

ORANGI PILOT PROJECT Research & Training Institute

147th QUARTERLY REPORT

JUL-AUG-SEPT 2016



Education program focusing teacher training and curriculum up gradation as a tool for an improved education system

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ORANGI PILOT PROJECT – Institutions and Programs

Contents:	Pages
I. Introduction:	1-4
II. Receipts, Expenditure and Assets – Audited figures	4
III. Receipts and Expenditure - Abstract of OPP Institutions (2012-2013)	4
IV. Orangi Pilot Project – Research and Training Institute (OPP-RTI)	5-61
V. Karachi Health and Social Development Association (KHASDA)	62-63

I. INTRODUCTION:

- Since April 1980 the following programs have evolved and are ongoing:
 - Low Cost Sanitation** -started in 1981
 - Low Cost Housing**- started in 1986 – reorganized as the Housing Saving and Loan Program in 2010.
 - Health & Family** started in 1985
 - Women Entrepreneurs** - started in 1984, later merged with Family Enterprise Micro Credit
 - Family Enterprise Micro Credit** - started in 1987
 - Education** - started in 1987 stopped in 1990. New program started in 1995. Presently reorganized.
 - Rural Development** - started in 1992, presently merged with micro credit
 - Secure Housing Support Program** - evolved since 2009.
 - Flood relief and rehabilitation** – evolved since the floods of 2010-11. Support stopped in 2015.
 - Water Supply** - since 2008 – research/plan for Karachi, since 2010 - program in Battagram and lately technical support initiated in the goths/abadis in Karachi.
 - Saving Groups** – a initiative since 2010 - specially focused on women.
- In 1980 OPP began work. In 1988 OPP evolved into the following independent institutions that are functioning:
 - OPP-Research & Training Institute (OPP-RTI)** undertakes the Sanitation, Housing/Secure Housing Support (Housing,Saving and Loan Program), Education, Water Supply and the Saving Groups programs, the research and training for these and facilitates as needed the training activities of OPP institutions. OPP-RTI's role is to strengthen community initiatives and build partnerships between people and govt, in the process strengthening the govt. too, so that development can be undertaken with local resources. The method of work is action research and extension education. Since the earthquake of 2005 and then the floods of 2010 & 2011, relief/rehabilitation was also undertaken. For details see report on pages 5 to 61.
 - OPP- Karachi Health and Social Development Association (OPP-KHASDA)** undertakes the Health and Family planning program. See report-pages 62 to 63
- Replication of the Low Cost Sanitation Program - the component sharing (CS) model - by partner NGOs, CBOs and Govt. Agencies, is proceeding in Karachi, Lodhran, Uch, Ahmedpur East, Naushehra Virkan, Gujranwala, Lahore, Bahawalpur, Jampur, Multan, Jalalpur Pirwala, Yazman, Keror Pacca, Keror Lal Eason, Mailsi, Shahpur Chakar/Khadro, Sinjhor, Sakrand, Samaro and Shahdampur (including the nearby villages). **Partners Muawin and Hamet have evolved as training and support bases for replication in the Punjab province, partner SWDSO in Sindh is likewise being strengthened to provide support to nearby towns/villages, to new partners and to each other.** In 1994 Sindh Katchi Abadis Authority (SKAA) adopted the model in its program for upgradation of low income settlements in Karachi. In Nov 2002 Punjab Katchi

Abadi and Urban Improvement Directorate (PKAUID) adopted model in its policy. In Nov 2006 the National Sanitation Policy was approved by the Govt. it includes the model for adoption. Partners are also extending work in villages. **Small village level sewage disposals, the designed Sewage Treatment Units (STU's), are now the focus in implementation.** Research on the design and function of STU's is initiated, to scale up the model as a rural sanitation system in villages where sewage disposal is not present. Two STU's have also been rehabilitated for research purposes at OPP-RTI's office. The treated water is being utilized for urban forestry within the office premises. Since 1998 the Karachi Metropolitan Corporation (KMC) is being supported to develop the natural *nalas*/drainage channels, as box trunks, as these are the main disposals for sewage and rain water all over the city. **Works on more than 55%** (The variation of the figure from the previous QPR is due to the new open drains being constructed simultaneously along with the box trunks - OPP-RTI's latest survey) **of the box trunks/drains in the city are complete, on more work is in progress.** With the construction of open drains in the city OPP-RTI maps, advocacy and the demonstration of nala development projects have speeded up the process. In June 2007 Rs. 900 million was approved by the Sindh Govt for the development of 9 major drains (designed by OPP-RTI and serving many low income settlements) spread over 8 towns. Likewise additional six drainage channel projects (costing Rs. 622 million) serving 6 towns, have been approved since. On 10 box drains construction was completed, on 5 it is in progress, while three are under process for implementation. For six more serving settlements in 3 towns, designs have been finalized for budget approval. **Villages in the periphery of Karachi known as "goths" are increasingly merging with the expanding city. In addition to supporting the people's efforts for secure housing, effort is being made for provision of sewage/drainage disposals now also the water supply systems, while the education, housing and women savings programs are also being extended. Phase wise plan for sewage/drainage disposal for 1,183 of these goths (that have become urban settlements – latest statistics) is being prepared. 42 projects serving 185 goths and more than 45 nearby abadis are at various stages of planning and implementation.** OPP-RTI's proposal for bulk sewage/drainage disposals for Karachi is now the Karachi Water & Sewerage Board's (KW&SB) S-III plan. Revised cost of the project is Rs. 25 billion; work on site is in progress. Maps documenting the sewerage/drainage systems of the towns, the plans for Karachi and that of the water supply systems and now of goths that have become abadis, are available on our website. These are also used by govt. agencies, NGOs, researchers and the media. **The partners network CDN is a forum strengthening mutual learning, support and training. In addition the Youth Technical Network and the Women's Savings Groups Network are enabling the coming together and strengthening of many more community groups.** Misereor, Water Aid, and ACHR continue with their support. For details see OPP-RTI report section 1.

The Water Supply Program: Water supply provision in the goths (that have become urban): technical support to communities continues (details are in section 1.7.4).

Youth program continues to train more community architects, technicians and surveyors. **Since mid 2011 two youth organizations TTC and PMC involved in mapping /technical support have evolved as institutions, support continues. One more youth group the UTC, managed by TTRC is being supported. The Youth Technical Network (encouraging mutual learning and support) continues to train and guide the youths, on mapping and technical details.**

Mega projects and investments in Karachi have resulted, on the one hand, in the spiraling cost of land and on the other in the Local Govt.'s plans and some actions off and on for evictions of poor settlements. Villages/goths in the periphery of Karachi, fast merging with the city, were mostly at risk. **Using the mapping/documentation, advocacy, technical support and the activists networking as important tools strengthening community resistance and organization for land tenure, the Secure Housing Support program is ongoing** OPP-RTI

mapping, advocacy and relationship building has supported the process. With OPP-RTI direct support, work in 222 goths is in various stages of land tenure. Refer details in section 3.

In Housing the Technical Training Resource Centre (TTRC), the Ujala Taamerati Center (UTC) (based at TTRC, Orangi town), the Tameer Technical Center (TTC), functioning as housing support organisations based in Orangi and Gadap towns, continue to be strengthened. TTC & UTC have evolved link to the HSLP. Refer details in section 1.7.3 and 5.4.

The Education program, as a process strengthening the people's schools in the Goths and settlements of Karachi is supporting small schools in physical upgradation, teachers training and organizing the schools savings and credit groups, reaching upto total 654 schools educating more than 87,331 children. **The new focus is on establishing contacts with schools supported earlier thru teachers training. While grant support has been discontinued.** For details refer section 6.

Women's Saving Program is inspired by the women's saving groups of India, Nepal SriLanka and Phillippines. There are 141 saving groups with 3,493 members, have saved total Rs. 10.155 million. To strengthen the savings program in Sindh; saving groups formed by OPP-RTI's partner organisations working on sanitation will be focused. The women saving program has initiated link with the food security program, motivating them on kitchen gardening. Refer details in section 7.

A new initiative, the Food Security Program has formed link with the women saving and education program. It undertakes the training on kitchen gardening. 6 trainings have been organized for women saving groups participated by 154 women while 3 trainings have been held with 61 teachers and students from Orangi town.

4. **Around Aug'10 and again in Aug'11 floods devastated Pakistan. OPP-RTI's support to 45 partners for rehabilitation (shelter/hand pumps/mosquito nets), continues across 2 cities and hundreds of villages around 32 towns** mostly in Sindh and Punjab. Since Nov'10 support has been provided for i) shelter i.e roofing to 30,324 houses spread over 2,215 villages. ii) 521 hand pumps for 259 villages iii) mosquito nets for 17,200 families, iv) 32 schools (shelter/stipend) in 32 villages and v) medicines for more than 1,05,467 patients, treated thru medical camps and centers. To some partners support was also provided for setting up village schools.
5. OPP-RTI was able to survive the tragic loss of its director, Perween Rahman, a basic pillar of the institute with a very heavy heart. It did so for almost a year through the dedication of the staff which Perween Rahman had instilled in them. Untill another incident took place in the same area with the next director, Salim Alimuddin. This forced the organisation's heads to shift the office to a safer place. The staff in Feb 2014 was moved to URC's office (in the city centre) for security reasons (a quick decision). However staff of 2 other OPP-Institutions i.e. OPP-OCT and OPP-KHASDA operated from the same office. OPP-RTI in Nov'2015 shifted to its new office located in the city centre. Until recently OPP-RTI has shifted back to the office at Qasba mor, as the security situation has stabilized in the area (Feb' 2016.)
6. A documentary on Perween Rahman was filmed last year. The film is being screened at different locations to disseminate OPP-RTI's approach and works. This activity has supported in re-establishing contact with various academic institutions and may result in evolving an Internee Program.

OPP-RTI's libray is being updated; plan is to upgrade it into an online library.

7. OPP-KHASDA raises awareness of health education, family planning immunization & nutrition in low income settlements of Orangi town. Recently it has extended support in the goths of Gadap town, Karachi. For details see section V.
8. List of publications – Please refer to the last pages.

II. RECEIPTS, EXPENDITURE AND ASSETS-Audited Figures (In Rupees)

• OPP

Year	Receipt	Expend.	Assets
1980-81	539220	187766	351454
1981-82	925921	452496	824879
1982-83	1811998	1320037	1316840
1983-84	2003319	1977586	1342573
1984-85	2660079	1856676	2145976
1985-86	2921394	2085179	2982191
1986-87	3317866	2355914	3944143
1987-88	3866439	3784915	4025667
1988-89	3375637	3485389	3915915

- In 1988 the OPP was upgraded into independent institutions. The OPP-Research and Training Institute (RTI), the Orangi Charitable Trust (OCT), the Karachi Health and Social Development Association (KHASDA) and the Rural Development Trust (RDT).

III. RECEIPT AND EXPENDITURE (2015-2016)

• Abstract: OPP-RTI, OPP-OCT, OPP-KHASDA and OPP-RDT

	RECEIPTS		EXPENDITURE	
	BUDGET	July'14-Aug'16	BUDGET	JUL - Aug'16
OPP-RTI *	52,087,056	52,024,893	52,659,932	55,403,915
OPP-KHASDA +	600,000	784,340	600,000	716,220

+ Updated figures not received this period

IV ORANGI PILOT PROJECT – RESEARCH AND TRAINING INSTITUTE

Contents

1. Replication of the Low Cost Sanitation Programme

- 1.1 The Component sharing Model
- 1.2 Advisory Support
- 1.3 Support to NGOs/CBOs
- 1.4 Some lessons learnt while working with Government and NGOs/CBOs and some Axioms
- 1.5 The Local Govt. System – Presently an adhoc setup

1.6 Working with NGOs, CBOs and Government outside Karachi

- Community Development Support Program - Uch Sharif and Ahmedpur East
- Organisation Pan Environment – Gujranwala
- Hafeez Arain Memorial Empowerment Trust – Bahawalpur, and partners in Jalalpur Pirwala/Kehror Pucca/Lodhran, Yazman and GUID in Multan
- Sahil Development Organisation – Naushehra Virkan
- Organization for Health and Development
- Nawan Soojla Foundation (NSF) - Jampur - South Punjab
- Sanghar Welfare Devlpt. Support Organisation – S'pur Chakar/Khadro and nearby villages - Sanghar
- Rural Area Development Organisation – Sinjhor
- Watan Welfare Organisation – Sakrand and nearby villages
- Sindh Rural Development Organization (SRDO) – Samaro, Umerkot
- Zahra Humanitarian Organisation (ZHO) - Shahdadpur
- Baghwan Devlpt. Organisation – Batagram, Mansehra –Water Supply program
- Global Development Organisation (GDO) – Keror Lal Eason
- Prime Welfare Organisation (PWO) – Harand
- Kunnar Women Development Program, Balakot, KPK
- Effective Microbe – Sewage Treatment Units (EM-STU)
- Community Development Network, Women Savings Groups Network, the Youth Technical Network
- National Sanitation Policy
- Training Workshop

1.7 Working with NGOs, CBOs and Government in Karachi

- Survey of SKAA, KMC Abadis and the BOR Goths
- Khuda Ki Busti – Taiser Town – Saiban
- Technical Training Resource Center, the Tameer Technical Centre the Ujala Technical Center and the Peoples Mapping Centre
- Support to goths (villages fast becoming urban settlements)- including the water supply provision
- Development of Natural *Nalas*/Drainage Channels into box trunks - **Citywide application – Working with KMC**
- Documentation of Natural *Nalas*/Drainage Channels
- Working with KWSB - City's Sewerage, Drainage, **the S-III plan and the Water Supply Plan for the city. Working with the P&D Dept. / PHED**
- Citizen's Water and Sanitation Group for the City and Other Cooperative Actions.
- Site, Baldia, N'bad, N. Karachi, Gadap, Kemari, Bin Qasim and Gulshan towns

1.8 Statistics: Sewerage Construction outside Orangi – Aug'16

- 2. Research, Training and Publication**
 - 2.1 Training
 - 2.2 Youth/Activists Training and the Youth Technical Network
 - 2.3 Youth Initiatives/Organizations and Saving Groups
 - 2.4 CBOs/NGOs/activists forum and case studies
 - 2.5 Training Groups
 - 2.6 Visitors
 - 2.7 Research Studies
 - 2.8 Surveys/Documentation
 - 2.9 Publications
 - 2.10 Compilation of profiles/case studies (1983-2004)
 - 2.11 Statistics – Documentation
- 3. The Secure Housing Support Program. Support to Goths (villages, fast becoming urban settlements) in Karachi**
- 4. Low Cost Sanitation Program in Orangi**
 - 4.1 Introduction
 - 4.2 Statistics of Work in Orangi
 - Survey of Orangi
 - Cumulative sewerage construction: 1981 – Aug’16
 - Peoples investment in low cost sanitation
 - Govt. Trunk sewers/box drains.
 - Nalas/natural drainage channels - Development into box drains
 - 4.3 Development of Orangi Natural Nalas - A part of external development
- 5. Low Cost Housing Programme**
 - 5.1 Introduction
 - 5.2 Present package of Advice and its extension
 - 5.3 Construction and Demonstration: Statistics Aug’16
 - 5.4 Training, Extension and Documentation – Strengthening the three housing support organisations TTRC, TTC, and UTC based in Orangi and Gadap towns
- 6. Education Programme: Support to Small Schools in Karachi**
 - 6.1 Educated Youths take the Initiative
 - 6.2 OPP-RTI's Support
 - 6.3 Schools Functioning: Statistics April'95- Aug’16
 - 6.4 Stages in Expansion
 - 6.5 Budget for Expansion
 - 6.6 Revolving Fund for interest free loans to schools
 - 6.7 Teachers Training and the Schools Saving Groups
 - 6.8 Documentation
- 7. Women’s Savings Program and the Asia groups sharing**
- 8. Financial Data:**
 - 8.1 Receipts and Expenditure: Budget 2013-2014 and Actuals of July – Aug’16
 - 8.2 Receipts, Expenditure and Assets: Audited Figures 1989-2013
- 9. Floods - Relief and Rehabilitation and the evolving Village Development Program**

1. REPLICATION OF THE LOW COST SANITATION PROGRAM

1.1 The Component Sharing Model

The model that has evolved from Orangi is the **component sharing concept of development** with people and government as partners. The illustration is, there are two levels of a modern sanitation system:

a) Internal development comprising of:

- Inside the house - sanitary latrine,
- In the lane - underground sewerage line and
- Secondary or collector sewerage.

These constitute 70 per cent of the total system. People have shown that this level can be self-financed, managed and maintained.

b) External development which constitutes:

- Trunk sewer/natural *nala* development
- Treatment plant.

This remains like the water mains the responsibility of the government.

The model of low cost sanitation in Orangi is being replicated by NGOs/CBOs, Official agencies- the Karachi Metropolitan Corporation (KMC), and by the many Town Administrations where OPP-RTI and partners are providing support. The National Sanitation Policy, prepared by the Govt.in 2006, includes the model for adoption. In Nov'2006 the Karachi Water and Sewerage Board (KWSB) adopted the OPP-RTI proposal for sewage disposal and drainage for Karachi, as its S-III plan (now costing Rs.25 billion). With KWSB consultants finalizing the detail designs and prequalification of contractors, part wise contracting, work is in progress. Construction of TP-IV in Korangi and inviting tenders for upgrading of TP-I & TP-III is in process. KMC continues to fund and implement the OPP-RTI designed nala development (box drain) projects for the city, as well as other similarly designed projects all over the city. For 185 goths and 45 nearby abadis in Karachi, total 42 sewerage/drainage projects are at various stages of design and implementation.

1.2 Advisory Support

On request advisory support is being provided to the KMC for external development all over Karachi. Partners CDSP in Uch Sharif and Ahmedpur East, OPE in Gujranwala, Sahil in Naushehra Virkan, Hamet in Bahawalpur, Race in Jalalpur Pirwala/Kehror Pucca/Lodhran, Shed in Yazman, GUID in Multan, SDO in Mailsi, OHD, PWO and NSF in Jampur, SWDSO, RAWDO in Sanghar, WWO in Sakrand, SRDO in Samaro, ZHO in Shahdadpur and GDO in Keror Lal Eason, are providing advisory support to govt. agencies and facilitating expansion of work in their city/town as well as in the nearby towns and villages. Details are in their reports in section 1.6.

1.3 Support to NGOs/CBOs

Effort is being made to strengthen partner NGOs/CBOs so that they can function as support organisations. Three aspects are focused 1) social and technical skills 2) the organizational setup and 3) the financial system. Misereor has extended grant to support NGOs/CBOs to initiate/strengthen the sanitation programs. **In addition to supporting community groups, CBOs and NGOs in Karachi support is extended, as needed, to partner's mostly in Punjab/Sindh provinces.** Details are in section 1.6 as well as in the partner's progress reports regularly compiled by each.

1.4 Some Lessons Learnt while Working with Community, Government, NGOs/CBOs and some Axioms

Refer to the last two pages.

1.5 The Local Govt. System

The Local Govt. system known as the devolution plan in place since August 2001 was, by late 2011, replaced by the previous commissionerate system. The previous limits of districts and municipalities were restored. One more district has been added, bringing the total to 6.

1.6 Working with NGOs/CBOs and Government outside Karachi

Detail statistics of each partners work is in section 1.8 with reference to the area and location of work.

1.6.1 The Community Development Support Program (CDSP) - Uch Sharif

The town has a population of about 75,000. The sanitation program was initiated by NGO Conservation and Rehabilitation Centre (CRC) in 1999. Earlier mapping and documentation of the city, showed total 725 lanes, with mostly shallow open drains, where frequently sewage overflowed due to lack of or inadequate disposal. With OPP-RTI's assistance a conceptual Master Plan for sewage disposal was prepared for Uch city and presented to the Govt. By 2002 the 3 proposed projects for main sewers (estimated at Rs. 1.18 million) were completed by the govt. **Earlier CRC and now CDSP continues to plan, guide and supervise the work of the govt. agencies for the external development projects** as well as road construction and lane paving, so that sewers are laid before hand. Total 53,082 rft main sewers laid by the govt. Sultan Jahanian 1860 rft main sewerage line on going (total 960 rft. completed, this period 600 rft.) by govt have been supervised (most planned by CRC/CDSP), while desilting, replacement/repair of existing main sewers is regularly advocated and their implementation is monitored.

Since April'11 the organizational setup has changed, the program is now being extended thru the Community Development Support Program (CDSP). Core fund support continues. Settlements coming up in the periphery of the city and rural areas are being focused. Union Council wise mapping is complete. A sewerage plan for nearby developed city areas was presented to PPP-MPA and PHED for approval. External work by PHED has begun this quarter rehabilitation work of Jagpura main sewer 1900 rft. undertaken (this period work completed). Mapping of Mahand (rural) completed this period.

Total work of internal sanitation completed is 365 lane sewers (2 this period) 58,753 rft. and 15 secondary sewers, 4,298 rft. serving as disposal for total 2,925 houses, with people investing total Rs. 12,019,355. For more lane sewers mobilization and technical support is in progress. Govt. officials and community activists are in regular contact. With seven EM-Sewage Treatment Units (STU) constructed in Kot Khalifa, Shams colony, Nawaz Lashari, Basti Sweetra, Basti Gopang and Channi goth. EM-STU in Kot Khalifa rectified last period. There are few more requests of EM-STU for few of them mobilization meetings and technical survey have been held.

Earlier communities in the nearby towns of Ahmedpur East and Alipur, were also mobilized, here work was completed in total 75 lane sewers and 4 govt. laid trunk sewers. Last period mapping and documentation of Ahmedpur East restarted.

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1.6.2. Organisation Pan Environment (OPE) – Gujranwala

OPE's community mobilization and support for internal development continues, for external sanitation there is coordination with the govt. for main/sec. and lane paving. Area MPA, agreed to extend support in self help work and requested OPE to monitor the work under taken by WASA. Last period in four lanes paving was undertaken thru MPA funds. Earlier meeting held with MPA, Toufeeq Ahmed Butt, who reiterated that wherever work on a trunk sewer will start in NA-96 OPE will monitor this work. Meeting with the union council Chairman and Vice Chairman, UC-80/44, 43/7, 75/39 and 81/45. For expansion of work, mapping is being focused, of one UC 80/44, work was completed last period. Of more Ucs will be started after completion of demarcation work by govt. last period training of 3 lane managers on organizational aspects of self help lane sewers and 6 masons on technical aspects undertaken. OPP-RTI team member periodically visits to understand and guide the work.

Total work completed in the city has been 258 lane sewers (4 last period), and 21 secondary sewers of total 77,964 rft. serving as disposals for total 5,896 houses. People's investment in latrines, lane and secondary sewers has been Rs. 21.265 million. Four self help lane sewers laid; all were paved by area MPA. Additional 103 lanes and 20 secondary sewers were laid by the community supported by NGO AWF and the UNDP plus program. Managaer PRSP, Gujranwala and WASA supervisor from UC 81/45 were briefed on the work & approach of OPE. This period report not received.

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1.6.3 Hafeez Arain Memorial Empowerment Trust (HAMET) – Bahawalpur and its partners in Khairpur Tamewali, Jalalpur Pirwala/Kehror Pucca/Lodhran and Yazman.

Bahawalpur:

"Hamet" was setup in March'08. Core fund support was earlier mobilized thru OPP-RTI, since Jan'11 ACHR and now Misereor initiated direct core fund support. In the Govt.-ADB Southern Punjab Basic Urban Services (SPBUS) program for 21 towns (including Bahawalpur city) where the component sharing model has been adopted by the govt. city was mapped, trunk sewers and disposals were documented. Lane sewers are being laid on self help. **Hamet is undertaking work in Bahawalpur City as well as guiding partners working in 7 towns.** In Bahawalpur work on lane sewers is in progress. Since June'08 total 282 lane sewers have been laid on self help in 28 settlements (5 laid this period), 96 were technically supported by Hamet. Total 1,475 houses have invested Rs. 6,322,809/- on lane sewers and latrines. In more lanes there is money collection, community mobilization and technical support continues including training of polytechnic students and masons. Updated maps with documentation of the sewerage/drainage systems are regularly prepared. Last period, documentation of Nawaz colony, Hasan Colony and Satlag colony completed, mobilized by HAMET this period 5 lanes laid their sewers on self help each in Islami colony, Usman colony, Tiba Badar Sher and Maqbool colony. Due to transfer of TMA Dera Bakha base line survey remains in complete. For the settlement Choti Bandra as per Hamet's guidance laying of a main and repair of the existing sewer was earlier completed by TMA, connection of main sewer to the disposal remains as the land owners are using sewage for irrigation. Requested by the TMA of the nearby Samasatta town mapping/documentation and preparation of proposal for sewage disposal was submitted to TMA, no progress since then due to unavailability of funds. This period one lane and one secondary sewer laid by govt 272 rft., 300 rft in Tibba Badaar Sher, Basti Sanda and one latrine constructed by Abbasi town costing Rs. 26,506.

