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# CRANGI PILOT PROJECT

PROGRESS REPORTS  
April 1980 - June 1983

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COMMUNITY WATER SUPPLY AND  
SANITATION (ICWSS)

*All the reports have been written by Dr. Akhter Hameed Khan, Director OPP. However, Part II of report no. 13 is written by Ms. Perween Rahman, Joint Director (Technical), Mr. Anwar Rashid (Economist) and Ms. Zareen Majeed, Manager, women's programme. Part II of report no. 14 is written by Ms. Perween Rahman, Ms. Zareen Majeed and Moulvi Mahmood Vernalvi, Manager youth club.*

*These reports were originally cyclostyled and produced every three months in limited quantity for distribution among professionals, government departments and interested individuals. Except for the addition of the Introduction and pictures, no other changes have been made in the present report from the original quarterly reports.*

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# introduction

Orangi is a *katchi abadi*,<sup>1</sup> a squatter town inhabiting 800,000 people in an area of app. 5,000 acres. In Karachi division alone there are 362 such *katchi abadis* with a total population of 2 million.

For a long time the existence of such large numbers of people living in *katchi abadis* was not recognized by the government. As if these people did not exist. The government felt no obligation to their developmental needs and no attention was paid accordingly until a Directorate of Katchi Abadis was created in order to look into the possibility of providing the *katchi abadis* the basic services such as water supply and sewerage, etc.

The improvement of *katchi abadis* in terms of providing water supply and sewerage has involved large sums of money.<sup>2</sup> The government agencies responsible for this task, first the Karachi Development Authority (KDA) and since July 1981 the Karachi Metropolitan Corporation (KMC), have faced difficulties with regards to funding of these improvement projects.

There have been two possible sources of funding available to them. Either through foreign borrowing (from the World Bank, the United Nations, or the like), or by raising the required amount, running in hundreds of millions of rupees, from the local residents in the form of development and improvement charges.

As for the first option, the difficulty has been not so much in finding a lender as much as in finding the ways and means of recovering the loan money for repayment. The government would have to either repay the loan from its own resources or recover it through the beneficiaries (local residents of *katchi abadis*). When large sums are involved none of this seems to have been easily possible. Experience from Baldia Improvement Project of Karachi shows that recoveries from lease charges lag behind expenditure. In the first 3 years KMC spent Rs. 30 million but it recovered only 33% of this amount from the residents who are reluctant to pay lease charges so long as they do not see improvement works actually carried out.<sup>3</sup>

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1 These are also known as sub-standard urban areas (SUA).

2 According to a rough cost estimate, Rs. 1,650 million is required for the initial development of *katchi abadis*. (*Katchi Abadies in Sind: Challenges and Action Plan*, May 1982: Department of Housing, Town Planning and Local Government, Government of Sind; p.25)

3 *Katchi Abadies in Sind: Department of Housing, Town Planning and Local Government, Government of Sind; 31st January 1983, p.40.*

The problems involved with foreign borrowing has been best illustrated in the case of Lyari, another *katchi abadi* of Karachi. In 1974 the World Bank through the IDA was approached for financial assistance for the Lyari Early Action Project (LEAP) which involved essentially the construction of sewerage and drainage systems. A foreign consulting company was retained by the World Bank to review the Lyari sanitary sewerage system prepared for KMC by a Karachi firm. Large sums were spent for the many missions that came from the World Bank for preparation and appraisal of the project. In August 1976 the appraisal report was approved by the IDA loan committee. The World Bank proposed an IDA credit of app. 36 million (US) dollars or about Rs. 400 million,<sup>4</sup> and a team of Pakistani experts and officials were invited to come to Washington for settling the terms of the credit.

The question arose as to how the loan money would be recovered. The proposal suggested recovery from the beneficiaries in the form of lease and development charges. Eventually, the problems of repayment made it impossible to accommodate the credit in the Annual Development Plan (ADP) of the government. The plan had to be abandoned indicating the dilemma and the near impossibility of improving a low-income community through borrowed resources. All the money, energy and time spent on preparing a very fine integrated improvement plan seemed to have been wasted.

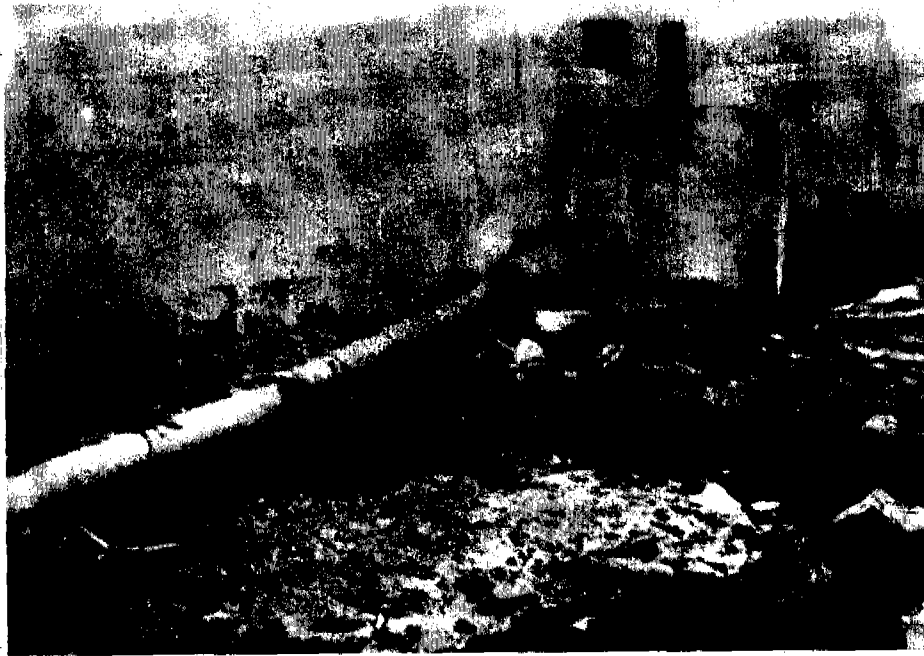
As for raising the necessary funds from the local residents of Orangi in the form of development charges, the major obstacle has been the prohibitive rates charged by the KMC or KDA planners, engineers and contractors. If a house is built on 80 or 100 sq. yds. for 15 or 20,000 rupees, and that too on an incremental basis spread over many years, then the owners of these houses find it impossible to pay 3 or 4,000 rupees per house for the development or improvement of drains, sewerage, etc.

