

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

RESEARCH AND TRAINING (INCLUDING THE YOUTH MAPPING PROGRAM AND THE YOUTH TECHNICAL NETWORK)

Training

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.

Vaccinators and traditional birth attendant's training is undertaken by OPP-KHASDA. It has now extended to the goths of Karachi.

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 build up 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 of the 148th quarterly progress report. 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 19 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.

7 students are undertaking survey and documentation of abadis/goths in Karachi (outside Orangi). Mapping of total 517 abadis/goths is complete, 5 completed this period. Documentation of sanitation, water supply, clinics, schools and thallas in total 511 abadis/goths has been completed (5 this period (sept-Nov'16). Statistical data of 458 completed, of 5 completed this period. 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 been 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 of the 148th quarterly progress report.

13 youths, five in housing and one 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), of the 148th quarterly progress report 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 of the 148th quarterly progress report 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.

Youth initiatives and Savings groups:

Youths of the housing and survey mapping unit have setup the Technical Training Resource Centre (TTRC) details are in section 1.7.3. of the 148th quarterly progress report

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. of the 148th quarterly progress report

Youths of the mapping team have setup the "Peoples Mapping Centre" some details have been explained in section 1.7.3. of the 148th quarterly progress report.

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.

A youth group of 4 members in Moach Goth, Keamari Town are being trained on housing to evolve in to an organization.

Youth Saving Group: 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. 1,77,210 has been saved. There is motivation to use the savings as credit for undertaking training courses, since Mar'11 loans to 28 members have been provided.

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; 'Review of Karachi sewerage plan S-III'.

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.

Training Groups - Since 1992

Organisation	Cummulative- Dec'2016	
	Groups	Members
UN+Aid agencies+IFI's	88	555
Government agencies	143	1997
NGOs/CBOs	823	4,155
Academic Institution	66	854
Total	1,120	7,561

Visitors Since 1992

Organisation	Cummulative- Dec'2016	
	Groups	Members
UN+Aid agencies+ IFI's	180	491
Donors	241	523
Government/Elected members	465	1364



Academic institutions	280	1483
Media/Journalist (Foreign)	69	119
Media/Journalist (National)	119	206
NGOs/CBOs	854	2372
Others	88	284
Total	2,296	6,842

Surveys/Documentation

SKAA/KMC /CDGK Katchi 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.**

Survey Results: Dec'16

No. of abadis/goths surveyed _ *485

Total number of lanes _ 24,546

Total number of houses _ 253,577

Internal Development	Lanes	Houses	Investment (Rs)
Peoples Effort:			
Sewerage			
Lane+latrine+House Connection	7,196	74,961	92,069,300
latrine+House Connection (Govt.)		1,04,576	74,476,231
Total		1,79,537	166,545,531
Water Lines			
Lanes+House Connection	6,204	63,743	92,890,635
House Connection (Govt.Lines)		47,396	42,219,612
Total		111,139	135,110,247
Grand Total			300,655,778
-			(300.655 million)
Government Works:			
Sewerage (Lane only)	8,222	1,03,495	292,294,015
Water lines(Lane only)	4,920	65,258	90,993,735
Total			383,287,750
-			(383.287 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 458 (96.58 %). Data on Orangi settlements is available in separate tabulation in section 4.3. of the 148th quarterly progress report When combined, information is available of 97.163% abadies. The survey also includes 178 goths.

External development

Investment on external development by government and people has been tabulated for 426*abadis/goths*, statistics is given below:

External development	Number	Length	Investment (in Rs)
Peoples Effort:			
Secondary sewer			



	92	74,112	1,585,986
Secondary water line	106	92,292	1,289,342
Total			2,875,328
-			(2.875million)
Government Work:			
Secondary sewer	806	5,56,763	98,126,853
Main sewer	329	3,53,013	176,923,595
Main drain	193	2,78,190	300,453,843
Total			575,504,291
-			(575.504 million)
Secondary water lines	715	5,98,037	38,581,832
Main water line	597	7,35,724	152,940,145
Total			191,521,977
			(191.521 million)
Grand Total			769,901,596
			(769.901million)

Lease charges recovered by SKAA, by Jun'2004 has been Rs 206,530 million (information received from SKAA.)

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:

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 24,546 lanes, 7,196 (29.31%) 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 (33.496%) investing Rs. 292.294 million. The work has been five times more expensive then people's work.

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.

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 then 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.of the 148th quarterly progress report.

People also have the resources and the willingness to finance, manage and maintain internal water supply lines i.e lane and secondary pipelines. In 6,204 (25.27%) lanes, water lines exist laid on self help, with people investing total Rs. 135.110 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 4,920 (20.043%) lanes investing Rs. 90.993 million.

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 then Rs. 191.521 million.

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.



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.

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.

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.

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

	Government	Private	Total
Schools	171	414	585
Clinics	22	871	893

Survey shows that:

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.

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. 414 schools (70.76%) are private and 171 (29.230%) 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.