Hamet's training and guidance support to partner organizations for expansion of work in Southern Punjab continues. Hamet's partners work is detailed below.

Hamet's role in guiding/training the TMA officials, community activists, students of polytechnic,

CBOs and NGOs in the city as well as in the nearby towns for expansion of the component sharing model is important. Training and onsite guidance to NSF and OHD in Jampur was earlier provided. In Vehari, Sehar Development Organisation is being trained. Last quarter on request from a local organisation in Layyah, technical support for external planning provides. Hamet's monthly meeting among partners continues, for review and mutual support.

1) **Society for Health and Environmental Development (SHED) - Yazman:** In Yazman (a town with population of 30,000). In April 2009 small core fund support was initiated which continues. A social organiser and a technician form the team. Mapping of the town and documentation of infrastructure was earlier completed, while addition and updates continue. Total 103 lane sewers (3 this period) have been laid (53 technically guided by SHED some others mobilized), 443 houses have invested Rs. 2,254,189 on latrines and lane sewers. Plan for upgrading of water supply scheme was earlier provided to Chak No. 68 DB, community has collected funds according to their capacity for the remaining they are looking towards government. This period 3 self help sewers laid in Chak No. 14,138 DB and Madina Colony. Earlier assisted by SHED, TMA laid 1,060 rft. main sewer in Hafiz colony and secondary sewers 2,200 rft. in Chak 68 DB. In 117DB with MPA grant of Rs. 107 million a sewage pond is being converted into a park. Here community mobilization is in progress for laying the connecting lane sewers.

2) **Research and Awareness for Community Empowerment (RACE) - Jalalpur Pirwala/Lodhran/Kehror Pacca:** For Jalalpur Pirwala/ Lodhran/Kehror Pucca (Population 35,000/1,00,000/60,000), the NGO Race is being supported to extend the program. From Jan'09 to June'12 small core fund support was provided alternatively by ACHR and MIsereor. Team comprises of a social organiser and a technician. Total 157 lane sewers were laid on selfhelp (3 this period), 70 technically supervised some others mobilized. In Lodhran, Jallah Arain/Kehror Pucca. 859 houses invested Rs. 3,675,564 on sewers and latrines. For more lanes, community mobilization continues. This period desilting of 798 rft. sewer in Basti Faizabad, Jewan wala Younus. Technical support for 3 house connections provided in Basti Ghair city. Two youths were trained on low cost sanitation model. In Jallah Arain wall of EM-STU financed by MoE few years back, has collapsed due to heavy rains. Community requested RACE team to provide technical support for its rectification. Earlier work was undertaken on self help at a cost of Rs. 16080. For the desilting of Treatment Unit a peter pump is required for which money collection is in progress. A secondary sewer 1,860 rft. is in progress at Sultan Jahanian.

Earlier map and documentation of the sewage disposal system of Lodhran city was completed. 70% work of sewerage and water supply has been completed by govt. thru local MPA, residents of remaining area being mobilized. On request mapping and documentation of Chak No. M 97 (Chau mor) undertaken, here technical support provided for the self help sewers.

Race team's design and estimate for Islampur (Kehror Pacca); 4700rft main sewer line. T.M.A Kehror Pacca approved this proposal costing Rs.8.9 million. Work is on going; 2,500 rft completed (this period 700rft).

Map, documentation and digitization of the nearby town of Dhanot was earlier completed. Community mobilization continues for internal development and refunctioning of existing system. RACE team organized community for O&M of existing sewerage system. This period 378 rft. box drain completed in 5 merla scheme.

3) **Gender Unity for Integrated Development (GUID) - Basti Malook, Multan:** is being trained by Hamet for work in their town, comprising of 2,500 houses. Since July'13 a small core fund support has been initiated. Last period map of Adda wali completed, documentation is in progress. Motivated by GUID team 3 lane sewers were laid. For 3 lane sewers estimate provided this period, money collection in progress. This period meeting held with community; Basti Okann, Mohallah Ghosia.

Earlier on community's request GUID team prepared proposal for external sewerage, councilor is lobbying with local MPA to include this in next ADP. Total 52 lane sewers were laid on self help (30 technically guided since July'12, 322 houses have invested Rs. 1,443,008 on latrines and lane sewers. This period desilting of two lanes in Ghosia Hafizabad. OPP-RTI team member regularly visits GUID for on site guidance and support. This period one nala 148 rft. completed by Govt. at Basti Taragar.

Contact details are: Khalid Waraich, Basement Abdullah Plaza, Near Children Park, Tehsil & District Lodhran, Punjab. Phone: 0608-362020-362030. E-mail: hamet.sp@gmail.com

4)Sehar Development Organisation (SDO) – Mailsi, Vehari: NGO, SDO is being trained by Hamet to initiate work in Tehsil Mailsi which has a population of 1,35,000. For the town committee Karampur, map and documentation of the existing sewage disposal system was earlier completed. Maps of Sheikpura, Mailsi, Muraadwala and Gharibabad were completed. Documentation shows that in most areas govt. sewers and drains exists. In the remaining, mobilization for self help sewers held in Gharibabad Mohallah Muradabad Sheikhpura, 2 estimates provided in Mohallah Muradwala. In 24 lanes (3 last period) self help sewers 3,674 rft. have been laid by community, (6 technically guided) 153 houses have invested Rs. 7,09,382 on sewers and latrines. Desilting of external sewer 263 rft. carried out in Mohallah Sheikhpura, coordinated by community and TMA. (Report not received)

For expansion in the cities/towns of Punjab province an important aspect is the training, advocacy and support role being played by Hamet.

1.6.4 Sahil Development Organisation (SDO) – Naushehra Virkan

Around January'11, NGO SDO guided and trained by partner Muawin initiated work in Tehsil Naushehra Virkan, district Gujranwala. Since March'11, a small core fund continues. Total 90 lane sewers a secondary sewer 15,337 rft.were laid on self help (one lane sewer laid this period), 937 houses contributed Rs. 4.237 million for latrines and lane sewers. For more lanes there is mobilization and provision of plans and estimates. Mapping and documentation of this town (comprising of 18 settlements) completed by SDO, Ali pur Chatha, Tatley Aali digitize map completed earlier. Mapping of 30 areas 5 in Tehsil Kamoki and 25 in Tehsil Naushehra Virkan completed. Three maps (Mari Bhindranb,Grid Station, Bopra Khurd) completed this period. Of 3 (Kole Aala, Budha Khoh and Depay pur is in progress). OPP-RTI member periodically provides onsite guidance on social and technical aspects of the work.

Contact details are: Zahoor Ahmed Farooqui, Fatima computer plaza, opp: excise & taxation office, Gujranwala. Phone: 055-3002098, Mobile: 0345-8686333, E-mail: grwsahil@gmail.com

1.6.5 Organisation for Health and Development (OHD) – Jampur - South Punjab:

Jampur is a city in District Rajanpur South Punjab having a population of around 1,00,000. Both the city and the villages were devastated by the floods of 2010. After the floods OHD worked with partner Muawin on a project for providing sewage disposal for villages in Jampur.

Since Oct'11 members of OHD paid several visits to OPP-RTI, observed the work on site received training on mapping/documentation, technical design and guidance on community mobilization. Since Jan'13 a small core fund support has been initiated. Total 13 lane sewers (1 this period) 1,780 rft. and one secondary sewer 524 rft. serving as disposal for total 87 houses, with people investment total Rs. 4,503,832. Community mobilization in more lanes continues. One EM-STU 4'x12' was earlier constructed in Faisal colony technically supervised by OHD, people investment Rs. 21,500/-. Mapping of 13 settlements (C.Qazi wala Koh, Fareedabad, Farooq town Peoples colony,

Faisal colony, Jehangir colony, Shah Jamal colony, Rehan town, Mohammad wala, Fareedabad-2, Awami colony, Irfanabad, Kotla Peeran Shah) completed earlier, of Kotla Peeran Shah last period. Documentation of the existing sewage disposal and water supply system of Awami colony and Irfanabad completed last period. Earlier OPP-RTI members provided on site support for preparing a sewerage plan for Jampur city. Team members of OHD and NSF were also trained during this exercise. Design & estimate for main (12,020 rft.) and secondary sewers (32,574 rft.) completed. Local govt. ensured provision of funds for the above project thru a special package of Punjab CM. Last period 5,200 rft. main lines have been laid by the govt. at Kotla Road (this period 2,700 rft.), OHD team is monitoring the work with the assistance of local communities. This period 2 community activists, 5 labour and 4 youths trained.

1.6.6 Nawan Sojhl Foundation (NSF) – Jampur

After the 2010-11 floods NSF worked with Muawin on a project for providing sewage disposal for villages in Jampur, members of NSF paid several visits to OPP-RTI, received training on mapping/documentation as well as guidance on initiating the low cost sanitation program. Total 60 maps completed, this period 6 maps completed, motivation in newly mapped areas continues. Total 49 self help lane sewers 9,853 rft. laid. comprising of 668 houses, peoples investment is Rs. 2,381,414. Periodically OPP-RTI team member provide guidance for lobbying for implementation of sewerage plan of Jampur city, construction has started which is jointly followed by NSF & OHD. Earlier two EM-STU's were constructed in Talai wala, 89 houses contributed Rs. 55,100. Mobilization of work initiated in Kot Tahir, Shahwala and Darkan wala. Earlier 2 members team of Prime Welfare Foundation was trained on mapping, documentation, planning and estimation. PWF is initiating low cost sanitation program in UC Harand. Rectification survey; 7 lanes in Jampur Sharki last period. Rectification of 311 rft. sewerage line completed this period.

Contact details are: Muhammad Usman, Phone: 0604-567766, Mobile: 0334-6179896, E-mail: nawansojhla@gmail.com

1.6.7 Sanghar Welfare Development Support Organisation (SWDSO) - Sanghar – Sindh

The program was initiated in June 2003 by another organization – SCWS. Core fund support from Water Aid continued till April'11, when due to the consistent organizational conflicts work came to a standstill, so further funding was stopped. Total work completed by SCWS was on 44 lane and 5 secondary sewers, with 542 houses investing Rs. 2,159,935/-.

Since Feb'11 with the project coordinator independently extending work as the “Sanghar Welfare Development Support Organisation”, core fund support was extended which continues. One visit was made by OPP-RTI member to guide the work, community mobilization and money collection for self help sewers continues in Shahpur Chakar and in the nearby villages. In total 21 lane sewers and two secondary sewers are completed (1 lane sewer laid this period) 96 houses contributed Rs. 8,74,479 for lanes. This period on request plans/estimates for 20 lane sewers were provided in Ali Murad Baghrani, Ramzan Sanjrani and Khair Khan Sanjrani. Total four EM-Sewage Treatment Units (EM-STU) and the connecting sewers serving 54 houses were completed on self help in village Mesu Kerio, Jamaluddin Dehri, village Taj Mohammad Dehri and village Lemon Khan Talpur. In village Umerabad where money collection was being carried out since last year work completed on land filling, in four lanes costing Rs. 80,000/-, last period. There is recovery for self help sewers in village Ghulam Kerio. In Kamil Shah Colony two old sewers rectified on self help, costing Rs.74,000/- (last period one lane). Lately TMA Khadro has approved funds of Rs. 9.0 million for implementation of sewerage plan prepared in 2006 by SWDSO. Work started on two secondary sewer by govt. 3,250 rft. costing Rs. 4.9 million at Ward No.4, 5, 6,7 and Khadro. This will serve 350 houses, work is technicaly supervised by SWDSO team, total 3,650 rft.(this period 2,150 rft.) completed. Last period work started on Amanullah Dahri 1,500rft.

Together with OPP-RTI support to partner RADO in Sinjhor, WWO in Sakrand and to 2 new organizations in Samaro town and Sahdadpur continues with regular review meetings at OPP-RTI and guidance on site. Details of their work are in the preceeding sections.

Contact details are: Sobho Khan, Kamil Shah colony, Shahpur Chakar, District Sanghar, Sindh.
Phone: 0344-3739165. E-mail: sobho_khan@yahoo.com

1.6.8 Rural Area Welfare Development Organisation (RAWDO) – Sinjhor Sindh:

It is a town, in district Sanghar, having a population of 30,000. Mapping, documentation and level survey of the town was earlier completed. Small core fund support initiated in April 2008 continues.

Total 43 lane sewers are complete (one lane sewer laid last period), 313 houses contributed Rs. 16,37,612 for lane sewers, 2 secondary sewers and latrines. Technical support and community mobilization continues. In 4 lanes there is money collection. This period one EM-STU completed connecting sewers serving 4 houses were completed on self help in Village Rasool Bux Khaskheli. This period mobilization meeting held in Allah Sayo, Ahmed Khan Khaskheli village Gajri and Sayo Khan Rajar. Two houses made house connection in village Rasool Bux. For guidance this period, on site visit was made by OPP-RTI member together with the coordinator of SWDSO. For “katchi goth” work has begun, disposal is completed, laying of 600 rft.(this period 300 rft. completed) open drain completed this period. Total cost of the project is 12 million. RAWDO is monitoring the work. This period map of 1 community (Ahmed Khan Khaskheli) completed. This period 300 rft. laid by Govt in Ward No.6, Sinjhor City.

Contact details are: Mohd Buksh, Ward No.2, Near Bachal Chowk, Sinjhor, District Sanghar. E-mail: rawdo.sinjhor@gmail.com Ph: 0342-8181082, 0346-3643565

1.6.9 Watan Welfare Organisation (WWO) – Sakrand Sindh:

The town has a population of about 30,000. Since early 2011 WWO has initiated work in the town as well as in the nearby villages. Since March’11 small core fund support continues. Plan/estimates for self help sewers have been provided for total 188 lanes (8 this period) in the town. In the village “Majeed Kerio” (comprising of more then 1,000 houses) guided by WWO total 26 lane sewers 3,865rft. have been laid on self help (2 this period) 134 houses have invested Rs. 1,081,113 on sewers and latrines. In more lanes there is money collection. In village Mulla Sand Kerio, Satpuri, follow up visit held, here community, laid 200 rft. secondary sewer and STU was completed last period. 780 rft. secondary sewer is now completed, 72 houses contributed Rs. 152,438 for the sewer, 10 latrines were also constructed. This period construction of 3 latrines was completed in Majeed Kerio and Mulla Sand Kerio. Last period map and documentation of Sherwani Mohallah Ward No.1 completed and map of village Hayat Kerio and Umar Bodlo were in progress. WWO members regularly receive guidance on site and at OPP-RTI. Earlier 3 EM-STU’s have been constructed in village Abdul Wahid Somro and Mulla Sand people are using treated sewage for kitchen gardening, 16 houses contributed Rs. 91,000.

Contact details are: Aijaz Ali Keerio, post office Majeed Kerio, Taluka Sakrand District Shaheed Benazir abad (Nawabshah) post code 67211, E-mail: www.org.pk@gmail.com Ph: 0300-3629931, 0346-3863387

1.6.10 Sindh Rural Development Organisation (SRDO) – Samaro, Umerkot:

Sindh Rural Development Organisation (SRDO) – Samaro, small core fund support initiated in July 2014. Construction of EM-STU and a 50 rft. sewer in village M.Ram Malhi completed earlier, 12

houses benefited. Total 8 lane sewers and one secondary sewer are completed (1 lane sewer 100 rft this period) 2,550 rft. 160 houses have invested Rs.8,59,081. Eight EM-STUs' construction is completed (this period one in Kolhi colony) 185 houses benefited. In village Melhur Kolhi one EM-STU and 100 rft. sewer completed. In village long Khaskheli one EM-STU completed, material for 400 rft. lane sewer is being organised. There is community mobilization for collection of money in Long Khaskheli, Girdhari Bheel, Mohajir goth, Kolhi colony, Jalal Shah colony, Baloch colony, old Samaro, Khemeso Solangi, Mehmood Shahani Long Khaskheli. Map/documentation of Kolhi colony, Baloch colony, village Moti Ram Malhi, Mehmood Shahani, Jalal Shah colony, Rahooabad, Doctor Poonam Chand Kolhi, Hassan Shah Baghwan, Hema Ram colony, Nato Ram Malhi and Preemchand Mehawar (this period 2) is completed. OPP-RTI team member visited SRDO this period. Two members of SRDO team got the technical training. Last period construction of one latrine was completed in Rahooabad.

Contact details are: Faiz Mohammad, SRDO head office Court Road Samaro, District Umerkot, E-mail: sind_rdo2007@yahoo.com, Ph: 0238-551303-551051.

1.6.11. Zahra Humanitarian Organisation (ZHO) Shahdadpur:

A small core fund support has been initiated since April'2014. ZHO is working in the villages around Shahdadpur city. Total 11 maps and documentation completed, (village Lutaf Ali Wagan, village Lal Muhammad Waso, Saiful Khan Shar, Mir Hassan Brohi, Rasool Buksh Jatoi, Mir Mohd. Kolei, Pir Buksh Brohi, Allah Bux Raees, Gul Hassan Shar, Muhammad Hasan Brohi), Dhani Baksh Raees and Aacher Brohi map is in progress. Technical support for plan/estimates provided to ZHO. There is community mobilization for collection of money in Lal Muhammad Waso, Mir Hassan Brohi, Mir Mohammad Kolei, Saiful Shar, Rasool Bux Jatoi, Lutaf Ali Wagan and goth Dhani Buksh Raees. ZHO is trying to create linkage of women savings group with the sanitation programme in villages. Total 5 lane sewers 750 rft. and one EM-STU (last period) constructed on self help in village Lutaf Ali Wagan comprising 61 houses investment Rs. 0.243 million. Last period construction of 6 latrines were also completed.

Contact details are: Zahid Hussain, Village Lutaf Ali Wagan, Taluka Shahdadpur, District Sanghar. Ph: 0300-3048697, 0333-7093547.

1.6.12 Baghwan Development Organisation (BDO) – Battagram – KPK province:

The NGO evolved thru the earthquake relief and rehabilitation program, (reported till the 121 QPR). Since July'09 core fund support has been provided, expand the program of water supply on self help. By Nov'09 on site training for mapping and documentation was initiated. Mapping and documentation of the completed water supply projects in 50 villages (thru the earthquake rehabilitation projects) and of the existing sewage disposal system in these was undertaken. Of total 120 villages mapping and documentation is complete (1 this period).

In the villages mapped/documented, besides the water supply distribution laid on self help, work on self help sewers also exists in a number of lanes. On request TMA is provided the village maps for development of roads and other schemes. Communities are also using the maps for lobbying for external development.

By April'11, finances for external water supply were mobilized for 13 more villages. By April'12 works were completed. 5,569 families invested Rs. 5.16 million in 32,820 rft. lane lines and 12 storage tanks, while for the main line (75,500 rft.) plus a storage tank Homeless International funds of Rs. 6.48 million were used. Considering the low cost designs (estimated at Rs. 3,000-5,000/family), community is being mobilized for undertaking both the external/internal works on self help. For 2 villages on community request, mapping and provision of design/est. was completed this period.

This period 2 case studies completed. Self help. repaired 5,500 rft. in Sirya, Makria, costing Rs. 0.11 million.

Water Supply Schemes completed: (Oct'13 to Aug'16)

Sr. No.	Area	Internal Development				External Development			
		Length (rft.)	Houses	Self (Rs.)	Govt.	Length (rft.)	Houses	Self (Rs.)	Govt. (Rs.)
1	Pagora	4000	210	135000	-	6000	-	-	350000
2	Derehey 1 & 2	3000	130	155000	-	11500	94	-	-
3	Lundey	4000	130	90000	-	-	-	-	-
4	Pomang Gudyar	-	-	-	-	4000	80	365000	-
5	Colony Barpaow	-	-	-	-	4000	85	400000	-
6	Kardwar I, II	3000	70	250000	-	1500	57	180000	-
7	Derehey Chaancha	3000	70	149100	-	-	-	-	-
8	Gajbnori Kazpaow	4000	130	100000	150000	5300	189	187500	-
9	Siray	1600	70	93100	-	5000	-	300000	-
10	Barpaow Gajbori	1000	173	100000	-	14000	173	370000	-
11	Sirya/ Kalla	4000	100	300000	-	25000	358	717000	300000
12	Soyfyan	600	56	80000	-	4500	448	30000	-
13	Makria	-	-	-	-	2500	154	50000	-
	Total	28200	1139	1452200	150000	83300	1638	2599500	650000

Since Nov'10 BDO has been involved in the relief and the rehabilitation of the flood affected families in Shangla. For 300 houses support for shelter (tin sheets for roofing over a room per house) was completed.

Considering the potential for expansion, three aspects are regularly being focused – the financial discipline, the organizational setup (team work) and the strengthening of social and technical skills.

1.6.13 Support to other organizations:

- **Global Development Organisation (GDO)**, Keror Lal Eason, South Punjab on request OPP-RTI team twice visited the area and prepared a plan and estimate. Consisting of 4,250 rft. mains, costing Rs. 3.87 million. GDO is lobbying MPA, TMA and community for funding this project. Last period one EM-STU 10x3.5 constructed in Basti Qadir one school benefited investment Rs. 0.025 million, two latrines completed. Last period one EM-STU 10x4 constructed in Ward No.7, investment Rs. 0.025, 5 latrines completed. Last period two lane estimate, provided to community.
- **Prime Welfare Organisation (PWO)**, Harand, South Punjab requested by CBO, for training in Sanitation Program, were advised to contact OPP-RTI partners in Jampur for mapping and related training. PWO members undertook training from NSF in Jampur. One main line, two secondary, 2 internal lines (24000 rft) costing Rs.5.5 million plan estimate completed last period, provided to community at Pannah Ali and one EMSTU costing 25,000.
- **Kunnar Women Development Program (KWDP) – Balakot, KPK**, NGO, KWDP has initiated work. Mapping and documentation of 10 villages completed (1 this period). Water supply being a major crisis in the area, they took training of design/estimates for water supply scheme from BDO in June 2014. Kunnar's design proposal for water mains' design in Jur Payyal UC-Ghannol, Balakot, approved by the UC-Nazim for internal distribution community is motivated. Last period one water tank 6'x6' construction completed by govt. 4,500 rft. main water line laid. this period one water tank (5'x5') construction completed by govt. at Rorkan.

1.6.14 Effective Microbe – Sewage Treatment Units (EM-STU's):

In many places sewage is being disposed into ponds. Small treatment units (STUs) are being focused for villages and some small towns. Standard designs serving 10-50 houses and leaflet for extension and demonstration are being disseminated. Forty one EM-STUs are functional, two in Khairodero village near Larkana, one in Sharif Sehto village in Shahdadpur, four in Sanghar, two in Sakrand, two in Sinjhor, one in Khairpur Tamewali, one in Jallah Arain, one in a village in Battagram – Mansehra, seven in Uch Sharif, eight in Samaro – Umerkot, two in Kotla Moghla, one in Faisal colony and two in Talaiwala in Jampur one in Lutaf Ali Wagan in Shahdadpur. Related to flood rehabilitation work in the villages of Sindh and Punjab, 4 EM-STU's have been constructed; one in village Paryalo Chawro in Jamshoro, second in village Pir Buksh Mugheri in Badin, third in village Dost Mohammad Chachar in Ghotki, fourth in Village Basti Qadir and fifth in Ward No.7 in Keror Lal Eason, Layyah.

Research on the design and functional management of the STU is initiated. Plan is to scale up the model as a rural sanitation system in villages where sewage disposal is not present. Partner organizations are being supported for the research. Two tanks at the office premises have also been rehabilitated to research on the types of treatment (settling process and slow sand filter).

