

ORANGI PILOT PROJECT RESEARCH AND TRAINING INSTITUTE (OPP-RTI)

LOW COST SANITATION PROGRAMME IN ORANGI

Introduction

Poor sanitation is undoubtedly the most distressing problem of the low income settlements. Poor communities succeed somehow in building houses but they fail to make proper arrangements for disposal of excreta and waste water i.e sanitation. The cost of flush latrines and underground sewerage built officially by the contractors, is too high for poor people. OPP discovered low cost methods, through research and taught the lane residents, through technical and social guidance, to construct sanitary latrines in the homes, underground sewerage lines in the lanes and secondary sewers with their own money and under their own management. While trunk mains and treatment plants remain the responsibility of the government. **This constitutes the component sharing concept of development.** The demonstration in Orangi has attracted the attention of other NGOs, CBOs, Govt. Departments and Local Municipalities. They are replicating the program in many places as described in section 1 of the 141st Quarterly Progress report on replication. **Given above is the budget and staffing pattern of OPP-RTI's sanitation section which is looking after the work in Orangi, and also supporting and supervising projects in Karachi and several other cities.** Following are some details of the self financed, self managed and self maintained low cost sanitation in Orangi.



Statistics of Work in Orangi

Survey of Orangi -1989 and 1997 -
regularly updated since •

	Total
Sewer Line	113
Lanes	7,893
Houses	1,12,562



Cummulative Construction and People -s Investment in Low Cost Sanitation (Internal Development) 1981 to Dec-2016

Total All Orangi	Cummulative Construction	Percentage
Sewer Line	• 7,312	92.63
Length (RFT)	1,853,529	-
Secondary Sewer	+ 611	-
Length	2,88,457	-
S.Latrine	109,511	97.28

Total All Orangi	Cummulative Peoples Investment (Cost in Rs.)
Sewer Line	39,379,994
Secondary Sewer	3,636,793
S.Latrine	91,935,680
-	-
Total	134,952,467



* 5,871 by people; 1,441 by Govt.

+ 287 by people ; 324 by Govt.

Govt's. Secondary /Trunk sewers/box drains (External Development) : Construction and Investment - Dec '2016

	Main	Sec
Trunk Sewer/Box Drain	223	34
Length	3,35,083	37,773
Cost(Rs.)	47,6375,900	75,546,000



Natural Nala Development into Box Trunks by KMC/City Govt : Construction and Investment - Jun'1999 - Dec' 2016

Nala Nos.	15 (Haryana, Bukhari, Ghaziabad, Gulshan-e-Behar, Hanifabad, Sector 14/E, L-Block, Sector-9, Islam nagar, Sadiqabad, Mianwali* +, 11-A, Khairabad* nala Phase-I ext. main, Mominabad * + and Baloch cly*)
Length rft.	52,731 **
Cost Rs.	201.590 million **

* These also serve Site/Gadap towns respectively. + Work in progress

** These are of the segments in Orangi town only. Of the segments in other towns, the statistics are in section 1.8.1 of the 141st Quarterly Progress report

These box trunks serve as sewage and rainwater disposal for 6,285 lane sewers, serving 1,08,787 houses. Work in progress is reported in the following section.

Development of Orangi Natural Nalas into box Trunks/Drains: A Part of External Development

The natural nalas (drainage channels) are the main disposals for sewage and rainwater. As per OPP-RTI designs these have been/are being developed as box trunks for sewage and rainwater disposal.

Since 1999, when work on one branch nala began, development into box drains of 11 branch nalas and a segment of the main (54,393 rft) have been completed by KMC, costing Rs. 152.141 million serving 4,465 lane sewers.

On one the Mianwali drain phase-I, Orangi (4,376 rft.), with 2,739 rft. of the drain completed, further work started this period (Dec'14-Feb'15)

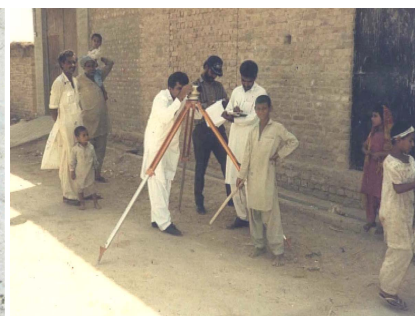
On the Khairabad (phase-I 16,000 rft.) serving as sewage disposal for 2,200 lanes (500 in Orangi and 1,700 in Gadap town). Total 12 house owners have voluntarily dismantled parts of their houses to make space for the construction. OPP-RTI designs and the process of construction have avoided evictions. 14,650 rft. completed, remaining 1,350 rft. to be carried out in phase-II.

On the Sadiqabad nala, with 50% works completed, further work has remained stopped since the end of 2008, advocacy continues for completion of the works.

On the Mominabad drain (total 15,558 rft.) work is in progress on the disposal segment- I located in Site town (6,652 rft.). 1,600 rft. drain has been completed earlier. Meetings have been held and contacts maintained with the KMC engineers for facilitating implementation.

On the Baloch colony drain (14,585 rft.) work on site began by May'12. OPP-RTI provided on site guidance. 3,000 rft. box drain was completed, further work is stopped, lobbying continue to restart the work. Two house owners have voluntarily dismantled parts of their houses to make space for the construction.

On the Khalidabad drain UC-7 Orangi (1,300 rft.) work on site begun by April'14, 750 rft. box drain is complete.



Union Council Development

There are 13 Union Councils in Orangi. Each Union Council has a population of between 50,000 -1,00,000. Plan books of the 13 Orangi UCs were earlier completed. On request these are regularly provided to the CBO activists and other interest groups. The plan books comprise 1) maps of the UC and of the individual settlements within each UC, 2) documentation of existing situation w.r.t. sewage disposal, water supply, health, education, solid waste disposal, parks/playgrounds and 3) development needs- identification of the role of community/govt.

Efforts continue so that the City, Town, UC budgets are properly used for external development instead of being wasted on duplications/adhoc invisible works. Documentation, technical guidance, advocacy and community mobilization continues. As advocated by OPP-RTI and community activists and now the CDGK policy, main open drains have been /are being repaired and covered at many places. There is now more focus on external development, many existing main sewers are also being repaired while new ones are being laid.

In three UCs (UC5-6 & 7), out of the total 13, some internal development works remain in others these are mostly complete.

LOW COST SANITATION PROGRAMME EVOLUTION OF THE SANITATION PROGRAM INTO THE COMPONENT SHARING MODEL