The residents also feel that it is the duty of the local councillors or the KMC or KDA to provide these basic facilities for them. The KMC, on the other hand, being unable to recover the development charges from the residents of these low-income areas leaves things as they are. Neglect, to that extent, becomes the government's official policy, and the result is further deterioration of the sub-standard and unhygienic conditions in the lanes and in the area as whole.

Under these difficult conditions, some people have themselves made several attempts at improving their lanes including constructing elementary sewerage facilities in a few areas. They have tried to lay pipes for the disposal of water and sewerage from the lanes into the big *nallas* (natural drains). A few people who can afford the cost have even made their own septic tanks. However, given the lack of technical support many such efforts have been unsuccessful. The level of the pipes has not been properly maintained. Manholes are often not made. Or the pipes have not been laid at sufficient depth to be able to bear the weight of vehicular traffic.

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4 "Critical Review of World Bank Lyari Early Action Project Appraisal Report," by KMC/LIPT: 23 September 1976. Letter of Mr. J.H. Collier of the World Bank to Mr. Mazhar Rafi, Secretary Housing, Town Planning and Local Government, Government of Sind, dated August 9, 1976.



*Technically inadequate solutions: Attempts by people to solve their sewerage problem before OPP's assistance was available.*

It seems that despite good intentions and some investment the government authorities have not been able to bring about any substantial change in the *katchi abadis*. The main impediment is said to be lack of resources. Because of limitations mentioned earlier foreign credits cannot be implemented, and the KMC or KDA or the Government of Sind have no organizational mechanism to successfully and effectively mobilize local resources on a large scale from low-income areas. Whatever may be the reason, there seems to be two sets of rules operating, one for the affluent sections of the society who need and get all the facilities of a healthy living, and the other for the poor who have been made to live without the basic facilities of running water, sanitation, drainage system, roads, electricity, etc.

#### Search for a method

The problem was, therefore, quite clear. Given the inability of the government how does one find a method of improving the *katchi abadis*. When Dr. Akhter Hameed Khan, the Director of the Orangi Pilot Project began to explore the possibilities of finding a solution to this problem, he first thought that the government could be persuaded to pay more attention to the needs of the people of Orangi by effective lobbying. In other words, a solution within the structure of a conventional approach — development from above through contractors and government agencies — was still considered plausible. Organizing the local councillors, mobilizing the existing local organizations, in particular the All Orangi United Federation, and the publication of a quarterly paper in Urdu became part of OPP's early strategy for carrying out effective lobbying. At the same time Dr. Khan started meeting the high officials of KMC, KDA, Local Government in order to draw their attention to the plight of the people of Orangi.

But soon it was discovered that the problem is not the lack of effective lobbying but of constraints of a very different nature. First, the councillors just refused to hold meetings, saying that there was no need for it. It was more in their interest to be on their own rather than be united. They wanted favours and patronage individually not collectively. Second, the various associations and organizations in Orangi which have been ostensibly designed for lobbying have, in fact, been used by politically ambitious people for their own personal gains. Third, in meetings with the KDA or KMC officials, one would find these officials polite who would listen attentively and even show a willingness to cooperate with the project. But no concrete cooperation was ever extended.

In view of these circumstances, it became apparent that there is a bottleneck. On the one hand the KDA and KMC charges are far beyond the reach of the people of Orangi. And on the other hand, because of unknown reasons the KDA or the KMC is either not willing to or not able to reduce the cost of providing basic facilities to the common people.

Consequently, a solution had to be found without having to depend entirely on external assistance. The approach of development from above — the conventional approach — had shown to hold very little promise for solving the problems of Orangi.

The broad outline of the alternative strategy had been envisaged by Dr. Khan: That it had to be development from below in which local residents would be organized and their resources would be mobilized. By this method, the creation of effective local organization and dissemination of technical skills among local people would be the key to the improvement of Orangi. And above all, the success of the methodology would depend on a sound low-cost technology, technical competence, and professional approach of its workers which OPP has now acquired through much time and effort.

Here we shall discuss the experience of sanitation to explain how OPP has managed to make a breakthrough in a self-managed people's programme without subsidizing the actual cost of work being done. The OPP subsidy has been only in research and extension; the construction has been carried out entirely through local resources. It is this fact of working through local resources which makes the OPP a significant project. It is significant not only in terms of mobilizing local resources but also for having shown the way to an improvement strategy based on a collective and self-help approach.