1.6.15. Community Development Network (CDN), Women Saving Groups Network and the Youth Technical Network:

It is a partners network, about 70-80 partner NGOs/CBOs from all over Pakistan regularly participate in the meetings. As the venue is rotated among partners there is the opportunity to understand each others work and share the developments. Increasing link up, understanding of each others work and supporting it, strengthening joint advocacy in influencing policy and understanding some larger issues and solutions are the dynamics of the process. Besides updates on partner's works, several new participating organizations introduce their work. Increasing participation of women and youths has been observed. The 42nd CDN meeting was held in Oct'16, at Islamabad hosted by IRRIC. About 43 partner organizations and some local groups attended. Parallel to the CDN the Youth Technical Network also held its 13th meeting, 17 youths from 10 organisations attended, some details are in section 2.3.

1.6.16. National Sanitation Policy

The National Sanitation Policy (NSP) 2006, has adopted the model of component sharing (CS) and the lessons learnt.

1.6.17. Training Workshop

A new initiative to provide a local platform for partner organisations to discuss and learn from, each other's works. Strengthening contacts among partner organisations of Sindh/ Punjab so that a trained organisation is able to train a new organisation on mapping/documentation/mobilization, building confidence among partner organisation, community activists and youths. Last period the 3rd workshop was held in Samaro, Sindh organised by SRDO. 32 participants attended from 7 partner organisations of Sindh. Fourth workshop is scheduled at (GDO) Keror Lal Eason in Nov'16.

1.7 Working with NGOs, CBOs and Government in Karachi

Detail statistics of work in Karachi, (outside Orangi), is given in section 1.8.1. For Orangi it is in section 4.3.

1.7.1 Survey of SKAA, KMC *Abadis* and BOR Goths

This quarter mapping survey of 5 more *abadis*/goths was completed. Survey of total 513 *abadis*/goths outside Orangi has been finalized. Of these 62 belong to SKAA and 451 are KMC/ Board of Revenue (BOR), *abadis*/goths. Statistics of total 453 *abadis*/goths was finalized (5 this period). Statistics shows 24,475 lanes and 2,53,034 houses, people have laid sewers on self help in 29.40% lanes and water lines in 25.30% lanes, investing Rs 168.131 million and Rs 134.981 million respectively. Government's work on internal development also exists i.e. sewer lines have been laid in 33.593% lanes and water lines in 20.09% lanes. Refer detail statistics in section 2.9.1.

The first, second and the third volumes, each of 100 *abadis* (peoples housing) with maps, statistics and analysis has been published. Work on the fourth (Orangi) and fifth (Goths) volumes is in progress. (Volume IV's statistics are being updated: out of 13, 10 UC's documentation is complete (for security reason survey in Ucs 1,2, & 13 could not be held),.Compilation of volume-V has been delayed new target is next quarter.

1.7.2 Khuda Ki Busti – Taiser Town – Saiban

Land supply for the poor is the focus of the NGO 'Saiban'. Khuda Ki Busti (KKB-III & IV) located in the periphery of Karachi, is their third and fourth project. 100 acres of land (acquired from the govt. around 1998) with 2,910 housing plots was planned and settled. Owners have paid the cost of an 80 sq.yds. plot in installments to Saiban, which has an office in the settlement.

Saiban has facilitated provision of social and physical infrastructure with the amount collected as development charge (included in the cost of the land). Statistics of the self help sewerage works are in section 1.8.1 reference Khuda ki Basti. Maintenance of the system is regularly managed by Saiban. Last period one secondary line 780 rft. laid by self help, costing Rs. 0.237 million.

Last period request was received from the community (a member of the women saving group) and Saiban for the rectification of the sewerage system in the area. OPP-RTI has planned a new disposal for the settlement along with two more goths; Rozi and Hasan Brohi goth benefiting from the proposal. Plan/estimate provided to the communities and govt., mobilization is under way.

1.7.3. The Technical Training Resource Centre (TTRC), The Tameer Technical Centre (TTC) and the Peoples Mapping Centre (PMC) - Karachi

Technical Training Resource Centre (TTRC): Youths trained as community architects setup the TTRC in 1998. Based in Ghaziabad a settlement in Orangi town, **TTRC has extended its work out of Orangi.** Besides supporting the construction of houses in Orangi and physical upgrading of schools (refer details in section 5.4), TTRC conducts training courses on mapping/documentation, drafting/CAD, level survey, planning and costing. A small fee is charged. Total 87 training courses have been conducted, comprising of 233 participants, for three more is in progress.

Supported by modest fees, TTRC has completed mapping the goths of Karachi including documentation of infrastructure. Total 33 goths of Kemari and Gadap towns have been mapped, and digitized.

TTRC has also provided technical support for the EM-Sewage Treatment Units, specially to the villages in flood rehabilitation project.

For the OPP-RTI's flood rehabilitation work mostly in Sindh, South Punjab and in Balochistan, being managed thru 27 partners (in the villages surrounding 2 cities and 25 towns), TTRC continues to assist with the on site guidance and documentation of the work (related to shelter, hand pumps and shelter for schools). Last period monitoring survey visits were made to 4 partners work in their respective town/villages. OPP-RTI members also undertake monitoring visits.

Mobilizing women's savings groups in settlements in Orangi towns: Since Jan'10, 19 groups in Orangi 500 women have saved Rs. 17,57,236. Thru the savings 335 members have been supported with credit ranging from Rs. 2,700 to 30,000. The credit has been used mainly for their children's health and education needs, loans for livelihood have also been initiated. More women are joining as members, thru the OPP-RTI's Housing Saving and Loan Program, total 90 members (9 last period) were provided housing loans, of Rs. 24,000-40,000 each, for ventilation and other improvements. On site technical guidance is being provided thru UTC, more requests for housing loans are under process.

TTRC is a strengthened organization on the three aspects: social /technical skills, organizational setup and financial system. Earlier small core fund support was provided, from Jan'11-Dec'12 the Asian Coalition for Housing Rights provided direct core fund support. From Jan'13 Misereor has provided support. In June last year it received Perween Rahman fellowship award. This fellowship was utilized for the mapping and documentation in Baldia town. This period report not received.

Contact details are: Mohd. Sirajuddin, M-299 Sec 11½, Mujahid Colony, Ghaziabad, Orangi Town, Karachi. E-mail: sirajtttc@yahoo.com, thettrcorangi13@yahoo.com, Mobile: 0333-2358301

Tameer Technical Centre (TTC): Trained and guided by OPP-RTI another youth organization the Tameer Technical Center (TTC) has evolved as a technical support organization since 2011. Besides supporting the housing program in Orangi and Gadap Town, TTC has conducted two training courses on basic drafting. Details are in section 3 & 5.4, as its work also relates to the Secure Housing Support Program and Low Cost Housing Program. In 2015 it received Perween Rahman Fellowship Award. This fellowship was utilized for the housing program in goths.

Efforts are to strengthen the organisational setup and financial system of TTC as an organisation.

Contact details are: Hafiz Muhammad Danish, Shahrah-e-Qazafi, Khairabad, Zobu Goth, Manghopir UC-8, Gadap town, Karachi. Phone: 0334-3651094. E-mail: h.mdanish@yahoo.com.

Peoples Mapping Centre (PMC): Since Oct'10 youths who are part of the mapping program (reference section 2.3) have set up the "Peoples Mapping Centre" operating from OPP-RTI. Effort is to strengthen the PMC as an independent organization, mapping and documentation of the goths is the focus. Of total 51 goths work was completed with backup support by OPP-RTI. There is contact for mapping in more goths.

Contact details are: Abbas Khan, House No. M-172, Sector No. 11-1/2, Orangi Town, Karachi. Phone: 0344-3579275.

A youth support organization has evolved: The Ujala Technical Centre (UTC) - in Orangi is a group of four youths being trained/ guided by TTRC to support the Housing Saving and Loan (HS&L) program. Small core fund support is provided by OPP-RTI.

1.7.4. Support to 'goths' (rural settlements fast becoming urban) in Karachi – including the water supply provision

Details of the related Secure Housing Support Program are in section 3. Here the provision of sewerage/drainage systems for the goths is being presented. There is advocacy with the govt. for provision of bulk infrastructure, while support to communities continues for internal development.

Plan, design and estimates for bulk infrastructure for the 1,183 goths (that have become urban settlements) is being prepared: OPP-RTI research shows that out of the 2,173 goths,

mostly in the three peripheral towns of Karachi, 1,183 goths have become urban settlements, (with fast subdivision of agricultural land - mostly since 2006 onwards). By Feb'11 the related master map was completed, as more goths are becoming abadis (urban) the map is being regularly updated. Earlier in meetings, with the govt. agencies need emerged for the development of a master plan for bulk sewage/drainage disposal for these goths. OPP-RTI is preparing, in phases, the plan for sewage/drainage disposal for the same. **Work explained below in 185 goths and more then 45 nearby abadis (total 42 projects – 2 new this period) is part of this plan.** Implementation is underway.

Mapping of goths and documentation of the existing infrastructure continues. These maps are also related to the Secure Housing Support Program, so the details are in section 3.

Development of main nalas as box drains (serving 105 goths and more then 45 settlements):

Sr.No.	Name of Nala/Drain	Status
1	Khairabad drain	By Nov'09 KMC began the construction of Phase-I. (16,000 rft.) of the Khairabad drainage channel. 14,650 rft. box drain is complete, it has been jointly agreed to include the balance 1,350 rft. in the phase-II of last project. The box drain serves as the disposal for sewage and rainwater for 17 goths and 2 settlements in Gadap town (and also 2 settlements in Orangi town) comprising of 2,200 lanes, about 40,000 houses. OPP-RTI design was earlier approved by the City Govt. and budget of Rs. 189 million was sanctioned for Phase-I&II (total 32,000 rft.). OPP-RTI has supervised construction, while mobilizing community to monitor work. Effort continues for the start of work on phase-II drain. Meanwhile laying of the self help lane sewers connected to the drain is continuing.
2	Secondaries connecting Khairabad drain	Survey for designing the large secondary sewers connecting to the K'abad drain has remained stopped since March'12, due to security issues
3	KAN drain	Construction of KAN drainage channel I & II (9,333 rft.): By June'12 work was completed (6,625 rft. developed as box drain and 2,025 rft. developed as a main sewer). This drain serves as disposal for sewage/drainage for 2 settlements and 8 goths (about 6,000 houses). For supporting internal development, documentation of the existing sewage disposal system in 8 goths was earlier completed.
4	Lasi goth nala	Development of the Lasi Goth nala as box drain, 12,100 rft serving 14 goths, and 2 large abadis costing Rs. 116 million (as designed by OPP-RTI). Last period design and estimate of one branch nala 1,000 rft. costing Rs. 5.598 million was prepared. By June'12 the project was sanctioned and included in the Sindh govts. budget of 2012-13. As a result of followup contacts/meetings with the officials of the P&D Deptt. and the KMC engineers work was contracted. Community activists and goth elders are in contact for monitoring onsite work. Work on site has begun total 6,600 rft. box drain completed (this period 600 rft.). For supporting internal development, planning for 6 goths was completed and provided to the community.
5 & 6	UC-8 Gadap town (Ramzan and Yar Mohammad goth)	Plan/design/estimates for box drains and trunk sewers for 2 projects in Gadap town UC-8 (costing Rs. 127.91 million, serving 10 goths and 12 Abadis population 0.27 million was earlier provided to the KMC. As a result of continuous advocacy by June'12 the project was included in the Sindh govts. budget of 2012-13. Further

		contacts with the govt. officials, goth elders/community activists, continues as a result tendering process was completed in the last quarter of 2013. Work on site has begun. Ramzan goth; total 4,750 rft. drain completed (this period 250 rft.), total 4,290 rft. main sewer also completed. In Yar Mohammad goth total 5,700 rft. box drain completed (this period 300 rft.). Main sewer also completed 4,084 rft.
7	A.Rehman goth nala, Bin Qasim town	Survey, design/estimates for the natural nala development in Bin Qasim town serving 10 goths and one abadi (ref: A.Rehman goth project) was earlier completed and provided to the KMC engineers. With continued advocacy, the project was approved by the Chief Minister. However, due to interim govt. setup during elections it has all gone in vain, therefore, was resubmitted for approval. OPP-RTI team held meetings with KMC Engineers.
8	Sungal drain	Sungal drain 8,660 rft. costing Rs. 54.39 million serving 2 large goths and several settlements. With 800 rft. drain completed by March'12 further work has remained stopped.
9	Chakra goth drain	The Chakra Goth drain 7,000 rft. ,earlier designed, costing Rs. 38.24 million serving 2 large goths and several settlements is under process for approval by the govt. OPP-RTI team held meeting with KMC Engineers.
10	Chakor nala	For the Chakor nala 46,480 costing Rs. 200 million serving 6 large goths and 2 settlements, plan/est. were earlier prepared and provided to the govt. Earlier, requested by the KMC and community activists, for the priority phase (i.e the "Bakhtawar goth nala" 15,325 rft.) revised plan,estimate was completed and provided. OPP-RTI team held meeting with KMC Engineers.
11	Moach goth nala	Moach Goth nala 70,705 rft. costing Rs. 695.62 million serving 19 goths and 3 large abadis, survey plan/design/est.was earlier completed. With followup advocacy earlier, CM approved the project. Earlier the priority phase of the nala, 23,100 rft., has been resubmitted to the CM's coordinator for approval.
12	Qalandaria drain	For the Qalandaria box drain 17,200 rft. costing Rs. 42.67 million serving 2 goths and many abadis construction work of phase-I 10,200 rft. was earlier completed, for the remaining phase-II followup advocacy continues.
13,14 & 15	Sherpao, Chashma, Jumma Kalmati goth nalas	For 3 natural nalas in Bin Qasim town, that serve as disposals for sewage and drainage, design and estimates of the box drains were completed earlier. It was provided to CM's coordinator for Sindh govt. for approval. However, due to interim govt. setup during elections it has all gone in vain, therefore, being resubmitted for approval. a) Sherpao box drain 13,720 rft. serving 4 large abadis b) Chashma goth box drain 5,895 rft. serving 3 goths and 5 abadis and c) Jumma Kalmati goth box drain 10,350 rft. serving 10 goths and 9 abadis. OPP-RTI team held meeting with KMC Engineers.
16	Haji Mehmood goth	Haji Mehmood goth box drain 9,030 rft. serving one abadi and 7 goths (UC-8 Manghopir, Gadap town) plan/design/estimates completed earlier. This project provided to MNA Shahab Rahmani for the approval by the Govt.
17	Dhabeji (Bilal Nagar 1 & 2)	Dhabeji (Bilal Nagar 1 & 2 box drain 4,250 rft. serving two abadi (UC-Dhabeji, Thatta) plan/design/estimates completed last period.

Progress of work on other schemes, serving 80 goths:

Sr.No.	Name of Goths	Status
1	Dost Md Junjar and Haider Goths	In Dost Md Junjar and Haider Goths (comprising of 1,855 houses and 196 lanes) earlier, with OPP-RTI's technical guidance community mobilized more than Rs. 6.25 million for external development. Work onsite was earlier completed, 13,420 rft. main and secondary sewers were laid. OPP-RTI provided on site technical guidance. Internal development is in progress, total 73 lane sewers and 2 secondary sewers 16,968 rft. were laid, 1,219 houses invested Rs. 5.601 million on latrines and sewers. For more lanes there is money collection.
2	Ghani+19 goths (UC-4 & 5 Gadap town)	For the scheme comprising of Ghani and 19 goths plus many housing societies, (in UC-4,5 Gadap town), OPP-RTI designs for 14,500 rft. mains and secondary sewers costing Rs. 10.3 million, (prepared on the request of community activists) was earlier approved by the govt.. By Sept'11 work on site started, Govt. deptt. PHED has managed the project. OPP-RTI and community activists jointly monitored the laying of the main sewers, 15,025 rft. completed, earlier, community mobilization for laying the connecting lane sewers is underway. Money collection is in progress in 3 goths (Jatyal, Junjar and Ghani). In Ghani goth total 11 lane sewers of 3,308 rft. 9 lanes were laid on self help and 2 lanes laid by govt., supervised by OPP-RTI (4 last period). 201 houses invested Rs. 8,91,901 on the sewers and latrines. In more lanes work is scheduled to begin. For Junjar and Jatyal goths report is given below.
3	UC-8 Gadap (Manghopir Mazar area)	For UC-8 Gadap (Manghopir Mazar area) designs for main sewers serving 19 goths and 2 settlements were earlier provided to the area Naib Nazim. By March'11 work on site was completed, 9,900 rft main sewers were laid. Earlier documentation of the existing sewage disposal system in the connecting goths was initiated, of 8 goths completed. Community meeting held last period.
4	Dildar Umrani goth	Requested by the community activists of Dildar Umrani goth, earlier, plan/design was provided for the sewerage main connecting 52 lane sewers and serving 1,360 houses. By Sept'11 community mobilized funds from the govt., construction of the sewer main 1,370 rft. was completed. Mobilization for the self help lane sewers is ongoing. Total 12 (1 last period) lane sewer 2,665 rft. was laid on self help, supervised by OPP-RTI. 218 houses invested Rs. 948,602 on latrines and the sewers.
5	Wazir Brohi Goth	Wazir Brohi Goth (51 lanes and 576 houses) plan/estimate for a main, 3 secondary sewers and a sample lane sewer were earlier provided to the community activists. Total 20 lane sewers, 1 secondary sewer (4,060 rft.) was completed on self help 315 houses have invested Rs. 13,95,840/- on sewers and latrines. Last period one secondary sewer laid by govt. 200 rft. cost Rs. 0.113 million. For more lanes money collection is in progress.
6 & 7	Ghazi goth UC-8 Gadap Shah Khalid colony	In Ghazi goth UC-8 Gadap comprising of 140 lanes and 1,652 houses, community mobilized govt. resources for the sewer mains. OPP-RTI and community supervised the on site work, 4,820 rft. main sewers 12"-15" dia were laid costing Rs. 14.64 million. Work on disposal remains stopped since June'12. These main sewers

		also serve a nearby abadi Shah Khalid colony comprising of 17 lanes and 234 houses. Earlier, on community request, map, plan/estimate for 3 secondary and 12 lane sewers were provided.
8	Junjar goth UC-5 Gadap	Junjar goth UC-5 Gadap comprising of 24 lanes and 676 houses, earlier plan and estimates were provided for 2 secondary sewers 1,045 rft. and for the lane sewers. The disposal is the govt. main sewer completed by July'12, reference project 2. On community lobbying, earlier, one secondary sewer 440 rft. has been laid by the govt. costing Rs. 1,78,332. Work on 14 lane sewers (3,683 rft.) completed on self help (last period 1 lane sewer laid), supervised by OPP-RTI. 281 houses have invested Rs. 1,468,490 on sewers and latrines. For more there is money collection.
9	Jatyal goth UC-5 Gadap town	In Jatyal goth UC-5 Gadap town, comprising of 16 lanes and 275 houses, on community request, earlier plan/estimates for 3 secondary and 13 lane sewers (costing Rs. 17.6 million) were provided. There was community mobilization. Earlier the govt agency PHED laid the secondary sewers 2,090 rft. costing 3.4 million. Community has started laying the lane sewers on self help. OPP-RTI has provided on site supervision. 9 lane sewers 2,518 rft. are complete, 172 houses have invested Rs 1.007 million on sewers and latrines.
10	Noor Md, Ahmed Brohi, Chanesar and M. Hussain Goths (UC-5 Gadap town)	For Noor Md, Ahmed Brohi, Chanesar and M. Hussain Goths (in UC-5 Gadap town) comprising of total 141 lanes and 1,849 houses, on community request map, plan and estimates for a main , 6 secondary and 90 lane sewers (costing Rs. 10.2 million) were earlier provided, community activists are lobbying govt. for the main /sec.sewers last period. Meeting held with MNA Shahida Rahmani to expedite the process of approval.
11	Muslimabad, Adam, Hindu and Pir Buksh Goths (UC-5 Gadap)	For Muslimabad, Adam, Hindu and Pir Buksh Goths (in UC-5 Gadap) comprising of total 93 lanes and 732 houses, on community request earlier, map, plan and estimates were provided for a main, secondaries and 36 lane sewers. By June'12 the PHED laid the main sewer 1,150 rft., connecting it to an existing trunk main. Community is lobbying govt. for laying of the secondaries. Meanwhile community mobilization continues for the self help lane sewers.
12	Jamali goth, including 3 more goths (Masoodabad, Bashir Shoulder and Gulshan-e-Baloch)	For Jamali goth, including 3 more goths (comprising of 143 lanes and 3,542 houses), Earlier on community request map, plan, and estimates were completed for one main, 3 secondaries and 82 lane sewers costing Rs. 9.04 million. An existing trunk sewer serves as the sewage disposal for these goths. Community is lobbying govt. for laying the mains. Earlier 800 rft. laid by a private builder, at a cost of Rs. 0.461 million. Work on 7 lane sewers and one secondary sewer 2,900 rft. completed undertaken by govt. (2 lanes and one secondary) and community (5 lanes) on self help and govt. 138 houses and govt. have invested Rs. 0.246 million.
13	Haji Mehmood goth (UC-8 M'pir Gadap town) including Haji Ameer Bux, Haji Abdul Raheem, Ghulam Hussain Goth, Haji	For Haji Mehmood goth (UC-8 M'pir Gadap town) including seven more goths (284 lanes, 1,264 houses) on community request, plan/est. for the sewage disposal system completed and provided to the community, one main sewer 3,990 rft. Cost Rs. 2.42 million and 9 secondary sewers 17,050 rft. Cost Rs. 8.266 million. Community activists are lobbying PHED for external sewers.

	Malik goth, Nabi Dad goth, Haji Mehmood goth and Aziz Brohi goth	
14	Abdullah Gabol Goth (UC-5, Gadap town)	For Abdullah Gabol Goth (UC-5, Gadap town) comprising of 113 lanes, 859 houses requested by a local activist map, plan, estimate were provided for two main and 6 secondaries 20,137 rft. costing Rs. 10.13 million. Community lobbying continues. Total 3,975 rft., 3,940 rft. main line completed (this period 700 rft.) costing Rs. 7.266 million laid by Govt.
15	Gul Mohallah goth (UC-5 Gadap town)	Gul Mohallah goth (UC-5 Gadap town) plan and estimate completed a main 1,500 rft. costing 0.533 million.
16	Pir Buksh goth, Mohallah Noor Muhammad Mengal (UC-5 Gadap town)	Pir Buksh goth, Mohallah Noor Muhammad Mengal (UC-5 Gadap town) comprising 37 lanes and 913 houses. Earlier on community request map, plan and estimates were completed, for a main, 6 secondaries and 37 lane sewers costing Rs. 6.012. Last period 1,500 rft. main line completed costing Rs. 0.940 million laid by Govt.
Note: For project No.14,15 & 16 files provided to MNA Shahida Rehmani for approval.		
17	Chutta Gabool goth (UC-4 Gadap town)	Chutta Gabool goth (UC-4 Gadap town) comprising of 47 lanes and 274 houses plan/estimate for a main, 8 lane sewers (costing Rs. 1.043 million) provided to the community activist. Total 18 lane sewers (this period 2) and 1 main line and two secondary line (7,274 rft.) was completed on self help. 450 houses have invested Rs. 32,07,700 on sewers and latrines, for more there is money collection.
18	Saifal Khan Mary goth UC-6 Gadap town	Comprising of 141 lanes and 1,749 houses, plan/estimate completed for a main 1,155 rft. costing Rs. 0.724 million and 9 secondary sewers 7,755 rft. costing Rs. 3.83 million and provided to the community. Last period government has approved 3,000 rft. main sewer, 1,000 rft. completed last period costing Rs. 0.494 million laid by Govt..
19	Noor Khan goth, Noor M. Burfat goth, Allah Rakhio goth, (UC-4 Gadap town)	For Noor Khan goth, Noor M. Burfat goth and Allah Rakhio goth in UC-4 Gadap comprising of total 288 lane and 2,289 houses. On community request map, plan and estimates completed last period. For 4 main line (4,130 rft.) costing Rs. 2.178 million, 11 secondary sewer (7,520 rft.) costing Rs. 3.665 million provided to the community. Last period 8 lane sewers 2,500 rft. sewers and one secondary sewer 500 rft. was laid on self help, 100 houses invested Rs. 1.253 million on latrines and the sewers.
20	Haji Zakaria Goth (UC-2 Gadap Town)	Comprising of total 103 lanes and 329 houses, on community request map, plan and estimate completed last period for 5 secondary lane (5,365 rft.) costing Rs. 2.703 million. Desilting and rectification work (5,440 rft.) costing Rs. 0.109 million. Last period 3 secondary sewers laid by Govt. 3,867 rft. costing Rs. 1.915 million.
21	Umer Brohi Goth (UC-6 Gadap town)	Comprising of total 76 lanes and 61 houses on community request map, plan and estimates completed last period for one main line (3,105 rft.) costing Rs 0.447 million and four secondary lines (1,100 rft.) costing Rs 1.20 million, provided to the community.
22	Ghani Goth-2 (Gadap UC-5 goth project)	Comprising of 27 lanes and 437 houses plan/estimate completed for a 3 secondary sewers 1,769 rft. costing Rs. 0.77 million and 27 internal lines 8,928 rft. costing Rs. 2.011 million, provided to the community.
23	Arz Mohammad	Comprising of 33 lanes and 212 houses plan estimate completed.

