

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

REPLICATION OF THE LOW COST SANITATION PROGRAM OUTSIDE KARACHI

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:

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.

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 186 goths and 45 nearby abadis in Karachi, total 43 sewerage/drainage projects are at various stages of design and implementation.

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 Shahdarpur 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. of the 148th quarterly progress report

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 of the 148th quarterly progress report as well as in the partner's progress reports regularly compiled by each.

Working with NGOs/CBOs and Government outside Karachi

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, last 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, for the rehabilitation of Jagpura main sewer 1900 rft. was completed last period. Mapping of Mahand (rural) completed last period, Saif Ghaloo is in progress.

Total work of internal sanitation completed is 368 lane sewers (3 this period) 59,676 rft. and 2 secondary sewers, 4,298 rft. serving as disposal for total 2,958 houses, with people investing total Rs. 12,333,765. 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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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, Toufeeque 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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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 287 lane sewers have been laid on self help in 29 settlements (5 laid this period) Sept'16 to Nov'16, 98 were technically supported by Hamet. Total 1,498 houses have invested Rs. 6,451,168/- 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 Usman colony, Qaide Azam Colony, Shadab, Samma Satta and Green town. 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. Last 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.

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 organizer and a technician form the team. Mapping of the town and documentation of infrastructure was earlier completed, while addition and updates continue. Total 106 lane sewers (3 this period) have been laid (55 technically guided by SHED some others mobilized), 470 houses have invested Rs. 2,414,524 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. 42 DB, Hasan colony and old Ghala. 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.

Research and Awareness for Community Empowerment (RACE) -Jalalpur Pirwala/Lodhran/Kehror Pucca:

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 organizer and a technician. Total 161 lane sewers were laid on selfhelp (4 this period), 72 technically supervised some others mobilized. In Lodhran, Jallah Arain/Kehror Pucca. 885 houses invested Rs. 3,818,304 on sewers and latrines. For more lanes, community mobilization continues. This period desilting of 2,240 rft. sewer in Basti Faizabad, B colony, Pathan colony. Technical support for 2 house connections provided in Basti Pathan. 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. This period mapping and documentation of Basti Adam Wahbean completed.

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 (last 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 desilting of 393 rft. sewer in Kehror Pucca and 3 house connections provided.

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 last period, money collection in progress. This period meeting held with community; Basti Jargar, Hafizabad, New Rajput colony and 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 55 lane sewers were laid on self help (32 technically guided since July'12) 343 houses have invested Rs. 1,557,171 on latrines and lane sewers. This period desilting of one lane in New Rajput colony. OPP-RTI team member regularly visits GUID for on site guidance and support. Last period one nala 148 rft. completed by Govt. at Basti Taragar (work has been stopped due to budget issues).

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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 Sheikpura, 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 Sheikpura, 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.

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 92 lane sewers a secondary sewer 15,637 rft. were laid on self help (two lane sewers laid this period), 959 houses contributed Rs. 4.34 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 last 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.

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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 14 lane sewers (1 this period) 1,905 rft. and one secondary sewer 524 rft. serving as disposal for total 92 houses, with people investment total Rs. 4,538,632. 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, Rehlan 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 (last period 2,700 rft.), OHD team is monitoring the work with the assistance of local communities. This period 3 community activists, 5 labour and 4 youths trained.

Nawan Sojhlana 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 65 maps completed, (this period 5 maps completed), motivation in newly mapped areas continues. Total 51 self help lane sewers 10,085 rft. laid. comprising of 685 houses, peoples investment is Rs. 2,449,814. 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 Sharqi last period. Rectification of 311 rft. sewerage line completed last period.

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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 22 lane sewers and three secondary sewers are completed (1 lane sewer and one secondary sewer laid this period) 101 houses contributed Rs. 9,53,729 for lanes. This period on request plans/estimates for 25 lane sewers were provided in Amanullah Dahri, New colony, Shahpur Chakar, Lemon Khan Talpur, Photo Khan Sanjrani and Ahmedabad. 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 technically supervised by SWDSO team, total 3,650 rft.(last period 2,150 rft.) completed. 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 Shahdadpur continues with regular review meetings at OPP-RTI and guidance on site. Details of their work are in the preceding sections.

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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. Last period one EM-STU completed connecting sewers serving 3 houses were completed on self help in Village Rasool Bux Khaskheli. This period mobilization meeting held in Rasool Bux Khaskheli, Jamal Faqir Khaskheli and Sain Khan Rajar. Two houses made house connection in village Rasool Bux Khaskheli. 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. (last period 300 rft. completed) open drain completed last period. Total cost of the project is 12 million. RAWDO is monitoring the work. This period map of 1 community (Ajetomal) completed. This period 200 rft. laid by Govt in Zafar town, Sinjhor City.

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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 197 lanes (9 this period) in the town. In the village "Majeed Kerio" (comprising of more than 1,000 houses) guided by WWO total 26 lane sewers 3,865rft. have been laid on self help (2 last 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 8 latrines was completed in Majeed Kerio, Mulla Sand Kerio and Wadera Mohallah. 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. This period meeting with the TMO Sakrand and talka chairman to discuss the sanitation program.

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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 last period) 2,550 rft. 160 houses have invested Rs.8,59,081. Eight EM-STUs' construction is completed (last 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, Kheto Malhi colony. 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, Wazir Khaskheli, Kheto Malhi colony (this period 2) is completed. OPP-RTI team member visited SRDO this period. Two members of SRDO team got the technical training. This period construction of one latrine was completed in Kolhi colony.

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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 Acher Brohi map is in progress. Technical support for plan/estimates provided to ZHO. There is community mobilization for collection of money in Lal Mohammad Waso, Mir Hassan Brohi, Mir Mohammad Kolei, Saiful Shar, Rasool Bux Jatoi, Lutf Ali Wagan, goth Dhani Buksh Raees and Baheel Mohallah. 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 Lutf Ali Wagan comprising 61 houses investment Rs. 0.243 million. This period construction of 2 latrines were also completed in Lutf Ali Wagan.

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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 last period).

In the villages mapped/documentated, 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 3 villages on community request, mapping and provision of design/est. was completed this period.

This period 3 case studies completed. Self help. repaired 7,500 rft. in Makria, Gol Masjid, costing Rs. 0.13 million.

Support to other organizations:

Global Development Organisation (GDO), A small core fund support has been initiated since Sept 2016. It is working in the villages around 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. Total 1 self help lane sewer 250 rft. laid comprising of 5 house people's investment is Rs. 51,000. Two EM-STUs constructed in Basti Qadir and Ward No.7. 5 latrines completed. Earlier two lane estimate, provided to community. This period one map completed of Basti Sargani.

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. This period one self help lane sewer laid 225 rft. comprising of 20 houses, people's investment is Rs. 85,970 and one EM-STU (10'x4') constructed in Chah Baloch Wala investment Rs. 0.025 million and one lane is in progress at Jatio wala.

Kunnar Women Development Program (KWDP) – Balakot, KPK, NGO, KWDP has initiated work. Mapping and documentation of 12 villages completed (2 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. Last period one water tank (5'x5') construction completed by govt. at Rorkan.

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. Fourty two 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 Sinjhora, one in Khairpur Tamewali, one in Jallah Arain, one in a village in Chah Baloch Wala, Harand, 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 Lutf 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).

National Sanitation Policies:

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

Statistics: Sewerage Construction Outside Orangi, Details are in section 1.8,1.81,1.82 of the 148th quarterly progress report