### Sanitation

Given its acute and urgent need, and the fact that it gave quick and concrete results to a long outstanding problem, low cost sanitation has been one of the most effective programmes of OPP. The problem has been approached by Dr. Khan in the following manner:

There seems to have been three barriers preventing the improvement of Orangi on a self-help basis. First, there has been the psychological barrier both at the top and at the bottom. At the top the psychological barrier has been with the government departments who perhaps feel that the problem of *katchi abadis* cannot be solved with any significant results in view of the fact

that they do not have sufficient resources. Psychological barrier at the bottom refers to the attitude of some people in Orangi who still expect the KMC or the KDA to do the work for them. They also feel that in any case the work of sanitation, water supply, drainage, and so on, is beyond their own abilities and resources.

The second barrier, and connected with the first, is the cost barrier. As pointed out earlier the cost of constructing a proper sanitation system through conventional methods involving government departments, vested interests, corruption, etc., has been excessively high for the people to afford.

And the third barrier has been the technical or technological barrier. This means that where residents have been interested and motivated in constructing a sewerage system, they have lacked the technical know-how to do it competently and satisfactorily. The result has invariably led to failures sooner or later.

As a first step, the OPP has attempted to try to remove the three barriers. With regards to the sanitation programme the experiment has been (a) to persuade the residents that if they do not organize themselves to improve their living conditions, nobody will do it for them, and they will face greater hardships; (b) to try to reduce the cost of a standard sewerage system; and (c) to provide the interested residents with a low-cost technology and the technical guidance and assistance for constructing it, and to train them in its maintenance and upkeep.

The people of Orangi know that collective effort is perhaps the only effective solution to their needs. The problem, among others, is one of trust. In their past experience all such efforts at organizing them has invariably resulted in either incompetence and waste or in their being cheated out of their money. Accountability has been difficult and corruption rampant even among fellow residents.

In order to eliminate the problem of mistrust, Dr. Khan started with the lane as the unit of organization. On an average there are between 20 to 30 houses in each lane. The heads of these households get together, discuss the problem of sewerage and the need to rectify it. When they all agree that work on sewerage should be done and that they are willing to contribute their share of the cost, then they make a formal application to the OPP office. The OPP office sends its technical team which surveys the lane and gives the design and cost estimate. Then the residents collect and give the money to elected lane managers. The managers then buy the material and organize the work. Full account of expenses is maintained and a copy is submitted to the OPP office.

By making lane as the unit of organization as opposed to *mohallas* (neighbourhood) or sectors, the problem of trust has been solved, thus making it possible to organize people within a small and therefore effective structure of collective action.

The task of removing the psychological barrier became possible by reducing the cost of construction. By eliminating kickbacks and profiteering the cost has been brought down to less than a third of prevalent rates. In some cases the cost has been reduced to as low as Rs. 12.60 per rft ( report

13, table II) as compared to the prevalent rate of Rs. 45 per rft of drainage line.<sup>5</sup>

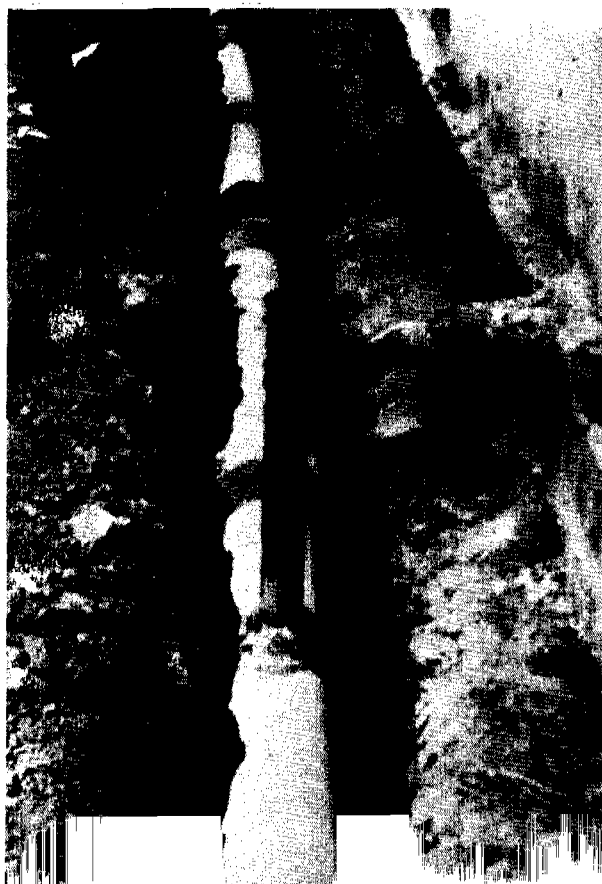
This drastic reduction has been possible by improving the design of the manholes and septic tanks. By changing the design of the manholes from block construction to cast in-situ the need for expensive skilled masons has also been eliminated. Steel shutterings are provided to the residents who use it to construct the manholes themselves under OPP supervision if needed.

It is fully realized that the reduction in cost should at no stage compromise the quality of work. By improving the design of the manhole (by eliminating waste in material, simplifying construction, etc.) and also by simplifying the system by putting a 'T' in a *haudi* (interceptor chamber) rather than building an expensive waffle chamber, it has been possible to further reduce the cost (see appendix III). It took many months of experimentation with various designs of *haudis* and manholes before a satisfactory solution was found.

