serving all land located at higher level that are suitable and available for urban development, some filling for development purpose should be permitted. This could include the use of wetlands for carefully planned and implemented public infrastructure projects, such as high way development, solid waste management projects, recreational projects and sewage disposal projects, recreation project, in cases where more suitable lands is not available.

- While accepting a limited amount of compromise concerning the filling and use of some of the wetlands for public infrastructure and town center development projects, is recognized that most of the wetlands should be preserved in order to ensure that the expected urban development in the country is sustainable.
- **It is a common practice that many local authorities have used wetlands that are available within their administrative boundaries as dump sites. Navinna dump site in Maharagama, Colombo is such a wetland (abandoned paddy field) being used as a dump site. The Urban Development Authority has decided to rehabilitate this site and has proposed that the area will be developed as a Public Sport Complex under the Township Development Programme at Maharagama.**

LOCATION



OPPOSITE ARPICO SHOWROOM AND
ADJOINING HIGHLEVEL ROAD @ NAVINNA

Problems identified in the project

- Filling wetlands by using solid waste as filling materials.
- Leaching from the dump site.
- Gas emission.
- Proposed drainage system/storm water management to be addressed.
- Lack of social infrastructure in the area, Sport Complex, etc.
- Other institutional problems: lack of funding, lack of stakeholder participation.



The unpleasant appearance of urban environment at the Navinna dump site before the implementation of the stage 1 of the project.

Objectives

- Rehabilitation of the dump site into a Public Sports Complex for public recreation.
- Address the prevailing environmental problems such as leachates, emission of gas and storm water drainage.
- Introduce a transfer station for the waste to the area (for Solid Waste Management).
- Upgrade the social infrastructure in the area such as provision of playgrounds, gymnasium, foot ball field and athletic activities.

Brief

Provide essential public sports facilities to high standards as far as possible, while minimizing pollution and health problems owing to former garbage dump, ensuring efficient storm-water drainage and integrating maximum possible trees and other greenery requiring comparatively low maintenance.

Concept (considering site shape, space available and other site conditions)

The Project proposals should include the following:

- Provision of
 - Standard football field, running track and athletics facilities with pavilion according to space available
 - Standard outdoor netball, volleyball and basketball courts
 - Small, grassed cricket field
 - Swimming pool and sports hall cum gymnasium including indoor badminton, volley ball
 - Some outdoor gym and children's play facilities
- Main entrance from high level road and adequate parking as close as possible to entrance; limited access from lower (minor) roads
- Informal tree planting layout, with irregular, visually pleasing combination of shade – providing trees including flowering effects for different seasons of the year
- Buildings to be in contemporary, distinctly urban architectural style

Project details

- Design and managed by Urban Development Authority
- Total estimated cost: US\$10 million
- Founded by Treasury, Sri Lankan Government
- Contractor: Sri Lanka land Reclamation & Development Corporation
- Phased out for: 3 Phases
- Land extent : 16.3 acres
- Date of commencement : August 2008
- Date of Completion : October 2011

Proposed Lay-out Plan for Public Sports Complex

- ☐ **Gymnasium**
- ☐ **Swimming pool**
- ☐ **Indoor stadium**
- ☐ **Athletic track**
- ☐ **Football & cricket ground**
- ☐ **Restaurants**
- ☐ **Car parks**

MAHARAGAMA TOWN CENTER

SPORTS COMPLEX

- ☐ Gymnasium
- ☐ Swimming pool
- ☐ Indoor stadium
- ☐ Athletic track
- ☐ Football & cricket ground
- ☐ Restaurants
- ☐ Car parks



Role
Kapuuuwa Karikarniange Suganadasa

Work Programme (Phase 1): Provision of Small, Grassed Cricket Field & Car Park

Activities	April 2008	May 2008	June 2008	July 2008	Aug. 2008	Sept. 2008	Oct. 2008	Nov. 2008	Dec. 2008
Rehabilitation of Dump Site – Phase I									
Preliminaries works (site clearing, setting out work, workmen facilities, etc.).									
Spot level Survey									
Overall Design by UDA									
Temporary Fence									
Excavation and leveling of existing dump									
Supply, filling and grading of soil.									
Peripheral drainage system.									
Other Landscape Works.									

Work Programme (Phase II & III):
Phase II- Provision of Standard Football Field, Running Track & Athletics Facilities
Phase III- Provision of Sports Hall Complex

Activities	Jan. 2010	Feb. 2010	March 2010	April 2010	May 2010	June 2010	July 2010	Aug. 2010	Sept. 2010	Oct. 2010
Rehabilitation of Dump Site – Phase II & III										
Preliminaries works (site clearing, setting out work, workmen facilities, etc.).										
Excavation and leveling of existing dump										
Supply, filling and grading of soil.										
Peripheral drainage system.										
Other Landscape Works.										
Construction of a Sport Hall Complex.										