Presentation

On

GREATER KARACHI SEWERAGE PLAN (S-III)
Karachi with an estimated population of around 22 million is presently facing a severe environmental crisis due to discharge of untreated sewage through natural streams / drains and rivers into the Sea.

Presently, 100% of the total municipal sewage generated is discharged untreated into the costal water of Karachi city. This had converted our coastal belt into a big CESSPOOL & besides difficulties in port operations it causes serious environmental hazards.
All the rain water natural streams (nullahs) and drains are converted into open sewers. The major part of sea beach has become a large sewage pond with stinking odour and blackish color.
## Current Status of Sewage Treatment in Karachi

<table>
<thead>
<tr>
<th>Treatment Plant</th>
<th>Original Capacity</th>
<th>Current Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-I</td>
<td>51 MGD</td>
<td>Nil</td>
</tr>
<tr>
<td>TP- II</td>
<td>46 MGD</td>
<td>Nil</td>
</tr>
<tr>
<td>TP-III</td>
<td>54 MGD</td>
<td>Nil</td>
</tr>
</tbody>
</table>

- **Total Sewage Generated**: 470 MGD
- **Present Treatment**: Nil
- **Direct Discharge into Sea**: 470 MGD
What is Required?

- Transmission of all Sewage to Treatment Plants for processing before its ultimate disposal into the sea.

- Development of Treatment Facilities ~ 500 MGD (including 40 MGD Treatment Plant to be constructed by KPT at Mai Kolachi)
S-III is geared towards improving environmental & sanitation conditions of Karachi through a well integrated system of collection, treatment and disposal of sewage.

The major Works under S-III Consists of:

- RCC Interceptor along Lyari River 33,320 M
- RCC Interceptor along Malir River 22,741 M
- Interconnection of Nullahs & Trunk Sewers
- Rehabilitation and Enhancement of existing STP - I (100 MGD) & STP-III (180 MGD)
- Construction of New STP - IV (180 MGD) at Korangi
Development Plan of S-III Project may be broadly divided into following two components:

- Sewage Transmission and
- Sewage Treatment
A. Sewage Transmission System

- Lyari River Interceptor (33,320 Meter)
- Malir River Interceptor (22,741 Meter)
PROPOSED ROUTE MAP TP-I
## B. Sewage Treatment Facilities

<table>
<thead>
<tr>
<th>Sewage Treatment Plant</th>
<th>Existing</th>
<th>Proposed</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Plant 1, Haroonabad SITE</td>
<td>51</td>
<td>100</td>
<td>MGD</td>
</tr>
<tr>
<td>Treatment Plant 2, Mehmoodabad</td>
<td>46</td>
<td>Sewage Pumping Station</td>
<td>MGD</td>
</tr>
<tr>
<td>Treatment Plant 3, Mauripur</td>
<td>54</td>
<td>180</td>
<td>MGD</td>
</tr>
<tr>
<td>Treatment Plant 4, Korangi (NEW)</td>
<td>-</td>
<td>180</td>
<td>MGD</td>
</tr>
<tr>
<td>New Treatment Plant 5 at Mai Kolachi (To be implemented by KPT)</td>
<td>-</td>
<td>40</td>
<td>MGD</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
<td><strong>500</strong></td>
<td><strong>MGD</strong></td>
</tr>
</tbody>
</table>
ADMINISTRATIVE APPROVALS

PC-I of the Project was approved by ECNEC at a cost of Rs. 7,982 Million on September 19, 2007 on cost sharing of 50:50 between GoP and GoS.

Modified PC-Is for Lyari & Malir River Basins has already been approved by PDWP for onward transmission to CDWP as per following details:

Lyari River Basin: Rs. 21,356.788 Million
Stage-I Rs. 13,771.768 Million
Stage-II Rs. 7,585.020 Million

Malir River Basin: Rs. 15,062.815 Million
Implementation Plan of S-III Project

S-III Project is planned to be implemented in following Phases:

PHASE-I: LYARI RIVER BASIN (280 MGD)
Phase-I is subdivided into two Stages:
(a) Stage-1 (200 MGD):
1. Sewage Transmission from Gulshan-e-Yaseenabad to Mauripur
2. Complete Rehabilitation and Enhancement of TP-I
3. Rehabilitation of TP-III
(b) Stage-2 (80 MGD):
1. Balance Sewage Transmission from Surjani to Gulshan-e-Yaseenabad
2. Enhancement of TP-III

PHASE-II: MALIR RIVER BASIN (180 MGD)
(a) Sewage Transmission from Quaidabad to TP-IV (Korangi)
(b) Construction of New STP-IV at Korangi
(c) Rising Main from TP-II

KW&SB
CURRENT STATUS OF S-III PROJECT
Design Phase of S-III Project has been completed and also vetted by WS Atkins (U.K).

Execution of works of Sewage Transmission and Treatment in Lyari River Basin are in progress.
Excavation for River Diversion

Lean Concrete

PICTORIAL S-III PROJECT

Base Slab Formwork Fixing

Conduit’s Top Slab Concreting
PICTORIAL S-III PROJECT

Installation of PVC Liner in Progress

Concreting of RCC Conduit

PVC Lined RCC Conduit

RCC Boundary Wall @ TP-III
PICTORIAL S-III PROJECT

Ribs Repairing Works @ TP-I

Rehabilitation of Sedimentation Tanks

Sludge removal from Anaerobic Lagoon @ TP-III

Dewatering from Inlet Chamber @ TP-III
Thank You