The task of extension work involved considerable time and effort. After having arrived at a successful design of *haudi* with a T-pipe connection, we found that the residents were often not following the OPP instructions. When the technical staff surveyed the lanes constructed with OPP assistance it was found that a number of houses had given direct connection with the main line (see 10th progress report, item 6). They had either not built the *haudis* with T-pipe connection or in some places misunderstood the instruction and made direct connections with an oversized T-pipe as shown in the picture. This naturally threatened with choking and failure of the system.

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5 Lowest figure quoted by Irani & Co., Constructors and Consultants (Karachi) for a 9" dia RCC pipe and for 2' x 2' x 3' manholes to be placed at every 30 feet.



*When technical instructions are misunderstood, people make mistakes. The picture shows a direct connection made to the main line through an oversized T-pipe.*

Consequently OPP had to instruct all its managers and technical staff to make sure that no future direct connections were made and those made were rectified. Our extension method — that is, how to deliver a design for successful implementation by the people — had to be improved. Plastic models to scale have been made to demonstrate visually how the system works, from the commode (toilet) to the *haudi* to the main line.

### A people-oriented developmental strategy

OPP is aware that it cannot immediately build a fully integrated and complete sewerage system. The purpose is to organize the people to learn how to do it themselves. Deviance and error of judgment is part of the process of developing local organizations and local skills and expertise which will eventually eliminate the need to depend on the extravagantly expensive services of outside institutions and professionals.

The demonstrative effect of this self-help programme has been significant. When the programme first started in September 1981 it took three months for Dr. Khan and his social motivators to convince the residents of one lane only that the proposal was not another political gimmickery, that it would work and work well. Today the demand from lane residents keep pouring in and the OPP office is unable to keep up with the requests.

If social mobilization is the main springboard of development then the distinct roles of social mobilization and technical expertise must be fully recognized. Otherwise one is likely to make the error of measuring an unconventional approach through narrowly “professional” yardsticks. This is what seems to have been at the root of the conflict between the OPP and the UN Centre for Human Settlement (UNCHS or Habitat). Mr. Nicholas Houghton sent by the UNCHS to assist the OPP felt that the approach of OPP and that of UNCHS are “irreconcilable.....One open ended, exploratory and evolutionary with emphasis on sociological particularities . . . the other, target oriented, systematic, with a professional and technical focus . . .” (see appendix II).

This conflict has been unnecessary and unfortunate because the UNCHS, “uniquely equipped to provide specialized support for undertaking large-scale projects in low-income urban areas”, became an adversary of a project it had come to assist. It insisted that it would assist only on its own terms or not assist at all.<sup>6</sup>

As a result of this conflict with the UNCHS, OPP suddenly finds itself faced with a unique challenge: Must it depend on the foreign agencies like the UNCHS and their professionals and experts to provide an effective and viable strategy for the improvement of low-income areas, or can the work be done just as well or better by Pakistani technical and social science experts who are competent and who have an interest and commitment to the people of low-income groups. This challenge has implications not only for the OPP but for low-income people in virtually every part of the third world.

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<sup>6</sup> The project has now been bifurcated, one part remaining with the OPP and the other going to BCCI—Community Development Programme of which Mr. N. Houghton is the Chief Technical Advisor.

## Answering the critics

There have been a number of criticisms raised against the OPP approach. The most common of these is the criticism that since the main drains are not being built by the KMC, the sewerage system as being presently constructed in the OPP areas simply shifts the problem of sewage disposal from the lanes to the open *nallas*. In such a situation it has often been suggested that leach-pits<sup>7</sup> may be a better solution to the problem of disposing human excreta because they seal the excreta rather than removing it to the open *nallas*.

There are two problems with this. First, proper leach-pits are considerably more expensive and difficult to maintain. Besides, leach-pits at best solve the problem of human excreta. The waste water from the houses still flows into the lanes creating pools of dirty and stagnant water and giving rise to bacterial infections and health hazards.

The second point is that leach-pits would have been a desirable option if one were to assume that the main drains would not be developed for many years to come. The fact of the matter is that lane organizations in Orangi have already improved their lanes through collective efforts and are now bringing pressure on councillors and government departments to develop the main drains so that dirty water from the lanes does not flow in the open. The councillors are receptive to the needs of the people and with sufficient organized pressure government assistance can be successfully mobilized.<sup>8</sup>

The point that has to be appreciated in order to understand the approach of OPP is that neither the OPP has the resources to provide for a final and completely integrated sewerage system in the immediate future, nor can the KMC provide it to the people of Orangi given its own financial limitations. An integrated work plan is undoubtedly most desirable and there can be no debate on the issue. But now since this is not possible, the only viable option left is to build the system incrementally, together with local and government resources. The first step, under the circumstances, will have to be the mobilization of local resources which would then bring about both organization and pressure for the mobilization of government funds. OPP's approach is only a first step in the transition to a system in which eventually sewage will not be left in the open *nallas* but carried away into the sea or to treatment plants. The immediate advantages, however, must be appreciated. For one thing the cost is considerably less than building a proper (15'-20' deep) leach-pit. More importantly the underground

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7 Leach-pits consist of two pits generally 3' in diameter and of a depth of not less than 12', connected to a latrine by a covered channel or pipe. The pits can be covered by a stone or timber cover. The connection of the second pit remains disconnected with the latrine. After the first pit is full, it is disconnected and the second pit is connected with the latrine. The first pit meanwhile dries up and the excreta becomes non-pathogenic. It can then be dug up and used as manure. The cycle is repeated.