	Goth UC-6 Gadap Town	For a main line 1,395 rft, costing Rs.0.780 million one secondary sewer 450 rft, costing Rs. 0.220 and 23 internal lines 4,800 rft, costing Rs.0.537 million, provided to the community.
24	Khair Muhammad Goth UC-6 Gadap	Comprising of 17 lanes and 73 houses plan estimate completed for a main line 650 rft. costing 0.446 million 3 secondary sewer 1,175 rft. costing Rs. 0.667 million and 17 internal lines 3,635 rft. costing Rs. 1.145 million, provided to the community.
25	Abbasi Goth UC-6 Gadap town	Comprising of 26 lanes and 404 houses plan/estimate completed for a secondary line 2,275 rft. costing Rs. 1.396 million and 24 internal 1,0495 rft. costing Rs. 2.71 million, provided to the community.

For more goths in Gadap town, contacts and community mobilization are in progress. Requests for support for mapping are received from more Goths.

Water supply in the goths/abadis: 1) Earlier on community request estimates were provided for laying the water lines in 6 lanes of Mohd Khan colony Baldia town. By June'12 community completed the works, 146 houses invested Rs. 3,65,000 (2,500/house). 2-3) The existing water supply system (bulk and distribution) for 6 goths in UC-8 Gadap town with more than 12,000 houses have been documented. Two projects Ghazi and nearby goths/abadis is being monitored for its bulk and secondary distribution system, jointly with the community and ii) a self help distribution system in operation in Khairabad since 2009, has been documented. 4) Earlier community activists of 10 goths of UC-4 Gadap town (comprising of 573 lanes and 9,137 houses) requested technical support for replacement of an old water main. Preparation of plan/est. completed and provided. 5) On the request of community activists of 4 goths in UC-5 Gadap (Ghani, Jatyal, Abdullah Gabool goth and Junjar) and one abadi (Umer Colony UC-5 Jamshed town) for technical support, preparation of plans for water mains completed and provided to the community who is lobbying with MPA for implementation. Govt. agency PHED has received funds for the works and has agreed to implement the community proposals. In Abdullah Gabol goth PHED started work on the construction of under ground tanks two completed, other is in progress. In addition, work on 3,300 rft. and 1520 rft. 10" dia main is in progress. Out of total 4800 rft., 2,450 rft. completed. Internal line 5,383 rft. work started by PHED. 3,000 rft. work completed this period. 6) Saifal Khan Mary goth (UC-6 Gadap town) plan estimate completed earlier, consists of a main line and three secondary lines 17,920 rft. costing Rs. 6.907 million. Last period govt. has approved 4" dia, 10,000 rft. pipe, work has begun. 1000 rft. 6" dia and 3,700 rft. 4" dia work is in progress. There is request from Hindu goth UC-5 Gadap for planning. 7) Ahsan Raza Burfat goth (UC-3 Gadap town) plan estimated completed earlier, work is in progress. 8) Adam goth (UC-5 Gadap town) plan/estimate completed last period. It consists of two main lines, 900 rft., costing Rs. 0.176 million. 9) Pir Buksh goth (UC-5 Gadap town plan, estimate completed last period. Consisting of two secondary sewers, 900 rft., costing Rs. 0.176. 10) Dildar Umrani goth (UC-4 Gadap town plan, estimates completed last period. It consists of one main line 1,750 rft. costing Rs. 0.055 million. (last period work completed 1800 rft). 11) Tharoo Mangal goth PHED has started work on construction of one under ground tank completed last period. In addition work on 2,500 rft. water line is on going OPP-RTI team is supervising the work. 11) Abdul Ghani goth-2 (UC-4) Gadap town plan estimated completed one main and 2 secondary lines 2,840 rft. costing Rs. 0.596 million. 12) Arz Mohammad Goth (UC-6) Gadap Town plan estimate completed one main line 1,400 rft and one secondary line 450 rft costing Rs.0.261. 13) Khair Muhammad Goth (UC-6) Gadap town plan/estimate completed; 2 secondary line 880 rft. costing Rs. 0.210 million.

1.7.5 Development of Natural *Nalas*/Drainage Channels into box drains/trunks- Working with KMC – Citywide application

Natural *nalas*/drainage channels in Karachi serve as the main disposal, for sewage and rain water for all of Karachi. To safeguard the existing sewerage system important developments are a) desilting, securing the width and development of these as box drains, and b) laying interceptor drains along side the main nadi's (Lyari nadi, its branches the Orangi/Gujjar *nalas* and Malir nadi).

OPP-RTI has since 1998 been involved, with the KMC, SKAA and KWSB, in the development of *nalas*/drains. **Along many of the *nalas* and drains there are low income settlements, OPP-RTI designs avoid displacements.** In June 2006 on Governor's directive first the KWSB and since August 2007 the Karachi Metropolitan Corporation has taken charge of O&M of all the *nalas*/drains of Karachi. A separate department has been setup for this work. OPP-RTI maps are being used.

All over the city *nalas*/drains are being desilted, repaired, reconstructed/constructed, and covered, or trunk sewers are being laid alongside these, **(more than 55% of all completed – latest survey)** in line with the concept promoted by OPP-RTI since 1996 for Orangi and since 1998 for Karachi. Some works are regularly documented for understanding, though the rest is too large a scale to document. Detail report on *nala*/box drain developments serving the goths has been explained in section 1.7.4. Report on development of the Orangi *nalas* is in section 4.4. **Explained below are some more developments in implementation since June'2004.**

In June'2004 the Executive District Officer (EDO) and the engineers of the Works and Services deptt. (W&S) of the KMC, requested OPP-RTI's support for the development of natural *nalas* as box drains and the upgradation of existing drains in Karachi. **OPP-RTI together with the city engineers was made a member of the focal group formed for the work.** On request maps and documentation of main *nalas*/drains are regularly provided to the group. Thru mutual consultations *nalas*/drains were identified, OPP-RTI support continues thru providing the surveyed maps, plans, designs, estimations and on site monitoring. Followup contacts/meetings continued this period too, with the engineers of DMC/KMC for development of the Lasi, Ramzan and Yar Muhammad goths box drains serving many goths and abadis in Gadap town. Earlier budgets for these projects were included in the govt's annual development plan (2012-13). Work was tendered by DMC West. Work on site is continuing.

In June 2007, based on OPP-RTI designs, an umbrella PC-I for the development of 9 main *nalas* into box drains, costing Rs. 900 million was approved by the provincial govt. as proposed by the CDGK/KMC. The *nalas* are of total length 1,28,096 rft. and serve parts of 8 towns, the development benefits 93,781 houses. **Work was earlier completed on five box drains (11-A, Baldia, Qalandria-I, Khairabad-I and KAN).** On site supervision and community mobilization for monitoring undertaken by OPP-RTI. remaining works **on two, (Mominabad 15,558 rft. and Baloch 14,585 rft.) serving parts of Orangi, and Site towns, will be under taken through ADP.** Location of Chakara goth *nala* was shifted during its implementation. For the Sungal *nala* (8,660 rft.) in Gulshan town, with 800 rft. drain completed, work on site remains stopped since Jan'12. Six more *nala* development (box drain) projects (2 earlier) as designed by OPP-RTI have been approved since the umbrella PC-I. On one Soldier Bazar, work is completed on Mianwali work continues, on others, the process of contracting is underway.

Documentation of the existing systems on maps has been consistently advocated by OPP-RTI in meetings, discussions, forums and presentations. Since 2003 the KMC and KWSB has been focusing on this. Maps documenting the drainage channels and sewerage systems of 16 out of the 18 towns of Karachi, were earlier digitized, these are now available on our website, together with the maps documenting the overall City's drainage. On site updating of sewerage drainage system in towns of Karachi initiated total of 16 towns completed.

1.7.6 Documentation of Natural *Nalas*/Drainage Channels

OPP-RTI mapping and documentation, strengthening advocacy, has influenced the KWSB and KMC's development plans. 114 natural *nalas*/drainage channels (mains and branches), of total length 1,076,803 rft., located all over Karachi have been surveyed and mapped. Plan, design and estimates for the development of total 65 *nalas* were provided to KMC/SKAA and PHED/P&D. Most of these branch *nalas* and drains dispose into 2 main *nadis*, Lyari and Malir which then dispose into the sea. Accepting the importance of these drainage channels, plans for box trunks along the main *nadis* were earlier prepared and being implemented by KWSB (as the S-III plan).

A map of Karachi in the scale of 1: 10,000 documenting the *nalas/drains* surveyed was prepared, and is displayed at the OPP-RTI “Perween Rahman hall”. From the map a clear picture emerges of Karachi’s sewage/drainage disposal channels. The map is regularly updated. Together with the map (ref. goths become abadis/urban), three more maps are regularly disseminated 1) showing city wide location of *nalas/drains* 2) the S-III plan for Karachi and 3) illustration of the blockage of the city’s outfalls and the related land grab by the govt. and other official agencies.

1.7.7 Working with KWSB – City’s Sewerage, Drainage, the S-III plan and the Water Supply plan for the city. Also is the working with P&D Deptt. and PHED Sindh.

OPP-RTI proposal for a Sewage Disposal System for Karachi published as a monograph in 1998, presented an alternative to the KWSB’s Greater Karachi Sewerage Plan. A study in 2001 for the governor’s task force on municipal services strengthened this. The alternative has been: i) the existing functional system and present use of *nalas/drainage* channels for sewage and rain water disposal be accepted and the *nalas/drains* be developed as box trunks or interceptors be laid alongside ii) Sewage treatment plants to be built where the *nalas/drains* join the sea iii) Roles and responsibilities to be decentralised, so that external development becomes the responsibility of the government and internal development the responsibility of communities or cooperative societies.

It has been observed that the KMC and the KWSB are increasingly implementing the alternative proposal, as explained in 1.7.4 – 5 and 4.4.

1. KWSB’s S-III plan: OPP-RTI’s low cost proposal for sewage disposal for Karachi is now the Karachi Water and Sewerage Boards (KWSB) S-III plan for the city, KWSB has revised the PC-I, the cost is expected to rise from initial 8 billion to 25 billion. Project include setting up of 5 STPs with a treatment capacity of 550 mgd. Last period construction of TP-IV, Korangi and invitation of tenders for upgrading of TP-I and TP-III in progress. OPP-RTI’s role on the one hand is to liaise with the KWSB and their consultants to ensure proper implementation and on the other to facilitate communities.

KWSB’s local consultants have designed the project components as 1) the Lyari river basin and its 5 projects and 2) the Malir river basin and its 5 projects. Work on site on Lyari river basin has started and expected to be completed by the end of 2014, is now delayed.

OPP-RTI’s work together with the KMC, assists in coordinating the development of the branch *nalas/drains* and their linkup to the above.

2. Water supply plan for Karachi: Focus is to facilitate poor people’s access to water. With the research report published and disseminated in 2008 there was a breakthrough, government’s action was influenced w.r.t the daily siphoning of 41% of water supply and the tanker operators. **With media promotion and advocacy, govt. acted on two of the main solutions** i.e 1) one agency the KWSB was made responsible for all water supply – thru pipes and water tankers and 2) focus was on improving the bulk supply. Due to the dynamics of the action the siphoning/theft of water (of 272 mgd, 41% of the daily supply) and the unofficial distribution, thru water tankers, was reduced. 2009-10 onwards there were improvements (by about 50-65%) in water supply especially in the three peripheral water deficit towns i.e. Orangi, Site and Baldia. **However since May’12 there has been an increase, as observed, in the unofficial water supply thru tankers.**

The documentation of developments has strengthened OPP-RTI’s advocacy that – need is for mega management rather than mega projects.

3. Working with P&D Deptt. and PHED Sindh: P&D Deptt. Sindh and PHED continues to support the external sewerage/drainage works in the goths/abadis of Karachi, indirect advocacy thru activists continues.

1.7.8 Citizen's Water and Sanitation Group for the City of Karachi and other Cooperative Actions.

Thru the process of joint advocacy several city NGOs, CBOs, activists and citizens earlier came together as a group. Partner NGO, URC was used as the base.

The citizens strongly advocated use of local resources as opposed to foreign loans and building on what exists rather than superficial mega projects. OPP-RTI alternative for sewage/drainage disposal for the city was presented as a case study demonstrating the use of local resources and the lack of dependence on foreign loans.

In sewage disposal, drainage, water supply, solid waste disposal and transport the alternative plans, are advocated. In forums, media reports/programs, meetings with govt. and citizens the alternatives are presented and discussed. **Govt.'s plans and works for sewage disposal/drainage and water supply have been influenced.** Some details on sewage disposal, drainage and the water supply plan have been explained. Information about others is available with URC.

The group members support other on going cooperative actions. Earlier support was provided to avoid evictions of the poor from their settlements, as off and on there are some instances of threat by the govt. People resisted this, in most cases now they have succeeded in safeguarding their settlements. Need has been observed to further strengthen peoples resistance and negotiating power. The OPP-RTI's Secure Housing Support Program, as detailed in section 3, addresses this and other evolving needs. URC support continues to the railway communities. The communities won a case on right of freedom of information from the Ombudsman. The Ombudsman accepted public right to access information on vital government projects. On the order of Ombudsman, the government provided the relevant information to the communities.

1.7.9 Site, Baldia, Gadap, Kemari, Lyari and Shah Faisal Town

Site town: Construction of the Mianwali drain (Site Town) 6,880 rft., 3,330 rft. is complete. (Orangi Town) 4,376 rft., 3,900 rft. is complete remaining work 4,026 rft.. Work on another the Mominabad drain phase-I-6,652 rft. started in May'11, 1,600 rft. drain has been completed and work stopped. Phase-II – 8,906 rft. is located in Orangi town. Due to political pressure the KMC has changed the design into a wasteful unnecessarily wide RCC drain. Since then as needed OPP-RTI was just documenting the work, as for now this too is not possible due to security situation.

Baldia town: Development of the Baldia nala 3,650 rft. designed by OPP-RTI as a box drain was earlier completed. This serves as sewage /drainage disposal for 4,000 houses in Baldia. Its disposal is the segment in Kemari town renamed as the Shershah-I nala, effort continues for its development.

Gadap town: Work on external/internal sanitation in UC-4,5 & 8 Gadap town has already been detailed in section 1.7.4 related to the work in the goths of Karachi.

Kemari town: Effort continues for the development of the Shershah-I nala measuring 4,365 rft.. The nala serves as sewage/drainage disposal for 10,000 houses. In addition it is the disposal segment of the Baldia box drain. Plan/design were earlier provided to the KMC engineers.

Lyari Town: For the Kalri and Pitchard nalas (9,505 rft. and 15,000 rft. respectively) plan, design and estimates costing Rs. 192.53 million were earlier provided to the KMC and the Planning and Development Deptt. of the Sindh govt. Work is approved, KMC has started tendering process.

Shah Faisal Town: By Dec'13 KMC started construction of Golden town nala with 3,000 rft. box drain completed. By June'14 KMC started construction of Moria goth nala, 550 rft. box drain completed.

1.8 Statistics

1.8.1 Sewerage Construction Outside Orangi – Aug'2016

Sr. No.	Area	Location	Internal Sanitation			External Sanitation		
			Lanes	Rft	Latrines	Cost (Rs. Million)	Mains. Rft	Cost (Rs. Million)
1-2	Chanesar Goth/Qasimabad	Karachi	6	810	48	0.026	340	0.073
3-4	Islamia Colony, Mujahid col	Karachi	125	30705	1568	1.880	11485	2.285
5-6	Bhitai Colony/M.M. Alam Col	Karachi	5	924	33	0.292	2725	0.956
7-8	Jamali Colony/Madina Cly	Karachi	89	13405	899	1.078	3536	0.900
9-10	Burmee Sharif, Baloch Colony	Karachi	229	30493	3405	4.086	6310	1.328
11-12	Awami Colony, Zia col	Karachi	135	30338	2046	3.54}	9344	1.863
13	Arkanabad	Karachi	-	-	-	-	1699	0.325
14	Umer Colony 1 & 2	Karachi	43	4670	467	0.559	3718	0.358
15-16	Nishterabad, Shah Rasool col	Karachi	21	2814	210	0.252	2094	0.480
17	Zia-ul-Haq Colony	Karachi	111	13764	999	1.198	2960	0.665
18-19	Bawani Chali/Khando Goth	Karachi	50	5820	400	0.479	3520	1.030
20-22	Kausar Niazi Col. Blk-F and H	Karachi	118	18232	1498	1.796	2606	0.638
23-24	Rehmatia Colony, Wahid col	Karachi	106	14130	902	1.082	5070	1.217
25-26	Anjuman-E-Ittehad, Umer Baloch	Karachi	12	2210	157	0.174	1170	0.298
27-28	Junejo Town, Umer colony	Karachi	142	28989	2060	2.062	8590	2.038
29	Khuda Ki Basti	Karachi	128	62951	2504	6.285	16294	7.635
30-31	Generalabad/Farooq-e-Azam	Karachi	23	2650	158	0.908	3423	1.380
32-33	M. Ali Colony/Abbasi Nagar	Karachi	76	8902	670	0.613	3828	1.157
34-35	Mecca Colony, SherPao Colony	Karachi	132	25767	2183	1.618	1790	0.570
36	Ashraf Al Mustafa Col.	Karachi	57	9120	684	0.820	1060	0.315
37-38	Essa Nagri, Noor Afshan Colony	Karachi	8	1260	90	0.990	1850	3.0
39	Azam Basti	Karachi	52	8630	431	1.250	18110	7.162
40-41	Muhammad Khan/Ittehad Colony	Karachi	5	1466	73	0.334	-	-
42-43	Dost Mohd. Junjar/Haider goth	Karachi	73	16968	1219	5.601	13420	4.947
44-45	Dildar Umrani, Ghazi goth	Karachi	12	2664	218	0.946	* 6190	14.84
46	Ghani goth	Karachi	11	3308	201	0.891	* 12,550	41.33
47	Junjar goth	Karachi	14	3683	281	1.466	440	0.178
48	Jatyal goth	Karachi	9	2518	172	1.007	2090	3.4
49	Wazir Brohi Goth.	Karachi	20	3860	315	1.375	400	0.131
50	Chutta Gabol goth	Karachi	18	6134	450	2.463	1390	0.582
51	Bashir Shoulder	Karachi	2	700	40	0.246	* 1740	0.621
52	Gulshan-e-Rehmat Baloch	Karachi	5	1450	98	0.253	750	0.423
53	Allah Rakhio goth	Karachi	8	2800	160	0.965	500	0.288
54	Abdullah Gabol goth	Karachi	-	-	-	-	3940	7.266
55	Pir Bux	Karachi	-	-	-	-	1500	0.940
56	Saifal Khan Mary goth	Karachi	-	-	-	-	1000	0.494
57	Haji Zakria goth	Karachi	-	-	-	-	3800	1.915
58	Manzoor Colony	Karachi	153	46935	2908	2.170	■ 11670	93.300
59	Welfare Colony	Karachi	106	23320	1272	1.520	■ 1970	3.040
60	Rajput Colony	Karachi	49	11660	539	0.647	■ 2125	1.043
61-62	Muslimabad/Pirabad	Karachi	130	42186	860	1.032	■ 3484	14.0
63	Mianwali & others	Karachi	610	12020	7000	14.165	■* 5091	22.60
64	Baldia	Karachi	-	-	-	-	■ 4365	17.96
65	Khawaja Ajmair Nagari	Karachi	-	-	-	-	■* 8950	26.0
66	Qalandria	Karachi	-	-	-	-	■ 10200	25.30
67	Khairabad	Karachi	-	-	-	-	■* 9350	83.55
68	Sungal	Karachi	-	-	-	-	■* 800	1.45
69	Soldier	Karachi	-	-	-	-	■ 20000	143.5

Sr. No.	Area	Location	Lanes	Internal Sanitation			External Sanitation	
				Rft	Latrines	Cost (Rs. Million)	Mains. Rft	Cost (Rs. Million)
70	Mominabad	Karachi	-	-	-	-	■*1600	4.74
71	Baloch colony nala	Karachi	-	-	-	-	■*3000	10.2
72	Ramzan /Yara mohd goth	Karachi	-	-	-	-	18824	32.00
73	Lasi goth nala	Karachi	-	-	-	-	6600	11.22
74-77	K. Lakhat, Qadri, Yasrab, Farooq	Lahore	94	22409	1160	2.577	180	N.A
78-80	Khan Colony/Haji Park, Kala stn.	Lahore	20	3972	171	0.670	-	-
81-83	Peerzada Cly/Dars B.M/Tanki-56	Lahore	2	201	16	0.039	930	0.066
84-86	P. grnd/Khuda Ki Basti/M.Khandu	Lahore	49	7047	432	1.527	5307	●1.529
87-88	Shadewal Lahore/Color Cly/Jarar	Lahore	15	3355	188	0.711	310	0.031
89-90	UC-60 (ASB)/Badar Col	Lahore	81	18266	2287	6.898	22410	130.00
91-92	Choudhary park, Faisal Colony	Lahore	4	540	31	0.118	-	-
93-95	Boawala, Mirza pura, Ahmed town	Lahore	7	1687	106	0.480	5352	40.0
96	Poong Shareef	Narawal	25	2816	132	0.298	-	-
97	Bagdad Colony	Chishtian	-	-	-	-	1760	2.112
98	College wali abadi	Minchanabad	1	160	6	0.025	1700	2.040
99-101	Torwal, More Khudo, Mandi	Faiz Nankana	3	950	53	0.232	-	-
102-103	Jhuggian Bagr/Umer Froq Col	Kasur	3	466	31	0.096	-	-
104-105	Chungi 12 Block-15, Ghowiswala	Sargodha	4	690	47	0.137	-	-
106-109	T. wala, Hfz'd, Fsal cly, Rjpotan	Naushehra	35	4687	337	1.458	-	-
110-112	Shahid, Waqas, Francicabad	Naushehra	34	5345	324	1.510	-	-
113-115	Rehman, Faiz, Basti edhan wali	Naushehra	4	750	50	0.210	-	-
116-117	Moh. Insaryan/Ad walia, Tug Kalan	Naushehra	5	610	23	0.167	-	-
118-120	Ibrahim, Ihtisham Cly, Jhanghir town	Naushehra	3	400	26	0.139	-	-
121-122	Mahboob Cot Mill/Muhajir cam.	Sargodha	4	1279	92	0.227	-	-
123-124	Salman, Islam Pura	Sargodha	16	4150	265	0.684	-	-
125	Rahman Pura Ataiq street	Shiekhpura	2	538	35	0.090	-	-
126-128	National, Dhuddi wala, Hasanpura	Faisalabad	104	20119	1066	2.798	524	0.131
129-130	Al-Najaf Colony, Rajada Town	Faisalabad	12	4616	225	0.626	-	-
131-132	Nimat Colony, Jalvi Market	Faisalabad	36	8381	413	1.126	-	-
133-135	Fctry Area, Press Mkt, Saeed bd.	Faisalabad	3	935	46	0.145	-	-
136-137	Abdullah Town, K.T.M. chowk	Faisalabad	4	1878	54	0.211	-	-
138-139	Darusalam Colony, Jalvi Trunk	Faisalabad	7	1750	140	0.321	1820	0.277
140-141	Mujahid Town, Iqbal Nagar	Faisalabad	13	2818	119	0.373	-	-
142-144	Nisar, satellite, Madina cly	Faisalabad	63	19697	906	2.633	-	-
145-146	Dogar Basti, Kehkshan Colony	Faisalabad	7	1672	76	0.265	-	-
147-148	Sohailabad, Hamet pura	Faisalabad	11	2275	137	0.373	-	-
149-150	W. Town/Masoodabad	Faisalabad	9	1770	127	0.350	-	-
151-152	Sandhu Pura, Aslam Gunj	Faisalabad	10	2895	162	0.462	-	-
153-155	Yasinabad, M. Ali park, Bilal cly	Faisalabad	28	6645	350	1.009	-	-
156-158	Rukanabad, Chak-117, Sheerin bd	Faisalabad	3	1630	260	0.588	2400	0.215
159-160	Zulfiqar Colony, Yakta Market	Faisalabad	10	1540	135	0.312	-	-
161-162	Nadir Town/Al Masoorm Town	Faisalabad	5	1275	74	0.199	-	-
163-164	Murad Colony, Rashid Nagar	Faisalabad	17	6350	331	1.035	3855	0.851
165-167	Elahiabad, Yousuf, Green town	Faisalabad	57	20755	1061	3.410	8335	2.380
168-169	Hamyan Town, Usman Town	Faisalabad	11	1797	73	1.160	-	-
170-171	Partab Nagar/Harchaon pura	Faisalabad	5	2010	80	0.340	-	-
172-173	Muzaffar, Saeed cly	Faisalabad	22	6750	272	1.043	-	-
174-176	Bhahi wala, Millat Rd, Nawabanwla	Faisalabad	4	970	50	0.183	6230	2.16
177-178	Faisal Town, Rasool park	Faisalabad	11	3410	175	0.461	-	-
179-180	Ganda Singh wala, Muslim town	Faisalabad	14	7313	259	1.025	-	-
181-182	Lakar Mandi/Shabnam Street	Faisalabad	5	1400	89	0.246	-	-
183	Haseeb Shaheed Col.	Faisalabad	4	2445	92	0.302	-	-
184-185	Dastagir cly, Nimat Cly-2	Faisalabad	9	3230	125	0.460	-	-
186-187	Mansoorabad, 5 Marla Colony	Faisalabad	15	5925	280	0.973	-	-