8 Mr. Syed Shamim Ahmed, councillor of circle 98 had requested the OPP to survey his entire circle and prepare plans and estimates for its big drains, which he could then take to the KMC for implementation. After three months of hard work the first draft was prepared in May 1983 but just then the UNCHS got circle 98 under the bifurcation agreement. However we have similar requests from two more councillors, Mr. Mohammad Ali Siddiqui and Dr. Mur-taza whose areas are in the OPP jurisdiction.



sewerage system in the lanes removes human excreta as well as all waste water from the houses and lanes to the *nallas*. This has been a major step forward.

The next step, of course, will be that people bring pressure on the government to construct the main drains. As mentioned earlier the response from some councillors to build the main drains has been encouraging. There are good reasons to assume that after the next local bodies' elections before the end of the year this matter will receive full attention.

The second criticism points to the fact that not having an overall or integrated plan and working through lane as the unit will lead to difficulties at a later stage. This may be correct to some extent but the point is that this is being done not as a matter of choice or as a matter of better technical alternative, but simply because it is a system which is sound and under the circumstances the only viable alternative. Apart from that, in Orangi there are natural slopes in the main *nallas* which will cause no impediment in the flow of sewage now or later. The main disadvantage of not having an integrated plan is the fact that there may be some duplication and extra expense which could have been economized with an integrated plan. But the choices for the people of Orangi is either to wait indefinitely for an integrated plan or to get the work started on a lane basis now with a design which has shown to be technically sound in more than 300 lanes which have already been improved.

Another criticism with regards to technical details deals with the size of pipes and the need for manholes. It is correct that the function of *haudis* is to intercept the solid matter and allow only sewage water to flow into the lines. That being the case, some foreign experts pointed out that then one need not use a 6" or 9" RCC pipe, and instead use a 3" pvc pipe to reduce the cost even further. By the same token since only water flows in the sewage lines, there is no need to build manholes at all. Elimination of manholes and replacement of RCC pipes with inexpensive 3" pvc pipes would bring the cost down considerably.

When Mr. Arif Hasan discussed this proposal with the residents of the lanes it was told to him that very soon Orangi will have a regular supply of water from the Hub. Once that happens, as already some have started to have direct water connections to their houses, then to change the no-man-hole pvc-pipe system to a proper flushing system would entail digging up the lines, laying new RCC pipes, and building manholes which would be both costly and inconvenient. It is better, they insisted, that they pay extra now and have a system which can be converted to a proper flushing system without any extra cost or inconvenience. It made sense, and the OPP recommended to continue the construction of proper manholes and use of 6" and 9" RCC pipes.

Another criticism is the size of the *haudi*. It has been pointed out that the *haudis* are small and therefore will fill up within 3-4 months. First of all, the *haudis* which were built 8 months ago have yet to be filled up. And secondly, the constraint on size has been the unwillingness or inability on the part of the residents to spend more than a certain amount in the construction of these *haudis*. Besides, as mentioned earlier, the work that OPP is doing now is by way of a transition towards the construction of a full-fledged flushing system in which the need for *haudis* will be altogether elimi-

nated. Water has started coming into Orangi and when the change takes place from the present T-pipe/*haudi* arrangement to a proper flushing system then the *haudis* would have become superfluous.

### **Concluding remarks**

The Orangi Pilot Project is by definition an experimental exercise, concerned and executed in response to the inability of official agencies to improve the lot of the low-income people. The substandard condition of any *katchi abadi* is an expression of the failure of conventional institutions and approaches, and therefore the OPP experiment has been to find viable alternatives.

It would not have been possible to make people understand the efficacy of OPP's self-help and self-financed programme had it not been for the community involvement and leadership abilities of OPP's social organizers. They are all themselves residents of Orangi who understand the problems firsthand and feel committed to its improvement and well-being. Dr. Akhter Hameed Khan's life-long commitment to non-elitist developmental strategy has been the guiding principle of the project. He has the vision and courage to challenge conventional approaches and has unwavering faith in the ingenuity of national expertise and local activists.

The breakthrough in the technology of low-cost sanitation has been possible largely due to the efforts and ingenuity of Mr. Arif Hasan, consulting architect and a Visiting Professor at the Dawood Engineering College, Karachi who works with the OPP as its chief technical consultant. He has been assisted by architect Parween Rahman, OPP's Joint Director (Technical).

The search for alternatives for the improvement of *katchi abadis* is a difficult task. It needs competence and patience; it needs commitment and dedication; it needs vision, ingenuity and experimentation. The end result, we hope, will be success in evolving an effective and viable strategy for improving low-income areas which have been traditionally neglected.

**Sami Mustafa**

Consultant, research and evaluation

# 1st progress report (1st April 1980)

## 1 Proposal for a project

Last January, Mr. I. H. Burney, Director, ICIC invited me to undertake welfare work in Orangi. Afterwards Mr. Agha Hasan Abedi, President, BCCI, on 15th February and again on 3rd March further discussed the proposal. For the last meeting I wrote a short note summarizing some ideas, which were accepted by Mr. Abedi and Mr. Burney. (Appendix I)

## 2 Orangi Pilot Project (OPP)

On 2nd April 1980, I received a letter from Mr. Burney appointing me as Director for starting the Orangi Pilot Project along the lines suggested in the note.

## 3 Collaboration with NIPA Karachi

At the same time Mr. I. A. Khan, Director, National Institute of Public Administration (NIPA) agreed to locate the research office of the OPP at the NIPA, and provide one room and part-time services of research assistants. His generosity saved the OPP from many administrative vexations and expenditures and enabled it to go to work at once. And when on 5th April the BCCI allocated an old jeep, frequent visits to Orangi also became feasible.

## 4 Field office

The collaboration with NIPA is intended, for the sake of research and documentation, to be a long term arrangement. It may prove to be mutually beneficial in several ways. However, OPP will also maintain as soon as possible a field office in Orangi.

## 5 Education of the Director

The first task before me as director was to educate myself. My ignorance of Orangi was total. I have lived only a short while in Karachi and never seen Orangi. NIPA's Director assigned a bright young

research assistant, Mumtaz Ahmad Khan, to be my companion and guide. Besides an old friend, Mr. Abdur Rauf Khan, Reader, Geography Department, Karachi University, consented to be my teacher. He procured maps and aerial photographs and explained on the maps and in the course of several trips, on the ground, the geology and geography of Orangi. A great deal more remains to be learnt, and is being learnt gradually from KDA planners and Orangi residents.

## 6 Problems and efforts

As indicated in the note (appendix I), from the organizational point of view, the social problems and the efforts to solve them were far more significant than the geography and the envisaged town plans. Therefore the former became the focus of our attention. We began to observe the institutions and associations, thriving or otherwise, in Orangi. And as their quality depends on their promoters we observed more closely the promoters themselves.

## 7 First contacts

Of course three weeks is too short a period to jump to conclusions. As yet we have made only a few contacts which have to be further extended and strengthened. Upto 30th April we visited Orangi twelve times, in the day as well as in the evening. As the activities are at home mostly after sunset, it seems that the working hour of OPP will have to be stretched into the night.

## 8 Manifold problems

The problems in Orangi are manifold and difficult, some almost intractable. Evidently the fundamental problem is its accelerating expansion. A flood of immigrants from all over Pakistan is pouring into Orangi. Within a few years, while KDA was wrestling with the enormous task of developing a township of 1300 acres, the human flood has already covered another 3000 acres or more, and the high tide mark

has not yet been reached for what are popularly called *katchi abadis*, but which the town planners regard with horror as 'slums' or squatter colonies. The problem is compounded by speculation in land and a fierce competition for its possession. The energy for the mushrooming settlements is supplied by private enterprise, resourceful and tenacious as well as selfish and greedy. There is a distressing neglect of common facilities. The peripheral areas constantly complain about the scarcity of water, roads, sewerage, transport, schools and clinics.

## 9 Many institutional efforts

While the problems are too obvious, further observation reveals that remedial efforts, institutional or individual are no less impressive. First, the speed with which the habitations are spreading over waterless lands and barren hills is astonishing. Secondly, everywhere institutions and associations, official and non-official are busily engaged, adequately or inadequately. Foremost among these, of course, are the departments of KDA, planning settlements, distributing water, building roads and drains. Next in importance, specially on account of the recent emphasis on local government, are the councillors, who just now are the pivots of a frantic whirl. Since 1971 the department of Social Welfare has been promoting the formation of voluntary groups, seven of which are registered. Besides there are other philanthropic agencies, rich and poor, large and small, running schools or hospitals or looking after other common needs or emergencies. One remarkable indigenous example is the National Foundation of the Benarasi Cloth Weavers and Traders. Another striking example is the All Orangi Federation which is reported to have thirty-three units in different sectors of Orangi.

## 10 Many activists

In the short period of three weeks we have come across many activists whose experience, energy and public spirit is quite significant. Among these are some councillors, some voluntary group leaders and organizers of the Orangi Federation. Although our contacts as yet are too short and narrow, and must be

extended and deepened, our first impressions are by no means discouraging. Apparently these activists instead of being submerged by their problems are willing to face them with determination. Their attitude is not of passive resignation or cynicism, but of confidence and hope. They generally display not bitterness but tolerance, and their dominant desire is for cooperation not confrontation.

## 11 Selection for further study

We have selected for further study, during the next month, the functioning of councillors and the Orangi Federation. In order to acquire a correct perspective we will also meet the officials of local government, KDA and KMC. It may be possible after some time to be helpful to the councillors and Federation organizers by supplying specialist information, and arranging a regular forum for conferences and meetings.

## 12 Small experiments

We will also explore the possibility of conducting one or two small experiments in connection with the acute problem of water distribution in the remote unplanned settlements. One experiment might be cooperative ownership of a tanker by a small locality to prevent the abuses practiced by private carriers. Another experiment may consist in discovering sources of sweet water in the sandstone ridge passing through Orangi, and developing a method of decentralised self distribution to a limited locality. Much more investigation is required concerning the several factors of these experiments.

## 13 Purpose of this report

The purpose of this report is not publicity as obviously there is nothing to publicize. Its main purpose is continuous recording of thoughts and actions, their careful documentation. It will be circulated to a few interested observers in order to keep them informed of the project's progress, and to invite their comments.