Sr. No.	Area	Location	Lanes	Internal Sanitation			External Sanitation	
				Rft	Latrines	Cost (Rs. Million)	Mains. Rft	Cost (Rs. Million)
188-189	Farooqabad, Imdad Town	Faisalabad	11	6626	376	1.155	-	-
190-191	Yousfabad/Saif abad	Faisalabad	10	4200	208	0.932	-	-
192-193	Park, Sana Park	Faisalabad	7	4834	278	0.808	-	-
194-195	Munirabad, Azamabad	Faisalabad	19	17139	1077	2.890	-	-
196-197	Ali Town/AI-Masoom Town	Faisalabad	9	2284	115	0.366	-	-
198-199	Jamilabad,Bismillah park	Faisalabad	6	2034	91	0.333	-	-
200-201	Ahmed Colony, Hajiabad	Faisalabad	5	1350	56	0.204	-	-
202-204	Nawaz prk, Ilyas, Bismilah prk	Faisalabad	5	1296	41	0.157	-	-
205-206	Kahkashan No. 2, Hasan Town	Faisalabad	11	2580	131	0.469	-	-
207-208	Rahmat Town/Nazimabad	Faisalabad	11	3149	166	0.591	-	-
209-211	Iqbal Town, Ajaz Town,Shams	Faisalabad	14	3351	191	0.644	-	-
212-213	Siddique Nagar, G.M.A. Block-D	Faisalabad	15	3432	194	0.642	-	-
214-216	Muncpl,M'abad, Chamra (J'wala)	Faisalabad	9	2408	134	0.405	-	-
217-218	Shams,Ismail Chundri (J'wala)	Faisalabad	7	1533	85	0.258	-	-
219-220	Razabad, Anwarabad (J'wala)	Faisalabad	8	2490	124	0.414	-	-
221	American Barracks	Hyderabad	-	-	-	-	5297	1.200
222-223	American Qtr, Gujrati para	Hyderabad	-	-	-	-	+12145	1.702
224	Gole Tikri	Sukkur	14	1650	155	0.199	9800	1.700
225-227	Tench Bhatta, Valley-III, Koral	Rawalpindi	5	1630	67	0.487	-	-
228-229	Dhok Matkal, Gija road	Rawalpindi	64	11130	669	1.721	595	0.049
230-231	Habib Colony, Bismillahabad	Rawalpindi	20	4138	213	0.773	-	-
232-234	Hazara Col, Meharabad, Fatima Col	Rawalpindi	4	505	20	0.062	-	-
235	Farooq-e-Azam Colony	Rawalpindi	3	861	42	0.123	-	-
236-237	Dhoke Kala Khan, Nawab Col	Rawalpindi	8	1549	72	0.180	-	-
238-239	Model Colony, Bilal Colony	Rawalpindi	18	3874	208	0.918	300	0.026
240-241	Fouji Colony, Dadat colony	Rawalpindi	29	6614	332	1.505	-	-
242-243	Qayyumabad, Ghorri Town	Rawalpindi	2	912	53	0.147	-	-
244-245	Rahmatatabad, Shamsabad	Rawalpindi	12	4068	182	0.682	-	-
246-247	DK. Sayyedana/Ghaziabad	Rawalpindi	15	4036	195	0.879	300	0.054
248-249	Dhoke Anwar & Hassu	Rawalpindi	6	1674	57	0.231	750	2.200
250	New Gulzar Qaid Colony	Rawalpindi	17	4925	129	0.751	-	-
251-252	Wagon Colony, Faisal Colony	Rawalpindi	12	3042	138	0.501	-	-
253-254	Khanna KoK, Faiz vally	Rawalpindi	19	4632	303	0.992	1930	1.465
255	Pathan cly	Rawalpindi	2	424	21	0.114	-	-
256	Rasoolabad	Muzaffargarh	-	-	-	-	277	0.015
257-260	Shagai, Aman Kt, Banr, Chalyr	Swat	74	9049	459	0.984	4156	0.348
261	Lodhran	Lodhran	175	28857	1469	3.338	12835	2.938
262-265	Thakker,Faiz,Lahori,Madina cly	Lodhran	21	3470	222	0.732	7005	1.656
266-267	Duniapur, Kehror pucca	Lodhran	34	6120	251	0.674	496	0.022
268-270	Ibrahimwala,Dehnote,Mughalpur	Lodhran	25	3669	117	0.439	-	-
271-274	Aziz,Usman,Gulap, Rasoolpur	Lodhran	28	3181	137	0.523	-	-
275-277	Basti Peerwala, Jewanwala, Gangaywala	Lodhran	10	739	37	0.167	400	0.371
278-280	Aaqil, Nalaywala, Danwarn town	Lodhran	3	330	13	0.073	495	0.486
281- 285	Maqsood,B col,100 M, Sadat, Main bazar	Lodhran	23	2150	132	0.522	2299	2.040
286-287	Ranjhy wala, Chak NO.97	Lodhran	5	566	38	0.176	-	-
288-292	Kory wala, Sardar Sha town, Stadium road, Quaidabad, Basti Ghair	Lodhran	4	322	16	0.070	746	0.606
293-295	Pathan,Liquat,Rehman,CIA	Lodhran	6	552	25	0.129	-	-
296-299	Kumhra,Nokwala,B-col,yonswala	Lodhran	3	356	20	0.089	320	0.158
300-303	Zafar,Mas kotn,bast stat,IslampurKehror Paca	Lodhran	4	665	21	0.070	1800	3.40
304-306	Rao cly,Chak 359,343/WB	Dunyapur	20	2503	119	0.449	-	-
307-308	Pakistan Colony, Akhtarabad	Khanpur	3	491	36	0.076	11204	5.802
309	Khanpur	Khanpur	63	13694	531	2.191	-	-
310-311	Model Town, Jinnah town	Khanpur	17	3757	120	0.352	-	-
312-313	Toufail Colony, Railway Road	Khanpur	5	871	34	0.092	-	-

Sr. No.	Area	Location	Lanes	Internal Sanitation			External Sanitation	
				Rft	Latrines	Cost (Rs. Million)	Mains. Rft	Cost (Rs. Million)
314-316	Rahimabad, Qauid millat, Majeed	Khanpur	3	420	13	0.039	-	-
317-318	Mohalla ShairMohd, Doaba col	Khanpur	5	1101	25	0.068	-	-
319-320	Riaz Town, Rehman Colony	Khanpur	25	5316	208	0.553	-	-
321-322	T.H.Q Hospital, TMA. Labana	Khanpur	3	423	14	0.035	-	-
323-324	Muslim col, Mohammad pura	Khanpur	15	2845	130	0.325	-	-
325-327	Islamabad, Dinpur Colony, Sattite'C' 5	Khanpur	7	1423	59	0.154	-	-
328-329	Bank Colony/Manzoor Cly	Khanpur	7	1322	39	0.117	-	-
330-331	Shamsabad, Shahi Road	Khanpur	2	160	6	0.013	-	-
332-333	Gharibabad, Madina Town	Khanpur	7	1029	33	0.098	-	-
334-335	Mohallah Zahrin, Bhati Colony	Khanpur	2	425	12	0.045	-	-
336-337	Jadda Town/Asad town	Khanpur	4	1498	74	0.206	-	-
338-359	Tba, UC2, Dlawar, Islami, Gbad, abbasi, Maqbool, Green, Samlan, Jafar, Abbas C. Bindra, Chk No.12BC, Samma, Usman, Yousuf, Madina, G Hashma, Nawaz, Satlajh, Hassan, Chak 12 more, Dera Bakha	Bahawalpur	282	40178	1475	6.293	4402	26.880
360-368	Basti Modpur, Sultan Arain, Behli, Yasrab, Mohajir, Jamani wal, Khurhar wala, Chak 32, 23	Khairpur Tamewali	50	4756	306	1.042	EM-STU 27000	21.645
369-371	G Iqbal cly, Chak 40M, Ghememar	Jalah Araian	18	3137	103	0.417	EM-STU 6240	78.164
372-400	Hafiz, Jinn, Has. Md cly, Sadar Bazar, W No.9, 8, 4, 10, 11, 14, Chk 89, 93, 90, 61, 47, 138, 139, 117, 68, 57, 14, 67, 40, 42, 146/DB, Hasan, Ada Baghdadwala, Usman Col	Yazman	103	14136	443	2.242	* 4883	20.624
401-405	Karmpur, Hafizabad, Gharibabad & Sheikh pura	Vehari	24	3674	153	0.709	-	-
406	Uch	Uch	18	3266	159	0.514	9516	N.A
407-408	Mohallah Khawajgan, Bukhari col	Uch	49	7403	347	1.382	550	0.034
409-410	Nawazabad, Hussaini chk	Uch	37	5894	263	0.982	2100	1.00
411-413	Gilani, Shams coly, Umer town	Uch	118	18870	980	3.532	EM-STU *13060	12.963
414-415	Shams Bagh/Shams Mehal Road	Uch	16	2030	119	0.335	-	-
416-417	Kachery Road Ape/Akbar Town	Uch	4	655	31	0.079	-	-
418-420	UC-74/Marium St, Shamimabad	Uch	20	2861	151	0.540	-	-
421-422	Sukhail, Jugpura Sutan Jahanian	Uch	8	1278	45	0.153	2651	2.094
423-425	UC-75, UC Gillani, Daud pota	Uch	47	6934	406	1.353	14690	8.20
426-428	Rao Cly, Akram St, Green town	Uch	7	1141	59	0.168	-	-
429-430	Samee Town/Main Bazar Area	Uch	13	4807	246	0.677	4170	2.803
431-433	A. East, Khair Daha, Dera Masti	Uch	63	12358	479	2.150	* 5232	3.930
434-436	Haji Ilyas, Dilshad, A. Ghafoor	Uch	3	467	18	0.054	-	-
437-438	H. Khan Mohd, Khairpur Tha rod	Uch	3	650	21	0.063	-	-
439-441	Ferozwala, Ali Town, Hasnain strt. Rur	Uch	3	525	13	0.084	930	0.116
442-444	Kot Khaleefa, Ghaurian, Sweetra	Uch	2	530	14	0.100	EM-STU *420	3.033
445	Liaquatpur	R. yar Khan	1	92	6	0.027	-	-
446-450	Gulnar, Islam, Data, Taqi, Hafiz	Multan	15	2145	134	0.359	4214	5.126
451-454	Ghaus bd, Amir, Bukhari, Shams	Multan	-	-	-	-	3630	0.869
455-458	Jhandeer, Ghousia, Rajput cly, Shujabad	Multan	33	4651	218	0.964	200	0.132
459-461	Taragar road, Sagiya, Peerwala	Multan	6	568	33	0.142	-	-
462-464	Madina, Hospital wali, Fareedpur	Multan	11	1102	60	0.269	1325	1.372
465	Mohallah Sadat	Ali Pur	13	1631	77	0.449	1000	0.987
466-469	Momin, Irsal, Saman, Ghazipura	Gujranwala	76	18444	1323	3.724	367	0.033
470-472	Raja, Jahangir, Barkat cly	Gujranwala	24	6896	487	1.38	240	0.026
473-474	Kamboh Colony, Sarfaraz Colony	Gujranwala	3	567	43	0.197	-	-
475-476	Shahzada S, Saddiq Col.	Gujranwala	3	1120	133	0.264	740	0.147
477-478	Shaheenabad, Jahangir coly	Gujranwala	73	19230	1517	5.235	5300	7.445
479-480	Mirza Colony, Shahrukh cly	Gujranwala	12	2359	152	0.226	-	-
481-482	Shahrukh Colony/ Camp#4	Gujranwala	10	1823	131	0.307	-	-
483-485	Habib, Jinna Rd., Fazal pura	Gujranwala	19	5265	469	1.742	2800	0.659
486-487	Tariqabad, Jagna town	Gujranwala	32	7565	500	0.464	315	0.038

Sr. No.	Area	Location	Lanes	Internal Sanitation			External Sanitation	
				Rft	Latrines	Cost (Rs. Million)	Mains. Rft	Cost (Rs. Million)
488-490	Khalid cly, Asghar Rd, Kot Habib	Gujranwala	3	675	45	0.104	-	-
491-492	Mozam Colony/Taran wala bazar	Gujranwala	6	1255	102	1.354	-	-
493-495	Islam Pura, Gulshan, Azhar Town	Gujranwala	4	870	56	0.158	-	-
496-497	Mubarik Shah, Mian Sansi	Gujranwala	5	1307	90	0.214	1680	4.326
498-500	Shamsabad, Rata Rd, Shafi cly	Gujranwala	5	825	56	0.216	-	-
501-502	Madina Colony, Shahzad Town	Gujranwala	7	1653	129	0.353	-	-
503-505	Saleem, Abubakar, Peoples Kamoki	Gujranwala	5	1085	80	0.200	1258	0.278
506-507	Sui Gas Road/Qabrstan road	Gujranwala	3	510	35	0.090	745	0.115
508-509	Rasheed Colony, Faqirpura	Gujranwala	4	655	44	0.104	-	-
510-511	Lohianwala/Akhtar councilor wali	Gujranwala	5	1455	85	0.267	-	-
512-515	D.Type, Rahman, Papular, Javaid	Gujranwala	8	2100	144	0.432	-	-
516-517	Jamia qasmia, Gulzar, But cly	Gujranwala	13	3588	245	0.807	-	-
518-519	Ehtisham colony, Atta M. road	Gujranwala	5	1320	97	0.225	460	0.083
520-522	Sehar Park/Bagdad town, Meh chah chuannwala	Gujranwala	3	1225	95	0.374	700	0.080
523-524	Mehar Suleman, Qabrstan rd	Gujranwala	-	-	30	-	845	0.118
525-526	Faisal, Khyali, Fazal Aziz col	Gujranwala	7	1679	109	0.423	2000	0.593
527-528	Sanitry Market, Noor bava	Gujranwala	2	700	77	0.157	-	-
529-530	Soyanwala Khooh, Sarafanwala	Gujranwala	2	500	36	0.081	-	-
531-533	Gali Mdrs, Macheen, Noorwali	Gujranwala	3	1000	58	0.148	-	-
534-535	Qabrstan Road, Abad Meharwazir	Gujranwala	4	1075	78	0.226	1100	0.962
536-537	Noshara Road, Sharif Pura	Gujranwala	6	1630	182	0.606	1845	0.305
538-540	Rasoolpura, Popular, Aarsal cly	Gujranwala	7	1800	127	0.370	800	0.612
541-543	Qasim Town/Ansrian/others	Gujranwala	8	2250	139	0.423	700	0.08
544-545	Dhaki Sundr Singh/Nore Mustafa	Gujranwala	9	2700	286	1.188	1850	0.454
546-548	Islami Pk/Academy Wali, Majeed	Gujranwala	-	-	-	-	4537	7.559
549-551	Academy Wali, No.11, Addawaliabadi	Gujranwala	4	860	46	0.194	-	-
552-554	Hafizabad, Aziz cly, Haji Pir bux	Gujranwala	13	3475	275	1.467	850	0.489
555-557	Kamoki, Malik, Subhani park	Gujranwala	4	1205	145	0.558	-	-
558-559	Farooq, Ghulam Hussain cly	Gujranwala	2	850	81	0.436	-	-
560	Bara Gala Mohallah	Gujranwala	1	350	33	0.194	-	-
561-562	Moh. Bagbanpur, High school cly	Gujranwala	2	420	44	0.240	-	-
563-564	Chah Qazi Khoan/Kotla Moghla	Jampur	1	310	11	0.068	1 EM-STU	0.022
565-567	Moh Alipur, B Mochi, Talai wala	Jampur	19	3998	240	1.293	2 EM-STU	0.055
568-570	Faisal, peoples cly, M Shahwala	Jampur	3	560	26	0.137	EM-STU *1800	2.221
571-574	Bismillah, Rehman, Farooq, Kot Tahir	Jampur	28	3635	208	1.090	524	0.093
575-577	Sharoo, sharqi, B. Meran	Jampur	11	3070	264	0.772	-	-
578-581	New/Dahri/Kamil Shah/muhamdi	Sanghar	32	4701	448	1.542	1655	1.132
582-584	Near P.S, Shahi bazaar, Umer'bd	Sanghar	2	164	7	0.017	900	0.108
585-587	Noor Shah/Nawabshah/TNT Rd	Sanghar	3	462	29	0.071	900	1.3
588	Near Govt. Boys Primary School	Sanghar	4	380	36	0.079	-	-
589-592	Ward No. 4,5,6,7	Sanghar	-	-	-	-	3650	5.84
593	Village Khadro	Aman ullah	2	280	19	0.056	4750	7.924
594	Sanjrani Muhallah	Barhoon	1	115	9	0.028	-	-
595	Shuther Mohallah	Mithi	1	120	5	0.017	-	-
596-597	Mohla Jutt/Jamat Ali	Sinjhor	2	441	20	0.062	-	-
598-601	Ward 6,3,4 and 2/Sirajuddin Moh	Sinjhor	10	1278	62	0.257	450	0.11
602-604	Ward NO.5,1, Zaffar Town	Sinjhor	7	1290	52	0.243	350	0.224
605	Khairabad	Karachi	-	-	-	-	1 EM-STU	*0.035
Total			6278	1174027	75597	192.572	530132	806.53

* Work in progress

+ Work stopped

• Incl treatment plant

■ These are nalas developed as box drains, they serve a larger area then the abadi/goth listed. For example the Manzoor Colony nala (Sr. no. 58) is the disposal for the entire Jamshed Town (Pop. 1 million). Likewise is the case with Welfare, Rajput, Mianwali, Baldia, KAN, Qalandria, K'bad, Sungal, Mominabad and Baloch, Ramzan/Yar Muhammad drains, Lasi goth (Sr. No. 59 to 73).

1.8.2 Sewerage Construction in villages – Aug'16

Total Villages	No. / Location	Internal Sanitation				External Sanitation				
		Lanes	Length	Latrine	Cost (Rs.)	Main rft	Cost (Rs.)	Disp -osal	Cost Rs.	
	LPP								*Land	•Work
1-93	8 / Multan, Lodhran, Duniyapur, Kehror Pca, Khan pur, Bahawalpur, Rahim Yar Khan, Vehari	1718	270,119	12,860	33,523,930	226,858	30,577,041	94	4,537,000	37,602,905

* In addition to the investment in internal sanitation community has contributed the land, so the peoples investment is 51%. The sanitary latrines cost has been taken as minimum Rs. 1400/house.

• Incl treatment plant

Total Villages	No. / Location	Internal Sanitation				External Sanitation				
		Lanes	Length	Latrine	Cost (Rs.)	Main rft	Cost (Rs.)	Disp -osal	Cost Rs.	
									Land	Work
	SWDSO (Sanghar)									
94-95	Village Masu Kario, Mua Chora	5	695	27	169100	410 (EM-STU)	1,14,050	-	-	-
96	Village Amanullah	4	1180	23	182540	2000 (EM-STU)	18,00,000	-	-	-
97	Village Jamaluddin Dahri	-	-	-	-	(EM-STU)	35,000	-	-	-
98	Village Taj Mohammad Dahri	3	550	20	106180	(EM-STU)	30,000	-	-	-
99	Village Lemon Khan Talpur	6	845	21	184399	(EM-STU) 270	83,200	-	-	-
100	Village Ghulam Kerio	1	270	5	40240	-	-	-	-	-
101	Ward No. 7 Khadro	-	-	-	-	1250	1,00,000	-	-	-
	RAWDO (Sinhoro)									
102	Katchi goth	1	100	4	14590	-	-	-	-	-
103-104	Chanser Faqir, Nabi Bux Moh	2	260	7	37000	-	-	-	-	-
105-106	Rasool Bux, Jamal Faqir	15	1710	133	739420	(EM-STU)	0.027	-	-	-
107-108	Dewan Wali Ram, Dallil khan	6	725	35	228483	(EM-STU)	21,090	-	-	-
	AHMMT (Larkana)									
109	Khairo Dero	-	-	200	-	2 EM-STU 1420 rft.	748000	-	-	-
	BDO (Battagram)									
110-111	Pagora, Ughaz Bundy	-	-	100	-	2 EM-STU	48,000	-	-	-
	SRDO (Shahdadpur)									
112	M Sharif Setho village	-	-	-	-	2 EM-STU	70,000	-	-	-
	ZHO (Shahdadpur)									
113	Lutaf Ali Wagan	4	570	35	0.163	(EM-STU)	32,000	-	-	-
114	Gul Hassan Shar	1	180	8	0.048	-	-	-	-	-
	SRDO (Samaro)									
115-116	Moti Ram Malhi, Mehmood Shahani	3	360	44	149081	2 EM-STU	65,000	-	-	-
117-118	Khamiso Solangi, Kolhi Cly	1	100	20	64000	3 EM-STU 600 rft.	2,27,000	-	-	-
119-120	Malah Kolhi, Long Khaskeli	4	550	50	22000	2 EM-STU	70,000	-	-	-
121-122	Rahooabad, Bahadro Bheel	1	200	20	84000	2 EM-STU	230000	-	-	-
	WWO (Sakrand)									
123	Village Majeed Kerio, Wapda Colony	13	1885	59	383525	580	64,000	-	-	-
124-126	Village Maiyan, A Wahid Somro, Satpuri	7	1070	40	262850	2 EM-STU	55,000	-	-	-
127	Village Mullah Sand	2	320	84	-	780 (EM-STU)	2,46,388	-	-	-
128	Village Khoker	2	270	14	247400	-	-	-	-	-
129	Arregation colony	2	320	9	83800	-	-	-	-	-
	CDSP (Uch Sharif)									
130	Basti Gopang	2	196	16	64800	2 EM-STU	18,000	-	-	-
131	Chami goth	1	478	6	45200	1 EM-STU	12,800	-	-	-
	GDO (Karor Lal Eason)									
132-133	Basti Qadir, Ward No.7	-	-	-	-	2 EM-STU	50,000	-	-	-
	Total	1813	282863	13832	37218881	234218	35709776	94	4,537,000	37,602,905

2. RESEARCH AND TRAINING

2.1 Training

- a) Training at OPP-RTI is based on the programs. Some detail courses are regularly held. Orientation training spans 2-3 days, includes the OPP institutions concept, programmes, methodology and the organizational setup. Detail training of a week to 10 days relates to the specific OPP-RTI program and is undertaken on request as well as on the partners needs. 21 days training on sketching/mapping/google image saving/documentation, a weeks training on level survey, another on planning/designing/estimation for the low cost sanitation program (town, settlement, lane and village level planning), are the regular on going courses. On site training and guidance to partner NGOs continues for the social and technical skills, (including research and documentation) the organisational setup of the support organization and its related accounting/reporting system. Teacher training has been initiated in OPP-RTI, undertaken by the education team on various topics (improving teaching skills). Housing mapping and planning training is also provided to the youths.
- b) Vaccinators and traditional birth attendant's training is undertaken by OPP-KHASDA. It has now extended to the goths of Karachi.