# 2nd progress report (May-June 1980)

## 1 The first report

The first progress report of the Orangi Pilot Project was written at the end of April 1980. It gave the background of the project and described the early impressions gathered and contacts made in Orangi. It pointed out that the project's attention would be focussed not so much on individual problems as on the prevalent organizational efforts and activists of Orangi town. It acknowledged our initial ignorance and outlined the method of learning by prolonged association. No quick results were promised and fanfare was excluded. Institution building was predicted to be a slow, arduous process.

## 2 The second report

This second report summarizes what was done during the last two months, May and June. Unfortunately, as the jeep was being overhauled, touring in Orangi had to be suspended and could not be resumed till the 20th of May. However, the intervening period was utilized for contacting some important agencies responsible for the improvement of Orangi township: the Department of Local Self-Government, the KDA, the KMC, the Directorate of Social Welfare and Directorate of Katchi Abadis. Much information as well as encouragement was received from the officials who granted these interviews, specially the Secretary LSG, the Director General KDA and the Director LSG, Karachi. Their kindness is deeply appreciated by the project. After 20th May, to make amends, the Director OPP visited Orangi 23 times, mostly at noon, and often in the evening.

## 3 Three decisions

By the end of May, i.e. after two months of simple observation the Director felt that he could now take three decisions :

- (a) support the All Orangi United Federation;
- (b) engage three whole-time workers for OPP; and
- (c) establish a field office in Orangi.

By nature of circumstances the decisions were inter-linked.

## 4 Support of the All Orangi United Federation

After a month of observation and after numerous interviews, the Orangi Federation seemed, from the project's point of view, eminently suitable for promotional support. In the first place it was an old organization which was started entirely by local initiative in response to deeply felt needs, and it has continued to function as a living, though not very powerful, institution since 1972. Secondly, the Federation has more than thirty member organizations spread out in different quarters of the township, and engaged, some weakly and others strongly, in some kind of collective endeavour. Thirdly, the Federation and its members have gained nearly a decade's experience of lobbying for civic demands with departments and authorities. Further, their experience is not confined merely to demanding and petitioning. On many occasions they provided valuable community cooperation and assistance to the official agencies. Finally, the Federation possesses a core of seasoned workers, whose public spirit and talent has been thoroughly tested over many years.

## 5 Urdu pamphlet on Orangi Federation

On the basis of investigation a little pamphlet has been written on the Orangi Federation. It will serve as a bench-mark.

## 6 Field office and workers for OPP

When the decision was taken to begin OPP's action involvement by first supporting the Orangi Federation, it became easier to implement the other two decisions, viz., establishment of the field office and the appointment of three whole-time workers. In the house hired for the Orangi Federation, the first room was turned into a forum for the Orangi councillors, the second for the Federation, while the third

served as an office for the OPP. Thus the observation and documentation of institutional growth can be carried out effectively. The OPP also engaged two veteran workers of the Federation as advisors. For the present they will devote most of their time to expanding and improving the Federation's activities. Besides the OPP has appointed from 1st July a whole-time secretary in order to compile systematic records of meetings, interviews and programme and prepare accurate reports. The OPP's symbiotic relationship with the Federation will be retained only as long as it is mutually useful. Of course it is not designed to be permanent.

## 7 Details of the support

As indicated above, the Orangi Federation has been provided with office accommodation and the services of three whole-time workers of OPP. The financial cost is as follows:

| <b>ANNUAL EXPENDITURE</b>               |               |
|---|---------------|
|   | Rs.           |
| (a) Rent                                | 6,000         |
| (b) Caretaker                           | 6,000         |
| (c) Maintenance                         | 6,000         |
| (d) Contingencies                       | 4,000         |
| <b>Total</b>                            | <b>22,000</b> |
| Purchase of furniture and equipment     | 10,000        |
| Advance payment for possession of house | 25,000        |

The OPP has given this amount (Rs. 57,000) as a grant to the Orangi Federation after consultations with the Federation's executive committee. The Federation will keep proper accounts for audit and publication. The whole-time workers have been placed on the payroll of the OPP, whose accounts also will be audited and open to scrutiny.

## 8 Progress during June

The Orangi office was inaugurated on 10th June.

About fifty representatives of member organizations gathered together. The Director OPP gave an introductory speech and answered several questions. From the very next day the office building became a thriving centre, frequented by old workers, curious visitors disputants and needy persons. With a definite location and whole-time workers it became easier to renew old contacts and enlarge the scope of the Federation's activities.

## 9 Consolidation

In the first report a tentative suggestion was made that one or two experimental efforts may be started in connection with the decentralized supply of water. Although during the month of June several springs and wells were visited and discussions were held with the neighbouring residents, it appeared premature to make any investments. Obviously more discussion and investigation was required. In the meanwhile it is preferable to concentrate on the strengthening of the Federation in the following ways:

- (a) To publish a monthly or bi-monthly report (in Urdu) for wide circulation.
- (b) To hold regular meetings for review and suggestions.
- (c) To call a special convention of veteran workers for formulating future programmes.
- (d) To expand and intensify the work of member units.
- (e) To regularize and improve the coordination with official and unofficial agencies as well as community cooperation in their work.