2.2 Youth/Activists Training and Support Program and the Youth Technical Network

With respect to increased community efforts in low income settlements, need was felt to buildup capacity of the youths/activists to support community initiatives. OPP-RTI has found youths/activists willing to give time to work for the development of these settlements. The extent of community efforts is evident from the documentation of abadis and goths as detailed in section 2.10.1. The training program is named as **“Perween Rahman Fellowship Program”**.

A training program on sanitation, mapping and housing for the youths/activists is on going. Presently 20 youths are part of the program. The purpose of training is to enable the youths/activists to take up work in these fields independently. However, OPP-RTI's advisory support continues. The students are matric/intermediate in qualification and are identified through contacts with team members, trainee students or through local *tanzeems*. Trainees get a stipend during the course and a certificate is awarded on completion.

In sanitation, training is imparted in mapping, documentation, levelling, designing, estimation, construction work, on site supervision, and community mobilisation. For the activists the focus is community mobilisation. Youths concentrate on surveying, documentation, levelling, designing and estimation. Training on mapping, google image saving and digitization and documentation is provided to all the youths participating in the program, detail technical and social mobilization training and regular guidance on organisational setup and financial discipline is provided to activists and youths in the replication projects. Training on AutoCAD (2D) has also been imparted to the mapping team of OPP-RTI to facilitate mapping.

8 students are undertaking survey and documentation of *abadis*/goths in Karachi (outside Orangi). Mapping of total 513 abadis/goths is complete, 5 completed this period. Documentation of sanitation, water supply, clinics, schools and thallas in total 506 abadis/goths has been completed (5 this period). Statistical data of 453 completed, of 5 completed this period. Redocumentation of one UC of Orangi town maps completed. Documentation / mapping of total 108 natural *nalas* / drainage channels in Karachi, measuring 1,016,290 rft., is complete. Many nalas and drains all over Karachi are being desilted, developed and covered by the govt. as advocated, OPP-RTI maps are also being used. Mapping continues with the help of satellite images downloaded from google earth. The Goths

mapped are being updated thru satellite images.

All maps available with OPP-RTI are regularly digitized. Maps of Karachi's sewerage, drainage and some on water supply now also of the goths that have become abadis (urban) are available on our website. Satellite images regularly down loaded from Google Earth are very valuable, these are facilitating the surveys.

The training in housing comprises of survey, documentation, planning, estimation, construction/on site supervision, and extension. The training imparted by OPP-RTI, is now also being conducted by the Technical Training Resource Centre (TTRC) and recently by Tameer Technical Centre (TTC). These organizations have been set up by trained youths of the community. Details of the work are explained in section 1.7.3 and 5.4.a.

14 youths, five in housing and two in survey and documentation are under training on fellowships, while seven students are in the OPP-RTI team for on the job training.

There are increasing requests from youths to join the program. The program has been organised so effective training can be provided to more youths. The senior youths are managing the program, training and guiding the juniors, with OPP-RTI team providing the backup support. A refreshing development has been the interest shown by young girls to join the program. Four at OPP-RTI, four at partner TTRC and one at TTC are involved in the work.

The training is a process, whereby students get involved in the on going work of survey, mapping and documentation of services in *abadis/goths*. This gives them an opportunity to understand and respect the dynamics of peoples work. Students who continue for 6-8 months and show the potential for learning are then provided a fellowship (i.e instead of a daily stipend, a fixed monthly fellowship is provided). **Most have used this stipend to finance their education.**

Effort is made to develop avenues for their continued association in the development work. With fellowships for seniors, who then progress to forming support units/organizations (like the TTRC, TTC, PMC and UTC as detailed in 1.7.3), or become part of the OPP-RTI team or get hired by NGOs/survey firms, others join in the work of mapping/documentation of *abadis/goths* and the survey of natural *nalas*/drainage channels. The students seeing the potential for a future career in their work, are associated on a more consistent basis.

The documentation by the students of water supply and sanitation systems in *abadis/goths* and of *nalas*/drains in Karachi provides the base for expansion of the sanitation programme, the clarity in the partners replication work and in the influencing of govt's policies and action plans. The information has also provided the basis for the work with the KMC/KWSB/PHED/SKAA and the P&D deptt Sindh while also illustrating the drainage related land scam and for understanding the city's water supply situation and for strengthening the secure housing support program. In the process of survey activists are identified in each settlement, this contact has facilitated a wider coming together of community activists. The Secure Housing Support Program explained in section 3 is also strengthened by these contacts. In addition the lecture series/forums as explained in section 2.5 has provided an opportunity for the same.

Youth Technical Network: The twelfth meeting of the Youth Technical Network was held in Soan Valley. 17 youths working at 10 partner organisations participated. The youths representing organizations presented and discussed their work, which provided them the opportunity to understand and learn from seniors. New partners are in regular contact for improving mapping, documentation, reporting and other technical skills. Since Sept'12 an addition has been the training of youths of the partner organizations involved in the flood rehabilitation work. For 42 youths of 20 partner organisations training was completed at OPP-RTI. All new prospective partners are now

advised to get training at their nearest senior partner, as has happened in the case of PWF who got training from NSF, like wise training of BWO and SDV from BDO/Kunhar is planned at Kunhar.

2.3 Youth initiatives and Savings groups:

- 1) Youths of the housing and survey mapping unit have setup the Technical Training Resource Centre (TTRC) details are in section 1.7.3.
- 2) Youths have been trained on mapping and planning of housing units. This initiative has evolved into a technical support unit, the Tameer Technical Centre (TTC). Details are in section 3.5.
- 3) Youths of the mapping team have setup the “Peoples Mapping Centre” some details have been explained in section 1.7.3.
- 4) A youth group has evolved as support organization linked to the Housing Savings and Loan program. The “Ujala Technical Centre” (UTC) based at TTRC in Orangi.

Youth Saving Groups: 41 youths are now the members of the youth program, in Karachi, have organized their saving group. Rs.100/month is being saved, since around April '09. Total Rs. 1,75,310 has been saved. There is motivation to use the savings as credit for undertaking training courses, since Mar'11 loans to 27 members have been provided.

2.4 CBO Activists Forums and Case studies

The forums and lectures aim to facilitate an understanding of the city, so as to strengthen the process of citizen's role in city development. This period one lecture was organized by partner URC at its office, the topic was; 'Green line bus rapid transit in Karachi'.

Many CBOs and NGOs in abadis/goths of Karachi and outside are in regular contact. Case studies of many are available and new ones are prepared as and when an interesting group comes in contact.

2.5 Training Groups -since 1992

Organisation	Jun'16 – Aug'16		Cumulative – Aug'16	
	Groups	Members	Groups	Members
UN+Aid agencies+IFI's	-	-	88	555
Government agencies	-	-	143	1,997
NGOs/CBOs	8	8	814	4,146
Academic Institutions	-	-	64	852
Total	8	8	1109	7550

This quarter:

- Members of 6 partner organisations of Sindh (SWDSO – Sanghar, WWO – Sakrand and RAWDO – Sinjhor), ZHO – Shahdadpur, SRDO – Samaro, BDO-Battagram, GDO – DG Khan, SWO - Jurgar, training/guidance on mapping, documentation, organisation of work and reporting.

2.6 Visitors – since 1992

Organisation	Jun'16 – Aug'16		Cumulative – Aug'2016	
	Groups	Members	Groups	Members
UN+Aid agencies+ IFI's	-	-	179	490
Donors	1	6	241	523
Government/Elected members	-	-	464	1359
Academic institutions	1	3	277	1478
Media/Journalist (Foreign)	-	-	69	119
Media/Journalist (National)	-	-	117	204
NGOs/CBOs	-	-	854	2372
Others	-	-	88	284
Total	2	9	2,289	6,829

Some of them this quarter:

- Several groups of NGOs/CBOs from Karachi and outside discussed work and support
- Organisers of several savings groups as well as school entrepreneurs for discussion and advise
- Students from NED University being briefed on program.
- Members from Water Aid discuss the low cost sanitation program.

2.7 Research Studies/Monographs

- 2.7.1 Security of tenure in Goths: Listing of goths and master map – preparing evidence to facilitate govt. policies for tenure security. Of 1,183 goths (that have become urban abadis - located in the immediate periphery of Karachi), master map and list is complete (continuously being updated). Map in Urdu and English were printed. The total now is 1,183 goths (that have become urban). **A spatial graphic map showing location of low income settlements and Goths has been completed.** Govt. since mid 2010 to early 2013 started providing tenure rights to the residents of goths, to 50 percent residents it was provided and then stopped.
- 2.7.2 Activists in the community: Profiles of lane managers, involved in low cost sanitation is being compiled. Profiles of active women involved in the CHSLP is also being compiled.
- 2.7.3 A health survey is being conducted in Orangi Town, to analyse the health situation regarding water borne diseases.

2.8 Surveys / Documentation

2.8.1 SKAA/KMC Abadis and BOR Goths.

Surveys documenting the existing sewage disposal / water supply systems, schools and clinics have been undertaken of the SKAA/KMC *abadis* and of the BOR goths in Karachi .**The related publications, Volume I, II and III, each including 100 surveyed maps, have been published. Work on volume-IV and V is in progress.**

Survey Results: Aug'16

No. of abadis/goths surveyed	—	*453
Total number of lanes	—	24,475
Total number of houses	—	253,034

Internal Development	Lanes	Houses	Investment (Rs)
Peoples Effort:			
Sewerage:			
- Lane + Latrine + House Connection	7,196	74,961	92,069,300
- Latrine + House Connection (Govt.) Sewers		104,576	74,476,231
Total		179,537	165,545,531
Water Lines:			
- Lanes + House Connection	6193	63,664	92,766,210
- House connection (Govt. lines)		47,390	42,215,232
Total		111,054	134,981,442
Grand Total			301,526,973 (301.526 million)
Government Works:			
- Sewerage (Lane only)	8,222	103,495	292,294,015
- Water lines (Lane only)	4,919	65,252	90,984,285
Total			383,278,300 (383.278 million)

* In Karachi according to SKAA report there are total 564 *abadis*, 95 of them are in Orangi. This survey is of *abadis* outside Orangi i.e. out of 469 *abadis*, survey is complete of 453 (95.52 %). Data on Orangi settlements is available in separate tabulation in section 4.3. When combined, information is available of 97.16% abadies. The survey also includes 173 goths.

External development			
Investment on external development by government and people has been tabulated for 453 <i>abadis/goths</i> , statistics is given below:			
	Number	Length	Investment (in Rs)
Peoples Effort:			
- Secondary sewer	92	74,112	1,585,986
- Secondary water lines	106	92,292	1,289,342
Total			2,875,328 (2.875 million)
Government Work:			
- Secondary sewer	806	556,763	98,126,853
- Main sewer	329	353,013	176,923,595
- Main drain	193	278,190	300,453,843
Total			575,504,291 (575.504 million)
- Secondary water lines	713	596,057	38,474,912
- Main water line	595	733,684	152,748,385
Total			191,223,297 (191.233 million)
Grand Total			769,602,916 (769.602 million)

Lease charges recovered by SKAA, by Jun'2004 has been Rs 206,530 million (information received from SKAA.) (Contact has been reestablished to update this figure.)

Lease charges recovered by KMC by Jun'99, from total 60,695 units in *abadis* has been Rs. 325.064 million (information received from KMC.)

Survey shows that:

- a) People have the resources (social, managerial and technical) and the willingness to finance, manage and maintain internal sanitation i.e sanitary latrines, lane sewers and secondary sewers. Out of 24,475 lanes, 7,196 (29.40%) lane sewers have been laid on self help, with people investing Rs. 168.131 million in sanitary latrines, lanes and small secondary sewers.

Govt. too has laid lane sewers in total 8,222 lanes (33.593%) investing Rs. 292.294 million. The work has been five times more expensive than people's work.

- b) The requirement for laying the lane sewers is the presence of some form of disposal. Presently it is in the form of main drains and sewers.
- c) The problem in sanitation is the provision of main disposal i.e external sanitation comprising large secondary sewers, trunk mains/development of natural *nalas* and treatment plants (TPs). Govt. in places, has undertaken construction of large secondary sewers/drains investing more than Rs. 575.504 million, these mostly dispose in the cities main natural *nalas*/drains just like in the rest of the city areas. Development of these natural *nalas*/drains into trunk mains and provision of TPs where the *nalas* join the sea, are like the large

secondary sewers, an important task of the govt. Since 2004, govt. has started undertaking this work as detailed in section 1.7.5.

- d) People also have the resources and the willingness to finance, manage and maintain internal water supply lines i.e lane and secondary pipelines. In 6,193 (25.30%) lanes, water lines exist laid on self help, with people investing total Rs. 134.981 million in lanes, secondary water lines and house connections. In some places several water lines exist in a lane, some houses have combined and taken connection from a main line, while in other cases individual houses have taken direct connections. Govt. too has laid lane water lines in total 4,919 (20.09%) lanes investing Rs. 90.984 million.
- e) The requirement for laying the water lines is the presence of water supply in the water mains. Govt. has undertaken laying of large secondary and main lines investing more than Rs. 191.233 million.
- f) The problem in water supply, as the case with other areas in Karachi, is the provision of water. In cases water lines exist but there is no water (this is related to the issue of bulk supply). In places people have made borings in their homes and in mosques. Water is mostly brackish, so used for toilets and other cleaning purposes. For drinking and cooking, in cases sweet water is purchased thru private tankers costing an average of Rs. 600-1000/house/month. People are willing to pay the cost of water to govt. because presently they are paying more for unofficial connections/supply. Provision of main supply is important and has to be the govt's responsibility. People can take care of the distribution. Since the past 3-4 years provision of water has improved. For the goths located in the periphery of Karachi, rainwater storage dams/wiers are needed. Provision of these in some areas has been initiated by the govt.
- g) In many cases it has been observed that govt. has just laid the main water line, main sewer/main drain in the settlements while the lane and small secondary, water lines and sewers have been laid by the people. Due to lack of finances govt. (i.e. KMC/KWSB/PHED) has practised the component sharing approach, i.e. govt. provides the main sewer, main water line and water, people take care of the neighbourhood network.
- h) People organize, collect finances, hire a local mason to do the work. But in sewerage the skills of level survey, maintenance of slopes and knowledge of construction techniques particularly manhole construction is required. In water supply knowledge of the required diameter of pipe and proper jointing technique is needed. There is therefore need to build technical skills within the community to support local initiatives.
- i) Due to the introduction of one window operation by SKAA and KMC, people have paid total Rs. 531.594 million as lease charges to SKAA (June 2004) and KMC (June 1999). The development charge recovered within lease charge (i.e. 33 per cent) can be used for the provision of external sanitation and water supply lines. This has already been proven in SKAA's development projects. Since 2009 SKAA has restarted the provision of land title after a gap of 7 years.
- j) People are playing their role. There is need for government to work in partnership with people, complimenting their work so as to effectively utilize available resources. This will enable government to upgrade low income settlements with local resources. The partnership is evident on the ground and has slowly started being accepted as a policy, (refer the National Sanitation Policy). Effective implementation is needed.

Survey of Schools and Clinics:

In 453 *abadis/goths*, survey of schools and clinics is complete. Survey statistics shows the extent of people's efforts i.e:

	Government -----	Private -----	Total -----
Schools	168	413	581
Clinics	22	871	893

Survey shows that:

- i) Private health clinics are every where providing health services to the people. These are mostly clinics set up by health practitioners. Common ailments are treated; vaccination and family planning services are increasingly in demand. Most clinics however face problems in accessing vaccines and family planning supplies. Govt. clinics in settlements are negligible only 22 (2.463%) as compared to 871 (97.53%) private clinics.
- ii) The schools set up by the people far exceed those by govt. The people are aware of the importance of education, so set up their own schools. 413 schools (71.08%) are private and 168 (28.91%) are govt. These are formal schools (both primary and secondary levels) set up mostly by area individuals. A fee is charged averaging Rs. 40-400/ student/month and teachers are paid salaries. The fee increases in higher classes. The govt. schools are free but people prefer to pay fees and send their children to private schools, where they say education is better.

2.8.2 Profiles of community members, NGOs/CBOs and case studies.

Profile of 2 educational entrepreneurs and case study of 3 sanitation program compiled last period.

2.8.3 Instruction sheets/Leaflets/Pamphlets/maps

Leaflets being regularly disseminated are i) Map documenting the natural nalas/drainage channels of Karachi and the S-III project for sewage/drainage disposal ii) Leaflets, instructions for monitoring the ongoing construction of each of the nalas/drains iii) Karachi rains, drainage and outfalls: Issues and solutions. iv) Lessons learnt while working with community, government, NGOs/CBOs and some axioms. v) The Sindh Govt's. Katchi Abadis /Goths ordinance - extending the cutoff date for land title. vi) Use of the google maps website, downloading and saving images. vii) Design and operation of small EM-Sewage Treatment Units. viii) Leaflet introducing the Housing, Saving and Loan Program.

2.9 Publications/prints:

completed:

- Profile of Womens activists in women saving groups
- Case studies of lane manager/activists in sanitation – Sept 2015.
- A study of closed schools supported by OPP-RTI since 1993 in UC-6 & 8, Orangi town.
- Map and documentation of Goths in Karachi – Volume – V
- Sanitation Manual English and Urdu.

In progress:

- Map and documentation of abadis in Karachi – Volume –IV
- Profile of active women involved in the HSLP

2.10 Compilation of profiles/case studies (1983-2004)

- List of Profiles/case studies - outside Orangi is being complied.
- List of profiles/case studies - in Orangi is complete and is in the process of publication.

2.11 Statistics

	Cum. May'16	Jun'16 – Aug'16	Cum. Aug'16
Reports	146	1	147
Monographs	110	-	110
News Bulletin	27	-	27
Case Studies	864	-	864
Profiles	932	-	932
Video Cassettes	42	-	42
Slide Sheets	143	-	143
Photo Albums	*1105	-	*1105
Manuals	15	-	15

* Also digital camera images and other scanned photos are regularly added.

3. THE SECURE HOUSING SUPPORT PROGRAM – SUPPORT TO GOTHs IN KARACHI.

There are 2,173 old traditional settlements (as per OPP-RTI's list) mostly in the 3 peripheral towns of Karachi - Gadap, Bin Qasim and Kemari. These rural settlements, housing the poor are known as "Goths". With land value becoming high in Karachi, the city's development is fast expanding into the peripheral towns so, the goths were earlier threatened with eviction, by the City Govt. Around March 2006 attempts at this were stopped, due to peoples resistance and media coverage which brought about the intervention of the Chief Minister (CM). In more cases people have successfully resisted evictions. Around June'10 again evictions by the Govt. began in these peripheral areas. However it was soon stopped by the current CM, a committee was formed to stop such evictions in the future. Since then evictions have stopped. Effort has been to strengthen the people's resistance and move towards secure housing, development of infrastructure/facilities and land tenure. **Master mapping shows total 1,183 goths in the periphery of Karachi that have become 'abadis'** i.e regular urban settlements mostly housing the poor. More goths are being identified. In around 2,173 goths (OPP-RTI list) close to 1,00,000 plots are being supplied annually, thru unofficial sub divisions of about 3,000 acres of land, with 30% housed within a year and the rest resold a number of times. Most land settlement is around the 1,183 goths located in the immediate periphery of the city (research conducted by OPP-RTI during 2012-2013). **In addition to the poor, middle classes are also accessing land thru the unofficial system of supply, with small/medium industries and factories being setup and infrastructure too being made available.** A list of 1,131 goths was finalized in 2012 by checking various govt. lists showing goths approved and under process for land tenure. Government agencies the Board of Revenue (BOR) and the Sindh Katchi Abadi Authority (SKAA) are providing the individual land tenure, as per their areas of jurisdiction. OPP-RTI's research advocacy and maps have facilitated the process.

Program:

Peoples efforts to safeguard their settlements, are being supported with 1) **Advocacy for facilitating land security (NOC/notification) and eventually the land title:** Info on their status, acquiring related govt. documents/maps, mobilization, regular contacts, meetings with govt. officials (BOR and SKAA) and with the related political party members and informing media reports. 2) **Bringing together the community activists as the Secure Housing Support Group to strengthen their work and advocacy.** For 1 & 2, the process has slowed down since 2013 after the demise of the director. Re-establishing of contacts with govt. departments has been initiated. Contact with new goth activists being developed and strengthened with the old ones, due to a stabilized security situation. 3) **Mapping** 4) **Infrastructure (sewerage/drainage) development** and improvements. For 3 and 4 initially settlements in the nearby town of Gadap UC-4,5 & 8 were being focused. Due to increasing requests, goths in Kemari, Bin Qasim, Malir, Gulshan towns and other UC's of Gadap also being supported. Planning, onsite guidance/supervision and advocacy continues with the govt. for provision of bulk infrastructure in the 1,183 goths that have become 'abadis. This is considered as one of the tools for facilitating security of land tenure. 5) **Technical support for housing, savings and loan program** 6) **Research on how goths have become abadis** started with research on Zobu goth in Gadap town, has now been abandoned after the incident of Feb 2013. This program flourished mainly due to the many contacts all over the city, thru partner CBOs/community activists (some of whom have worked on the sanitation program in their settlements and are involved in housing the poor).

Details:

1) Wide ranging advocacy (including signature campaign and meetings with Ministers, political/community activists, govt. officials and media) for extending the cut off date for provision of land tenure in Sindh was successful. Details were earlier reported. **Effort is ongoing, as needed, for facilitating the implementation of the govt. orders (passed by the provincial assembly)**

that extends the cut off date from March 1985 to June 1997 for Katchi Abadis. Another goth specific ordinance extends the cut off date for provision of the 99 year lease to Dec'31st 2000.

Related govt. documents i.e SKAA's master list, BOR's list of sanctioned goths, list of goths of various govt. deptts. and the maps (also of the govt's. Census Organization) were acquired. A master list of 2,173 goths was earlier finalized, by checking various govt./other lists and onsite. The master map with location of the goths was prepared and is being regularly updated. The verification and location mapping of 1,183 goths was completed and digitized. This is the evidence used to advocate policy change and action on land tenure. This map was disseminated among govt. officials, goth elders/activists, NGOs and the media, which supported the process of land tenure.

OPP-RTI is directly supporting 222 goths with mapping and guidance as needed. The completed maps are also of use for the house/plot divisions needed for individual tenure..

The previous provincial govt. formed a committee of govt. officials and political party members to expedite the process of land tenure in the goths. Contacts/meetings with the Secretary and members of the committee were established but due to the security situation stopped. List of 1,131 goths was finalized in 2012 showing Goths approved and under process for land tenure.

2) Many CBO's and community activists related to poor people's housing and those that organize and have succeeded in resisting evictions, of many settlements and goths were in regular contact. Goth elder's and activists of UC-3,4,5 and 8 Gadap town spearheaded the process of tenure security also infrastructure development. Maps prepared by OPP-RTI and facilitation in link up with govt. officials, has strengthened the efforts of the activists. **Acceptance of the OPP-RTI maps by BOR/SKAA assisted the process.** Close documentation, support of the process in these 4 UC's is ongoing, but slowed down since 2013.

3 & 4) Mapping and Infrastructure Development and also the Upgrading of Schools: Goth elders and activists of Gulshan, Bin Qasim, Malir, Gadap, Baldia and Kemari regularly identified the location of many goths on google satellite images. In addition the Census of Pakistan maps (with dehs – the revenue boundaries and location of goths) earlier acquired also speeded up the process of identification of goths on satellite images. As requested OPP-RTI maps are also shared with the Provincial Population Census Organization.

Requested by goth elders/community activists detail on site mapping of goths is in progress. **Total 259 goths have been mapped of 235 documentation of infrastructure is complete.** This period mapping of 5 goths and documentation of infrastructure of 5 goths was completed. Of more, surveys are in progress.

Report on the development of sewerage/drainage infrastructure has been detailed in section 1.7.4. Government's positive response to the OPP-RTI plans/designs for bulk infrastructure (external development) and peoples self help internal development have speeded up the expansion of work in the goths. **In 185 goths and 45 nearby abadis work on total 42 projects of sewage/drainage disposals are in various stages of implementation/design. Support for provision of water supply has also been initiated.**

Upgrading of Schools: OPP-RTI's education program has extended support to 69 schools - some details are in the education program in section 6), for more work is in progress. Survey documentation of *235 goths shows that *273 schools exist. Of these *180 schools were set up by community entrepreneurs.

5) Technical support for Housing Saving and Loan Program: As a first step focus was Zobu and Khairabad/ Khair Md. goths, located in the periphery of Orangi (within the boundary of Gadap town). Here in July 2007, 79 houses and boundary walls around 256 open plots were demolished by the

local govt.. People resisted, organized to get back their land. However in January 2008 they faced a 2nd eviction followed by several periods of serious threats. Finally by late 2009 people reached an agreement with the local govt. that houses where people are residing will not be touched. Rebuilding of houses began. Mapping documentation, of Oct'11, shows 256 houses settled and boundary walls around 634 open plots. OPP-RTI has since the beginning supported the people's process with maps and the relevant contacts.

Technical guidance for house planning and documentation of the housing developments in Zobu, Khairabad also nearby settlements was provided. 1) Two youths of the goth have been trained on house plans, cost estimation and extension of advice to the community. The youths have evolved into a technical support unit 'the Tameer Technical Center' (TTC). The focus of technical guidance, as a 1st step, is proper ventilation and foundation design. Houses have begun accepting the advice for ventilation and recently the structural design is being focused. 2) One more youth group the Ujala Technical Centre based at TTRC Orangi is under training for support to the housing program linked to their area saving groups. A small core fund support is being provided.

Housing Savings and Loan: By Nov'10 observing the need, loans of Rs. 25,000/house for the construction of a room was initiated, now increased upto Rs. 40,000. The program was initiated in Zobu Gothic/Khairabad in Nov 2010 to provide interest free loans to residents for constructing their houses, demolished by the govt. (a few even four times). In 2011, a need of the housing program was observed in the women saving groups of Orangi as well for the physical improvement of the houses with reference to ventilation, repairs and construction of under ground water tank. In 2014 the program extended in the women saving groups of Gadap Town and now in Kemari Town. **Total 241 (corrected) houses have been supported** (7 this period).

Recovery of loans, being managed by the saving groups, is on time except for a few discrepancies. Upto Aug'16 Rs. 5,651,000 has been provided as housing loans to 241 houses, Rs. 4,091,686 has been recovered.

For strengthening the process of loans and cooperative action, savings is considered as an important tool so is linked to the Housing Saving and Loan program. Groups needing housing support are mobilized for saving; the saving group is then responsible for selection and recovery, guided by OPP-RTI and the active members of the groups.

CHSLP with respect to recovery from the saving groups:

Sr. No.	Name/No. of Women Saving Group	Area of the group	Units Supported	Amount Disbursed	Amount Recovered
	T.T.R.C				
1	1	Ghaziabad	4	68,000	60,750
2	1-A	Ghaziabad	16	4,32,000	2,80,100
3	2	Ghaziabad	20	3,50,000	3,15,780
4	3-A	Gulshan-e-Zia	6	93,000	93,000
5	4	Thorani Goth	4	1,28,000	72,200
6	5	Ghaziabad	14	2,85,000	2,32,700
7	6	Ghaziabad	8	2,06,000	1,53,000
8	7	Gulshan-e-Zia	3	70,000	30,000
9	14	Sector No.14 Orangi	4	72,000	29,800
10	15	Shah Waliullah Nagar	4	96,000	88,000
11	13	Gabool Colony	1	20,000	15,000
12	9	Gulshan-e-Zia	4	1,44,000	85,600
13	16	Ghaziabad	1	40,000	6,600
14	17	Thorani Goth	1	40,000	2200
	OPP-RTI				
15	Bilal Society	Ghaziabad	17	3,13,000	2,65,000
16	Anchal	Mansoor Nagar	15	3,03,000	2,30,000
17	Zoha	L-Block	23	5,54,000	4,27,700
18	Bagh-e-Zehra	Hussainabad/Haryana colony	3	88,000	5,88,000
19	Imaan	Nishan-e-Haider	10	3,05,000	88,150
20	Youth	Qasba Mor	5	1,59,000	45,200
21	Ahbab Bachat Committee	Qasba Mor	4	112,000	61,000
22	Group – 1	Zobu Goth	27	6,25,000	4,65,500
23	Group – 2	Zobu Goth	11	2,75,000	1,47,000
24	Roshni	Allah Rakhio goth	9	2,65,000	61,606
25	Rose	Meer Khan Goth	6	1,60,000	79,000
26	Life	Umer Brohi Goth	15	3,04,000	1,22,400
27	Janab	Saifal Mary	4	96,000	24,800
28	Raees goth	Kiamari town	2	48,000	21,600
	Grand Total		241	56,51,000	40,91,686

6) Research report titled “Goths become Abadis – needing urban development” was being compiled but has stopped since the demise of Perween Rahman. The 1st section and the case study on Muhammad Khan colony is complete. The second case study on the area around the new Sabzi Mandi – Super Highway has been stopped. Maps of all the four case studies are complete. Work on the remaining part of the research has been suspended due to security reasons.

7) Research for the development of Goths/abadis – Low income abadis in Karachi map (through graphics) has been updated with the information of Karachi Water Supply System for further research on the supply of water in Goths/Abadis in Karachi. The map of Karachi Water Supply System has been digitized and integrated on the “**Low income abadis in Karachi**” map.

4. LOW COST SANITATION PROGRAMME

4.1 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 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.

4.2 Statistics of Work in Orangi

4.2.1 Survey of Orangi – 1989, 1997 and 2003 – regularly updated since

	Total
Mohallas	113
Lanes	7,893
Houses	1,12,562

4.2.2 Cumulative Construction: 1981 to Aug'16

	Cumm. May'16	Jun'16 to Aug'16	Cumm. Aug'16	Percentage
Total All Orangi:				
- Sewer Line	7,293	16	7,309	92.60
- Length (Rft.)	1,848,142	4,280	18,52,422	
- Secondary Sewer	609	2	611	
- Length (Rft.)	287,307	1,150	288,457	
- S. Latrine	109,205	271	109,476	97.25

▪ 5,868 by people; 1,441 by Govt.

+ 287 by people; 324 by Govt.

4.2.3 People's Investment in Low Cost Sanitation (Cost in Rs)

	Cumulative May'16	Jun'16 to Aug'16	Cumulative Aug'16	Average
Total All Orangi:				
- Sewer Line	38,392,334	788,400	39,180,734	6,677
- Secondary Sewer	3,591,793	45,000	3,636,793	1,267
- S. Latrine	91,017,680	813,000	91,830,680	839
Total	133,001,807	1,646,400	134,648,207	

4.2.4 Govts trunk sewer/box drain

KMC/ADB Trunk Sewer: Construction and Investment - June 1994 to Dec'1997 *

Trunk Sewer	116
Length (Rft.)	120,983
Cost (Rs.)	36,294,900

* A three year project. These trunk sewers serve as disposal for 2,152 lanes in total 16 *mohallas*

KMC trunk sewers/box drains: Dec'05 to Aug'16

	Main	Sec
Trunk Sewer/Box Drain	107	34
Length	2,14,100	37,773
Cost (Rs.)	440.081 million	75.546 million

4.2.5 Nala Development into Box Trunks – KMC/CDGK Construction and Investment Jun'1999 – Aug 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, 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

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.

4.3 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. Most, as per OPP-RTI designs, 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 stopped.

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.

5. LOW COST HOUSING PROGRAMME

5.1 Introduction

After the success of the sanitation program the housing program was initiated in 1986, following the same R & E approach. Surveys showed that poor people's houses in Orangi had the following defects:

- sub-standard manually made concrete blocks - the main building components for walls and foundations - caused cracks
- faulty construction techniques, as well as the quick fix attitude of masons and house owners
- the existing structure being weak, could not take the load of the conventional RCC roof, for ground plus one construction
- lack of ventilation

Two years were spent, on research on these problems and later years, on extension of research findings. Initial research and extension of research findings were in itself action research and so threw up another line of research and extension. The process continues.

Research consisted of:

- upgrading the local thallas (building component manufacturing yards) by improving the concrete blocks and roofing components (experiments on ferrocement roofing channels, precast batton tile and tier girder tile roofing).
- evolving standard construction design & techniques
- preparing standardised steel shutterings
- writing manuals and instruction sheets
- preparing audio visual aids
- demonstrating model units

Extension consisted of:

- finding thallawalas willing to participate in research and development (R & D)
- training masons - teaching them improved design and construction techniques and the better use of tools
- lending tools and shutterings
- providing accurate plans and estimates

R & E reduced the cost and improved the quality of construction. Upgrading the thallas was an important aspect of the work, so a little about it.

Upgrading the Thalla:

In 1987 thru research and extension, first in one thalla (building component manufacturing yard) the block making process was modernized. Instead of the hand process of concrete block production which produced very poor quality blocks, the mechanized process together with other improved techniques was introduced (details were provided in previous report). The result was, the machine made blocks were 4 times stronger than the hand made blocks but sold at the same price. In 1987 three more thallas were mechanized with OPP-RTI supervision and loan. The production and sale in these thallas has been documented. By Aug'16, 54.985 million blocks worth Rs. 243.033 million have been sold, 60% of these have been sold outside Orangi. Following the example of the first four mechanized thallas, 121 thallas adopted the machine making process without any loans from OPP (survey Dec'2006). Orangi has become a centre for the production of mechanized blocks in Karachi. With the blocks sold at these thallas, annually, average 2,500 houses benefit from use of improved building components.

5.2 Present Package of Advice and Extension:

The package of advice, (the load bearing technology), provided earlier was as follows:

- Appropriately designed in-situ foundation for a minimum ground + 1st floor construction
- 6" thick load bearing walls of machine made blocks
- Batten/tile or T-girder/tile roofing (specifically) and proper fixing methods
- Precast staircase
- Proper orientation and ventilation
- Proper construction techniques

This load bearing construction is 1/3rd the cost of RCC (Reinforced Concrete Construction).

Impact studies were undertaken. **Presently the extension of techniques are being undertaken, by the support institutions TTRC, TTC and UTC, (youths from community trained as para-architects) to house owners and masons in Orangi and Gadap towns.** The focus of those support institutions is proper orientation and ventilation. Efforts have been initiated to implement the earlier package of advice in the goths of Karachi, focus now is proper ventilation and a structurally sound unit.

5.3 Construction and Demonstration

With the introduction of appropriate techniques, the construction units have required careful supervision. Masons and youths have been trained as community architects/extension agents. The training of youths has evolved into support institutions - the TTRC, TTC, the newly formed UTC, as detailed below. Total 662 demonstration units have been completed with 197 masons trained, mostly in Orangi. Since early 2002 TTRC is extending support for house construction in Orangi and the nearby towns. Since 2010 TTC started similar work in Khairabad/Zobu goth in Gadap town, now extended to Orangi Town and other goths in Gadap town & Keamari town. Since Nov'12 UTC has initiated work in Orangi town, with the support & supervision of TTRC.

5.4 Training, Extension and Documentation – The Technical Training Resource Centre (TTRC), the Tameer Technical Center (TTC) in Gadap town and Ujala Technical Centre (UTC) in Gulshan-e-Zia, Orangi town.

- a) **Youths trained as community architects setup the TTRC and are managing the extension of the housing program and its documentation:** So far plans and estimates for total 632 units were completed (11 last period). Of which 233 are schools, where ventilation improvements have been a focus. For 458 units fees was received from owners. On 5 projects preparation of plans and estimates are in progress. Supervision of total 268 projects were completed (5 last period). For extension of techniques TTRC undertakes mobile guidance i.e. units under construction in the settlements are observed and on the spot guidance is provided. Total 264 units were provided guidance, more masons and house owners have come in contact, documentation is ongoing. **Lack of proper orientation, ventilation and foundation techniques are the recurring problems in houses and schools.** Through on site guidance, leaflets, posters, meetings with CBOs, community activists, masons, schools and house owners, the importance of these are being emphasised. More youths are being trained by TTRC. Its support for area mapping is another important activity as explained in 1.7.3. (Report not received)
- b) **TTC have evolved linked to the Housing Savings & Loan Program.** Youths trained and guided since June'09 have setup the Tameer Technical Center (Jan'10). TTC so far has documented 252 units (7 this period). This documentation shows the lack of

orientation, ventilation and technical issues in the houses. The program helps in solving these issues by mobilizing the community through on site guidance, leaflets, sample designs of houses, meeting with masons, house owners and site supervisors. 165 house owners have been motivated in accepting the solutions provided by TTC of more houses plans are under process. Masons, house owners and site supervisors are in regular contact. 59 house owners planted trees on motivation; a number of houses also grew vegetables in Zobu goth/Khairabad. With contacts restabilished in goths motivation has been initiated for tree plantation in Allah Rakhio and Gulshan-e-Saifal Muree Goth. A new initiative by TTC; a youth (girl) from Mansoor Nagar, Orangi interested in mapping of housing is under training on drafting and planning. 4 students have been trained on basic drafting in Moach Goth, Kemari Town. The plan is to expand the housing, saving and loan program in the goths of Karachi with the support of the youths from the community. 3 requests received from Moach Goth for house improvement, process of HSL program initiated through the trained youths of the area.

An internal review of OPP-RTI's programs concluded lack of technical guidance to the masons and house owners during construction, by TTC. TTC is being guided on technical supervision during house construction by a senior technical team member.

- c) **UTC:** 4 new youths from the community are being trained by TTRC since Nov'14 on drafting /planning of houses. UTC has so far documented 135 units (10 last period). It has evolved link to the HS&LP and has provided support to 90 units. Initially TTRC has provided support to 10 units out of the total 90 units.

Statistics Aug'09 – Aug'16

	Units Documented	HS&LP	Supervised	Interview (Need Detailing)
TTC (Jan'10 onwards)	252	148	165	53
UTC (TTRC) (Jan'13 onwards)	135	90	86	87
Total	387	238	251	140

6. EDUCATION PROGRAMME: SUPPORT TO SMALL SCHOOLS

6.1 Educated Youths Take the Initiative

As the Sanitation Programme spread in Orangi and in other low income settlements in Karachi, OPP-RTI came in contact with the educated youths from these settlements, most of whom were college students. Having been educated themselves they had the desire to educate neighbourhood children. These children could not go to school, either because they could not afford the high fees of established schools, or there were no schools nearby, or the working children were free only in the evening. Some educated youths were already giving private tuition. They had some space in their homes for starting a school but lacked funds for purchase of mats, stationery, black boards, table and chair. In some cases construction of a shed or roofing of a verandah was needed.

6.2 OPP-RTI's Support

We decided to support these young entrepreneurs in setting up schools by providing a small grant, ranging from Rs.1300 to Rs.6000. In April 1995 we provided support to a youth of Islamia Colony, Site town, for the first school. Rs.1300/- was given for construction of a roof over a verandah in his home which could be used as a classroom. Then 5 more youths from nearby settlements were provided support. Students from Ghaziabad in Orangi wanted to educate children from their settlement, who worked in the embroidery and carpet workshops. In Sept'95, they set up a night school, with a support of Rs.4500/-. Soon more requests for support from Orangi as well as from settlements outside Orangi started being received. We found that there were many small schools set up by educational entrepreneurs. These needed small support of Rs. 10,000 to 20,000/- for physical upgrading. Often it was found that with no support the initiative would fizzle out. **Small grant support to initiatives proved to be effective in confidence building and solvency of the small schools. With small schools becoming successful more new schools have been setup as the demand has increased. This is the demonstration affect.** From April'95 upto March 2007 we supported the upgrading of schools with small grants. Then for about a year and a half, the program only focused on mobilizing School Saving Groups and teachers forums. **Since Nov 2008, small grant support to schools has restarted, complimenting and strengthening the School Saving Groups.** Grant to school is stopped. OPP-RTI is now focusing on the improvement of academics through teacher training. A study was conducted to observe the status of the schools supported. It was observed that there is a need to strengthen contacts among schools and form a cooperative so that joint actions become a possibility. Mobilizing schools towards saving groups and teachers training have re-established contacts among schools.

6.3 Schools Functioning

We have supported the setting up/upgrading of 654 small schools. 363 of these schools are in Orangi and 292 are in the adjoining towns of Gadap, Site, Baldia, Kemari and Bin Qasim. Grant to schools has stopped.

Statistics April'95 – Aug' 2016

Schools Supported	Total	Teachers		Students			Fees (Range)
		Male	Female	Total	Male	Female	
654	4,986	1,318	3,668	87,331	46,241	41,090	Rs.40-500.

The 2002 - 2006 survey of the settlements of Orangi Town showed that there are 644 private schools (setup by local educational entrepreneurs) and 69 govt. schools. Orangi map documenting the location of the surveyed schools is available. Of the private schools, it has been observed that 50% i.e. 322 are small schools falling in the 1st stage category with student's enrolment averaging upto 150. The support for the 1st stage has been provided to 322 of these schools plus to 41 new

schools i.e. total 363 schools. **More schools are being setup. The program extended to more towns;** total 292 schools have been supported, 57 in Gadap, 1 in Gulshan, 135 in Baldia, 24 in Kemari, 73 in Site and 2 in Bin Qasim town.

A survey conducted shows 98 schools supported by OPP-RTI of those 56 have closed down in UC-6 and 8 Orangi town. An impact study was conducted to document the reasons of closing down. The study showed that out of the 56 schools documented closed, 12 are still functioning, 3 schools of the 12 are operating from the same location while 9 have shifted to different locations for various reasons. For details of the 44 schools closed, a report has been compiled.

Schools in the goths of Karachi: As contacts in the goths (traditional villages fast becoming urban) in Karachi have increased due to the Secure Housing Support Program (section 3), total 69 schools have been supported. Of the schools supported, 27 are managed by women.

A survey conducted shows that out of 46 schools supported in Goths, 41 are functional. In 20 schools enrollment has increased, in 3 enrollment has decreased while in 9 it is same as at the time of support.

Survey documentation of 235 goths shows that total 273 schools exist , of these 180 schools have been setup by community entrepreneurs.

6.4 Stages in Expansion:

We have observed that there are four stages in the strengthening of these schools, **a fifth stage has also emerged:**

First: when educational entrepreneurs need small financial support, about Rs. 15,000-18,000 (lately Rs. 20,000) are provide as grant for upgrading small schools. This financial support has been ceased; a total 654 schools have been supported till date.

Second: within a year the schools take an institutional shape with salaried teachers, and students paying fees. There is increased demand for enrolment of students. Need arises for physical expansion i.e construction of an additional classroom or roofing over existing structures. At this stage support amounting to about Rs.35,000 is needed. This support is important for the survival of the new schools. Initially donors provided grants for a few schools, later OPP-OCT (Orangi Charitable Trust) credit program arranged interest free loans.

Third: with support at both the stages, the schools become stable as formal educational institutions. They then develop the capacity to upgrade their schools thru taking loans and paying them back with interest. OPP- OCT has so far given 623 loans for upgrading schools (2 last period).

Fourth: with the coming together of a number of schools (about 20-40/group) as savings and credit groups, for continued upgrading. OPP-RTI supports the mobilization of the groups.

A Fifth stage has emerged for academic improvement, the program has stepped up towards teacher training; training workshops and courses are being conducted by the OPP-RTI education team or resource personals belonging to concern institutions. This period, a meeting was held with 30 school owners/teachers from 24 schools to discuss the existing quality of education and ways of improvement.

6.5 Budget for Expansion:

From 1996 upto Feb'11 Rs. 8,513,134 were received as grants mainly from Homeless International (H.I). Total 574 schools were supported. Most schools were supported with the 1st stage grants and some for the 2nd stage. OPP-OCT continues support for the second and third stages. The fourth and

fifth stages are also ongoing. From Oct'11 till Mar'2016 OPP-RTI has mobilized resources from other sources for supporting 64 schools located in the goths of Karachi.

6.6 Revolving fund for interest free loans to schools:

The fund is managed by the OPP-OCT, the micro credit institution. Total 181 schools have acquired interest free loans amounting to Rs.31,88,710 from this fund, for further improvements.

6.7 Teacher Trainings, lectures and the School Saving Groups:

Fourteen teacher training courses were organized during 2000-05, in which 379 teachers belonging to 138 schools participated. The program was paced down due to non availability of affordable trainers. **The grant support has been a source of confidence building for the schools, which have been strengthened and encouraged to undertake joint activities.** It has been observed that several school groups have started offering regular teachers training courses. The new initiative is that the education team is under training to become master trainers and provide teachers training, at low cost to these schools. (details next page). A total three 3 days basic teacher training course have been conducted till now 54 teachers participated. Two (3 day and 5 day) training workshops titled "Basics of English: was conducted at OPP- RTI and Asmoon Academy by a partner Head trust, 134 students participated

There are also School Saving Groups. Some mobilized by the program, while others that are already functioning contact the program for support. Group of 55 schools in Orangi town, named as United Educational Development Society (UEDS), mobilized and facilitated by partner TTRC, is active. Rs. 7,92,050 has been saved thru monthly contributions. OPP-RTI provided a small matching grant. Small credit, of Rs.5,000-25,000, was provided by the group to total 28 member schools. Support for lab equipments was also provided, more then 200 students of 12 schools continue to use these. To avoid the menace of cheating, in the 10th grade examinations conducted by the govt., since Feb'10 the group has organised regular pre examination trials. Total 920 students of 47 member schools participated. On the groups request OPP-OCT has allocated Rs. 5,00,000 for credit to the member schools. 4 groups have been initiated by TTRC with 25 members and Rs. 38,000 savings in Orangi. Since Oct'11, twenty four schools have acquired loans for school upgrading. A group of 31 schools in Baldia town and 14 schools in Site town and three groups of 28 schools in goths of Gadap town are activated. While more groups are being mobilized through partner TTRC.

For strengthening the coming together of schools, lectures and forums are organized. Total 17 lectures have been organized. Threek-e-Niswan also conducted 4 theatre workshops titled "Peace in Karachi". Besides adding to their skills, the events have provided an opportunity to school owners and teachers to come together. (Lectures and forums have been documented, six have been published. As needed schools also use these printed lectures in their training courses). This coming together of school owners and teachers strengthens and more often reestablishes contacts. OPP-RTI has taken a step to support these schools.

Courses taken by the Education team:

	Trainer Organisation	Course duration and date	Topics
1	ASSET	4 hours, April' 2014	Rethinking our Education System, Desire for Betterment.
2	SAP	4 hours, May' 2014	Science Club: an Innovative approach of introducing Research and Inquiry.
3	SAP	4 hours, June' 2014	Effective questioning in Science.
4	Behbood Ass KLRC	32 hours, July13-21, 2014	Role and Responsibility of a

			Teacher, Class room Management, how Children Learn, Teaching aid Development, language development, lesson planning.
5	SAP	4 hours, Aug' 2014	Learn Innovative Approach in teaching Science. Focussing on reading and writing skills.
6	ASSET	4 hours, Sept' 2014	Land Forms: Pakistan.
7	ASSET	4 hours, Oct' 2014	Holistic approach towards learning Social Studies.
8	ASSET	4 hours, Nov' 2014	Making choices and decisions in Career path.
9	SHADE	4 hours, Nov' 2014	Emotional Intelligence.
10	Behbood Association	7 hours Jun 1-2, 2015	Multi skill training
11	ASSET AKU-IED	12 hours June 11-13, 2015	Resource Development for Interactive teaching.
12	ASSET	Aug 22, 2015	story of Pakistan.
13	SHADE	4 hours Sept 5, 2015	Leadership with a difference.
14	SHADE	4 hours Sept'12, 2015	Creative collaborationh.
15	ASSET	4 hours Sept 12, 2015	Celebrating diversity.
16	SHADE	4 hours Oct 17, 2015	Risk management (Shake out drill).
17	SHADE	4 hours Nov 19, 2015	Consultancy for better schools.
18	ASSET	7 Hours May'14 2016	Theater in Education

OPP-Education team has renewed their yearly membership with AKU, IED since April 2016.

A one year plan of training courses/workshops (Feb – Dec 2016)

Months	Facilitator	Topic	Duration	Venue
Feb	Tehrik-e-Niswan	Theatre Workshop	4 hours	OPP-RTI hall
Mar	Centre for Research and Social Development	Career development	4 hours	At Orangi school
Apr	Prof: Meraj Siddiqui HEAD	English Language Basic Course	3 months	At OPP-RTI Hall
May	Fatima Naqvi the Education Foundation	Creative writing	4 hours	At OPP-RTI Hall
June	Ramzan	-	-	-
July	HEAD Trust	Basic Teacher Training	8 days	OPP-RTI hall
Aug	ASSET, AKU, IED	Social Studies	-	-
Sept	Tahira Bachal Dream Foundation	Pre-primary Course	3 days	OPP-RTI hall
Oct	Nimra a trainer from U.K	Montessory Course	3 days	OPP-RTI hall
Nov	Zubeida Mustufa	Medium of Instruction	4 hours	OPP-RTI hall
Dec	HEAD Trust	Teacher Training	8 days	OPP-RTI hall

6 workshops have been conducted till now.

6.8 Documentation:

Statistical profile of 654 schools are available, in addition, interview profiles of total 104 school entrepreneurs, pictorial profiles of total 400 schools have been prepared.

Research data on the status of student's enrollment was compiled. Of the 109 schools supported, between 2006-09, data shows that at the time of support there were total 16,812 students, by June'12 there were 26,024, a 64.6% increase.

Documentation shows that with the grant for the 1st stage amounting to Rs. 12,000 to 20,000, some schools were able to manage physical developments worth 2-3 times the amount. The school entrepreneurs have received most financial support from their families, for initiating and strengthening the schools.

Profiles of 10 selected educational entrepreneurs, published in English and Urdu, is available. For the second edition, profiles of ten women educational entrepreneurs has been published in Urdu, which includes schools supported mostly located in the Goths of Gadap town. This is being translated into English.

A pictorial map of schools has been prepared, showing pictures of schools supported in Goths with reference to their location on the map of Karachi.

7. Women's Savings Program

Asia groups sharing

Initiated in 2009 (sponsored by the Slum Dwellers International) with its 6th meeting held in Bangkok in Feb'13 has inspired women saving groups here. In the meetings community activists (mostly women) got the opportunity to learn from and share their work with groups from Nepal, India, SriLanka and the Phillippines. Strengthening of existing, mostly, women's savings groups and mobilizing new ones has become a part of OPP-RTI and some of its partners work.

Program expansion and linkup:

Some existing groups and new, mostly women and youth saving groups have been mobilized in Karachi, (also by partner TTRC), DG Khan (by partner GDO), Jampur (by partner NSF, PWF New Saeedabad (by partner AMRDO) Sakrand (by partner WWO), Sinjhor (by partner RAWDO), Sanghar (by partner SWDSO), Samaro (by partner SRDO), Shahdadpur (by partner ZHO). **In the 141 groups 3,493 members have saved total Rs. 10.155 million.** Within the groups emergency loans (mostly for health and education) and some for livelihood have been initiated. In 2010, 10 groups, small matching grants of mostly Rs. 30,000 were provided as support, (when the groups savings reached more than Rs. 40,000). This support was ceased in 2011 to improve the group's sustainability and decrease the dependency on OPP-RTI. To facilitate the saving groups, OPP-RTI's team organize meeting with the members regularly. 5 meetings were held this quarter; 2 with the existing groups and 3 with new women saving groups formed in 1) Yousuf Sb Faqiria goth 2) Sector NO.8-L. Contact was re-established with 4 women saving groups in Moach Goth. Meetings have concluded a need of the housing program in the area.

The micro-credit program has been initiated by OPP-OCT in the Women Saving Groups in goths of Karachi with a loan amount of Rs. 15,000 for personal purposes. 46 (5 last period) members of the 3 saving groups; Rose, Life saving & Saifal Maree saving group have been supported. Recovery is on time.

6 trainings have been organized on kitchen gardening with 154 women from the saving groups in Orangi town.

Statistics:

Savings Group in Karachi and Outside Karachi – Aug'2016

	Total Groups	Total Members	Total Amount
Karachi	38*	1132	52,53,560
Out Side Karachi	103+	2361	49,01,645
Total	141	3493	1,01,55,205

* 35 Women's groups, 1 youth group, 2 general groups.

+ 100 Women's groups, 3 general groups.

9. FLOODS - RELIEF AND REHABILITATION

1) Situation

In the last week of July'10 devastating floods, due to heavy rains (the likes last recorded in Pakistan in 1928), damaged thousands of villages and many towns located mostly up to 4-15 kms both sides of the River Indus. The river spans north to south across Pakistan. More than 1,600 people were killed and more than 20 million affected.

Ripe crops of cotton, rice and sugarcane were destroyed (more than 17 million acres of agricultural land were submerged in water). Houses were washed away. The livestock i.e. cows, goats, sheep, camels, donkeys, horses and buffaloes drowned, fish and poultry farms were wiped out. People took shelter mostly on embankments and highways, in the open. Some reached nearby towns and cities, located at safe distances.

Immediate needs of food were taken care of, mostly, by the people from the nearby villages/towns that were unaffected. Government, local organizations, UN and other international agencies food supplies later reached the affectees. Medical camps, in some areas, continue to be managed by active members of the community, NGOs, and other volunteers, together with the Govt.

By Aug'11 unprecedented rains flooded many districts in the South East of Sindh, mostly those areas that were unaffected in the last floods. Extensive damage was caused mostly by a defective drain known as the "left bank out fall drain". It was designed to drain saline water from upper Sindh down to the sea, but due to the defective outfall there is always back flow (upto 40 km inland), which was made worse due to the heavy rains. Partner NGOs were involved in rescue and relief efforts – support of medicines for the medical camps was initiated by OPP-RTI and OPP-OCT. Support for shelter, handpumps and schools continues.

2) Partners efforts

OPP-RTI and OPP-OCT partners in many places mostly in South Punjab, Sindh and lately in Balochistan continue to provide the needed rehabilitation services in the respective areas. Relief camps providing food, medicines and where possible shelter, were earlier managed in the affected villages, towns and cities across the country. As the water receded and people returned to their villages, partners are now involved in rehabilitation i.e support for roofing for a room/house, provision of hand pumps and managing health centers/mobile medical camps reaching the villages. Support for shelter, handpumps and setting up of schools in the villages continues. By Nov'10 seeds and fertilizers were made available (by OPP-OCT) as a one time support, presently support for livestock continues.

3) Support being extended

3.1) Medicines for medical camps and provision of mosquito nets:

OPP-RTI and OPP-OCT provided support, for medicines, to twenty eight partner/organisations in the affected areas. Homeless International, ACHR and Misereor support for medicines have been very valuable. In addition after the Aug'11 floods Getz Pharma's support for medicines and mosquito nets and Pfizer's support of discounted medicines has been very valuable. In South Punjab in Jampur, Rajanpur, Kot Addu, Layyah and D.G Khan, in Sindh in Ghotki, Saeedabad, Khairpur, Kandiaro, Hyderabad, Shikarpur, Kashmore, Tando Md. Khan, Kunri, Hala, Umerkot, Badin, Shahdadpur, Sinjhor, Pretamabad, Sakrand and Thatta and in Balochistan in Jafferabad support for medicines was provided. **More than 1,05,467 patients were treated during the period Oct 2010 to Sept 2011.**

Medical camps /centres were managed by ten partners. With one medical camp by one partner, on average, treating upto 100 patients a day – some partners managed medical camps daily, while others on average 2-3 days a week - with about 1,000 patients were treated in a month. Doctors/medical technicians and also some medicines were arranged by the partners, providing voluntary services.

Provision of mosquito nets: To save guard against malaria which is a frequent occurrence in the affected villages, since Dec'11 mosquito nets are being provided (2 of single size or 1 double and 1 single/family as needed). Total 17,200 families have been supported.

3.2) Roofing for shelter:

By Oct'10 as the water receded people settled back in their damaged villages. **Support for shelter i.e roofing components for a room of 14'x15'/house (costing upto Rs. 14,000/-) and rubble removal kits (for use by 6-10 houses costing upto Rs. 4,500/-) was initiated.** Support has also been extended to the areas damaged in the floods of Aug'11. Support has been planned to be extended to upto 30,000 houses. In villages near 2 cities and 32 towns thru 45 partner organisations work is in progress (South Punjab – IDSP in Layyah, GDO in (Karor Lal Eason) Layyah, GDO in D.G.Khan and TF and Qaswa, NSF,OHD in Jampur, PWF in Harand , Rajanpur, AZM in Jhang, IHP in Multan, Sindh – HWA and Alakh in Ghotki, MES, SDPP in Khairpur-Kingri and Gambat, GSF in Sobhoderi, IRADO in Mithiani and Naushehro Feroz, ICDO in Moro, AMRDO in Saeedabad, SHED in Matiari, SRDO in Shahdadpur, BDF in Dadu, VWS in Daultpur, SEAD/ WDO and HDWA, NWO in Badin, Sehkar in Barhoon, MDF and CDIP, Catholic Church in Tando Allayar and HF and ISC, SHAA in Thatta and Hyderabad, DARD in Khipro, WWO in Sakrand, SWDSO in Sanghar, SDF, RAWDO in Sinjhor, SRSP in Jati Sujawal, SRPO, MEHWA in Mirpur Khas, SRDO in Samaro – Umerkot, Balochistan-IEWS & WWO in Jafferabad, URC in Awaran, Khyber Pakhtoon Khwa (KPK) – BDO in Shangla).

People are completing mud walls/pillars. Roofing over a room is completed, for 30,324 houses spread over 2,215 villages, this work is complete, The roofing components for Punjab/Sindh are 2 girders, 12-16 bamboo/wooden battens, reed matting, plastic sheeting and rope.

In most cases women have completed the mud walls/pillars and plaster with men fixing the roofing components. In Punjab/Sindh two types of roofs have been supported as per the tradition of the areas 1) the slope roof ,needing 1 girder (16'-17') and 18-20 bamboos (20' each) and 2) the flat roof, needing 2 girders (16'-17') and 12-16 bamboos (16'-20'). In some cases houses have been able to retrieve girders or bamboos from the rubble of their houses, so have voluntarily taken only the needed roofing components. Therefore more houses have been supported with roofing over a room/house. Effort has been made to support maximum number of houses. Partners have organized village committees in each village for joint survey, selection and management of work. **Documentation and accounts have been meticulously maintained.** Audit of the Misereor phase-I, II, III, IV and V projects for roofing for 24,291 houses were completed. For the 5th phase (7,600 houses) support with in batches of 50 shelters to each partner is organized. For the 5th phase of shelter market rates have been reviewed for all partners. Rates are found to be on downward side as the demand for these materials has decreased since 2010-11 floods. The average cost of 14'x15' size room is now Rs. 12,500 Misereor has been very kind to approve the 5th phase of support for the provision of 7,600 more shelters, which is continuing.

Misereor, ACHR and HI – MRDF's timely support for the roofing and hand pumps has been very valuable.

Due to the unprecedented rains in Sindh spanning Aug-Sept'11 in some places the supported shelter was damaged. Mostly mud walls developed cracks and in parts these were washed away.

An assessment by Dec'11 showed that 8% houses were damaged. The roofing in most cases remained intact with additional supports/pillars. In some cases people dismantled the roof, and later used it in rebuilding. Repairs and reconstruction have been undertaken. **An aspect that kept the houses safe was the raising of the floor level upto a height of about 3 feet, this has since become an essential for the program.**

In May'12 facilitated by Misereor, a member of the French organization Caraterre visited the site and observed the rehabilitation program specially the housing support. Valuable observations and advice were 1) documentation of people's good practices/techniques of construction, to facilitate extension 2) considering improvement in the village as a whole, for example earth filling of ditches for keeping foundations secure from water, suggesting proper locations for handpumps - using waste water and as needed assisting in the layout of houses 3) continuing the support for housing, evolving as a housing support/village upgrading program. **The visit has provided OPP-RTI a useful and exciting direction for strengthening work.** Good practices are being documented while extension of techniques continues.

3.3) Handpumps:

As people settled in their villages, by Dec'10 support for replacement/repair of handpumps (costing about Rs.3,000-7,000) was undertaken. One handpump is needed for about 6-10 houses. Provision of 521 new handpumps and repairs of 23 are complete, spread over 259 villages in Jampur, DG Khan, Layyah, Kingri, Sobhoder, Ghotki, Daulatpur, Moro, Saeedabad, Badin, Matiari, Jafferabad, Sanghar, Hyderabad, Sinjhor, Sakrand, Harrand, Rajanpur, Khairpur and Catholic Church (Tando Allahyar, Mirpur khas). Provision of more handpumps is planned thru partners. In many places people have managed to repair existing handpumps as well as install new ones on self help while many other agencies/NGOs have also provided support.

3.4) Schools in villages:

Before the floods schools and medical facilities were non existent in most of the villages. Effort is being made to set up schools in the villages. Local educated youths are being identified, motivated and facilitated to start a school. **In 10 places, Layyah, Khairpur - Kingri, Ghotki, Moro, Sobhoder, Badin, Hyderabad, Sinjhor, New Saeedabad and Jampur total 26 small schools are functional.** Report of 26 schools shows that 1,198 children are being educated. For the schools support for roofing over a room of 16'x20' and a years stipend for the teacher is being extended. **In two schools earlier supported (one each in Ghotki and Khairpur) community has started paying a stipend to the teacher.** Course books, floor matting and black boards have been arranged by the partners. Thousand copies of two course books (of the Sindh text book board), that are unavailable in the market, were earlier acquired from the printers, as needed these are being provided to partners. Schools as centers for health/hygiene practise and training are being planned (with a toilet and a sewage disposal system), water filtration/storage and a washing space with soap. For sewage treatment and disposal, demonstration of EM-STU began in late 2012, EM-STU's have been constructed in 1) village Paryalo Chawro in Hyderabad managed by partner HF 2) village Pir Buksh Mugheri in Badin managed by WDA and 3) village Dost Mohammad Chacher in Ghotki managed by partner HWA Foundation. Basti Qadir in Keror Lal Eason, Layyah managed by partner GDO. OPP-RTI provided technical support and material, community contribution is in labour, mud wall of toilet and its O&M.

V. OPP- KHASDA (Karachi Health and Social Development Association)

1. OPP-KHASDA is involved, since 1985, in raising awareness on health education, family planning (F.P), immunization and nutrition in low income settlements of Orangi. It conducts training of vaccinators, Traditional Birth Attendants (TBA) and also on contraceptive technology. Services of vaccination and FP are extended to the communities, while area clinics are supplied vaccines and contraceptives. A model clinic functioning at the office premises also provides the program services and training.

Some statistics of work are:

Upto Dec'2011, 27,694 children have been fully immunized.

Details are:

BCG	DPT-I	DPT-II	DPT-III	Measles	Full Immunization
57,153	48,295	5,260	6,038	27,694	27,694

F.P Supplies:

Condom units	O. pills cycle	IUCD	Inj NOR	Inj DEPO	Tubeligation	NORP
12,523	6,145	531	18,863	9,166	688	25

TBA's training: 624 dais have been trained.

Vaccinators training: 247 vaccinators have been trained

2. To extend the health services effectively to the community, by Nov'11, the organization and its program was reviewed and re-structured:

The activities being undertaken, since Dec'2011 upto Aug'16 are:

- a) Immunization b) Birth spacing services at the model clinic c) Vaccine contraceptive supplies to area clinics.

a) Immunization:

	BCG	HB +Polio	Polio I	Polio II	Polio III	Penta I	Penta II	Penta III	PCV I	PCV II	PCV III	Measles	TT I	TT II	TT III	TT IV
Dec'11- May'16	777	100+ 90	939	779	720	939	779	720	561	463	429	1272	249	188	37	4
Jun'16- Aug'16	45	- + -	56	37	31	56	37	31	56	37	31	58	19	11	3	2
Cum Aug'16	822	100 +90	995	816	751	995	816	751	617	500	460	1330	268	199	40	6

b) Birth spacing through model clinic

	F.L unit	OP cyc	Inj	IUCD	T.L
Dec'11- May'16	3281	221	254	19	5
Jun'16-Aug'16	96	4	19	-	-
Cum Aug'16	3377	225	273	19	5

c) Vaccine/Contraceptive supplies to clinics:

	No. of Clinics	FL	OP	INJ	CT
Dec'11-May'16	55	926	447	355	12
Jun'16-Aug'16	-	-	129	37	-
Cum Aug'16	55	926	576	392	12

3. Health education and TBA's Training in Goth

With the support of saving groups; the health education and TBA's training program has been recognized in a goth of Gadap town.

TBA's training was initiated in the month of April 2015 supervised by the team of OPP-KHASDA. Dais are mobilized on child care, meternity health care services as well as safe motherhood is also promoted through this forum. Family planning services are also provided in these areas. Certificates have been distributed among for the 3 months training course signed by the Executive District Officer Health (EDO-Health) city District govt. Karachi. Recently a dai training course was organized in the three goths of UC-6, Gadap town. This course initiated an activity; the trainer is supporting the community through a one day per week clinic for the women of the goths. OPP-KHASDA will organize a mother's meeting for awareness on health issues, purification of water, prevention of coman disease, Nutrition, Hygine and birth spacing also vaccine give on the same day. Also the trainer has purchased an ultrasound machine for Rs. 2,10,000 through loan support by OPP-OCT, for the benefit of the women in these goths.(Rs. 5,000/month will be paid as installments to pay back the loan).

4. Mother meeting in goths of Gadap town

Sr. NO.	Name of goths	No. of meeting	No. of participants	Vaccine given	Contraceptive given
1	Meer Khan goth	2	18	-	-
2	Jalali Goth (Lyari Express 36)	7	104	113	Inj Depo 12, Oral pills 9, FL 24 units
3	Lyari Exp-51	5	60	31	Oral pills 19, FL 24 units
4	Umer Brohi	2	24	8	-
5	Khuda Ki basti	2	17	-	-
6	Universal Goth	2	33	-	-
7	Lyari express 35	2	18	9	-
Total		22	274	161	Inj Depo 12, oral pills 28, FL 48 units

5. School Health Education

School health education program has been initiated at Gadap town. In health education; 18 students of St. Keven School, Layari-35, Gadap town and 25 students of Kehkashon School, Universal goth, Gadap Town were guided. Reproduction health education session was held with 16 girls of St. Keven School, Layari 35, Gadap Town.

6. Budget: July'13 – June'14 = Rs. 600,000/-

VISITORS /TRAINING GROUPS



WaterAid's CEO visited OPP-RTI to discuss the low-cost sanitation program

Member from city light producers discussing on-going programs and activities



Students from NED University to discuss their thesis project

Training on low-cost sanitation in Harand, Punjab to partner PWO



LOW COST SANITATION - WORK IN KARACHI / ORANGI



Activists from Khair Mohammad, UC-6, Gadap Town identifying the goth's location



On-site visit by members from WaterAid in Ghaziabad, Orangi



A lane sewer being laid in Gulshan-e-Behar, Orangi Town supervised by OPP-RTI's team

LOW COST SANITATION - WORK OUTSIDE KARACHI - Through partner organisations



SWDSO-SANGHAR

Meeting with activists to mobilize on sanitation system in the community

CDSP-UCH SHARIEF

Supervision of a lane sewer being laid in Shams Colony



RACE-LODHRAN

On-site checking of the main line constructed in Karor Pucca

NSF-JAMPUR

Construction of a lane sewer in Bismillah Town, supervised by the technical team



MAPPING & DOCUMENTATION



Mapping and planning of Khair Mohammad, UC-6, Gadap in progress



The health survey conducted in Orangi being documented on map



LOW COST HOUSING PROGRAM - SUPPORT ORGANISATIONS TTC



Motivation on DPC- a house under construction in Yousuf Sahib Khan Faqiria Goth, Gadap- technical guidance by TTC



On-site training to students of Moach Goth, Keamari- extension of the housing program

EDUCATION PROGRAM



A meeting with Government school head/teachers offering a teacher training course



A meeting with Orangi School owners, discussed improvement of quality education



A group activity in a training workshop conducted by HEAD

WOMEN SAVINGS GROUP



Training on kitchen gardening to women saving groups in Orangi

Meeting with a new saving group, Sector-10, Orangi



Meeting with women from the saving groups of Orangi to guide on vocational training and extension

Review meeting with the women saving group, Khuda ki Basti, Surjani



Some Lessons Learnt while Working with Community, Government, NGOs/CBOs and some Axioms.

Working with community

- **Community has the resources i.e. skills, finances and managerial capacity**

In addition the community is aware of the problems, what is missing is the relationship of the problem to other issues, the possible methods of solutions and the appropriate technology required. Community needs social and technical guidance to properly utilize its resources.

- **Problems in *katchi abadies* are obvious**

A study is not needed to identify the problems. What is needed is an understanding of the people and the community. For example, the extent of the problems, how people perceive the problems, what possible solutions/method have they tried or would suggest. This can be identified through dialogue, discussions with the community and observations. This interaction in itself starts a process of mutual understanding between the support organisation and the community.

- **Role of an NGO – as a support organization**

A team of technicians and social organisers is needed to support the community. Technicians develop the package of advice and social organisers extend it. Social organisers need to be from the community. This resolves the problem of time, language, culture and rapport with the community. Some technicians can be from outside. Working with community requires consistency, flexibility and a low profile. In addition the support organizations low cost budget and simple office enables an equitable relationship with the community.

- **Package of advice is developed through interaction**

Technicians through interaction with the community develop a package of advice. This interaction takes place at all levels i.e. with elected municipal councilors, elders, local leaders and individuals. An attitude of mutual respect, sharing and learning is needed. The concept that community knows all or that technicians know all – both are incorrect. It has to be a combined effort.

- **Role of an activist**

There are some people in the community who are aware of the problems, think about it, try to solve it and are willing to listen. There is need to identify such people. In the process of developing a package of advice, while interacting with the community, activists are identified. These are the early adopters who extend the program. A bonus of this method is that the community identifies with the program.

- **Level of organization – smaller the better**

At the initial stages, the demonstration requires much concentration, time and effort. Therefore the level of organization needs to be small. For example – in Orangi a lane of 20 families is the level of organization. At a small scale, the understanding is better, conflicts are less, disputes can be easily resolved, the trials and errors can be controlled.

- **Time factor – Initial process is slow, but after the demonstration, there is a snowball effect**

In working with the community change in attitude takes time, but once the breakthrough takes place, it has a multiple impact. For example in Orangi, for the first lane to construct an

underground sewerage line, it took six months – later sewerage lines were being laid in 25-30 lanes at one time. After the breakthrough in sanitation, other programs i.e. health, housing, education and credit for micro enterprise were easy to extend. For quick results concept/approach should not be changed, as it can have a damaging effect on the program. For example for quick results if subsidy is given in one lane then, others expect the same.

- **People and government are partners in developments**

Problems are at all levels, neither the community nor the government can solve these problems alone. It has to be a combined effort.

Working with government

- Community participation is not the problem, governments and professionals participation in peoples work is needed. Everywhere faced with problems, communities are trying to solve their problems. Community initiatives need to be respected, accepted and supported by professionals and governments.
- In planning following is needed.
 - Map with documentation of existing work. So as to avoid duplication and the tendency of doing everything from scratch.
 - On the basis of documentation of existing works, provision of a master plan/investment plan to avoid ad-hoc work.
 - While doing detail plan for the settlement, consideration of the relationship within the settlement and its surroundings to avoid working in isolation.
 - Lack of above results in waste of resources.
- Issue is waste of resources rather than lack of resources.
- Working with the team in the government department, rather than with just the head of the department, ensures continuity of the work.

Working with NGOs/CBOs

For institutionalisation of development NGOs/CBOs, following are essential:

- a) Initial assured core funding for minimum three years, as institutionalisation takes time.
- b) Focus on three aspects: 1) Social and technical skills, including research and documentation 2) Organisational setup (team work) 3) financial discipline.
- c) Clarity of policy and limitations.

Some Axioms

- When people come together to generate or access funds and use it thru their own knowledge, they get empowered.
- Where community organizations take over functions of government or part of it they begin to establish an equitable relationship with the government.
- After a certain stage of expansion the project or program cannot go unnoticed, government is forced to coopt or negotiate.

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