## 10 An example

A good example was presented by the Federation in June when it helped Mr. Wasif of the BCCI to secure quick possession of land for the *masjid* and *mad-rassah* sponsored by the Darwesh Trust. Within a few days construction work could be started, and when some interested parties tried to misguide the people, the old workers of the Federation came forward to explain the true situation.

# 3rd progress report (July - August 1980)

## 1 Highlights

The progress of OPP from its inception in April 1980 till the end of June has been outlined in two previous reports. The highlights of July and August are given below :

- (a) Work of the Orangi Federation
- (b) Emerging functional pattern
- (c) Research and documentation
- (d) Core workers of OPP
- (e) Tentative plan and budget estimates

## 2 Work of Orangi Federation

During the last two months the project's main task was to promote the Orangi Federation. Another Urdu report, second in succession, published for circulation in Orangi, describes the Federation's work in some detail. It would be tedious to describe everything again in English. However, the main points can be mentioned briefly.

- (a) The Federation was registered as a Trust on 26th July 1980.
- (b) Its office received numerous visits from councillors, workers, disputants, complainants and the curious.
- (c) The Federation, as previously, did a good deal of lobbying, forwarded many complaints and made several representations.
- (d) It also settled several disputes and held several meetings and literary and social get-togethers.
- (e) The Federation tried to strengthen *mohalla* organizations. Although the effort slackened during Ramzan it would be resumed with

vigour. Evidently *mohalla* organizations are going to be the real base of the Federation.

- (f) The first steps were taken for regular coordination with KDA and the District Health Office. More follow-up remains to be done in respect of KDA. But the collaboration with the DHO has resulted in very promising cooperative action for control of epidemic intestinal disorders. The Federation has persuaded the Orangi Doctors' Association to undertake preventive inoculation as well as public health education. Besides workers of the Federation have distributed water purifying tablets to several hundred households.
- (g) Contact has also been made with other agencies, e.g., the UNICEF for guidance in construction of sanitary latrines and child care, and the Japanese consul for display of educational films.
- (h) Some experts have given useful suggestions e.g., standard designs for houses, incinerators for garbage disposal, cheap home-made water filters, and solar stills for distilling saline water.
- (i) The Federation is negotiating with Student Unions, and Association of Orangi Imams.

## 3 Emerging functional pattern

After three months (June, July, August) a functional pattern for the Federation seems to be emerging. As yet its main features are :

- (a) To serve as forum and lobby for the residents of Orangi.
- (b) To promote collective cooperation and associations.
- (c) To establish regular coordination with offic-

ial and non-official agencies.

- (d) To collect and disseminate educative information.
- (e) To arrange appropriate training for workers.
- (f) To introduce useful innovations suggested by experts.

#### 4 Formation of research unit

Besides advancing the Federation's work, another concern of the OPP was to build up the capacity for social research and documentation. For this purpose, Mr. Fakhru Huda Siddiqui, who has a first class Masters degree in Social Work, has been appointed as Research Secretary. Moreover, the Vice Chancellor of Karachi University is being requested to permit Mr. Omar Laeeque Azam, Lecturer, Social Work Department, to serve as a consultant to the OPP. Both Mr. Azam and his student, Mr. Siddiqui, possess several years' experience of social work in Orangi and other *katchi abadis*. The first assignment of the research team is to document the many excellent projects completed through indigenous cooperative action. These projects can very well serve as models for less organized *mohallas*. Our Orangi case studies will have educative value for the Orangi *mohallas*. Besides these studies may also provide insights concerning the sociology, the technology and the economics of indigenous, self-managed, self-financed cooperative development efforts. Perhaps such insights may be helpful to

our public planners.

#### 5 Core workers of OPP

There are now, including myself, six core workers of the OPP. Of these, three are engaged exclusively in the activities of the Federation, and the other three in research and documentation. We feel the need for a whole-time engineer to prepare and guide plans for cooperative sanitation and cooperative house-building. Moreover, there is much need for a lady organizer to promote women's programmes. Dr. Tariq Siddiqui, Addl. Secretary, Women's Division, Government of Pakistan indicated his willingness to finance women's programmes in Orangi. But we require a little more time for consolidating our position before inviting the engineer and lady organizer to join us.

#### 6 Tentative annual plan and budget

Having completed five months of observation and three months of participation, we are now ready to propose a tentative annual plan and budget.

But in order to do it in an intelligent and realistic manner, we must first have an exchange of views with the sponsors, the directors of ICIC. They must, therefore, visit the project, see Orangi with their own eyes, hold talks with the Federation's and OPP's workers, and let us know their frank and firm opinions. Then we will proceed accordingly.



# 4th progress report (September - October 1982)

## 1 Visit by ICIC directors

On 6th October Mr. Burney and Mr. Pirbhai reviewed the progress of our organizational research. The Director of OPP gave them a financial statement, a provisional annual budget estimate, an outline of future pattern of work, and a description of current activities. Next day they went to Orangi, talked with the Federation's workers, saw examples of improved and unimproved sewerage, house-building, a newly completed mosque well, met some *imams*, and at the end drove through some *katchi abadis*, and a metroville. After two days of discussions Mr. Burney and Mr. Pirbhai indicated approval of the project's approach, the financial statement and the provisional budget estimates.

## 2 Financial statement

|                                   |                   |
|-----------------------------------|-------------------|
| Receipts from ICIC                | Rs. 494,220       |
| Expenditures                      | Rs. 192,646       |
| <b>I Capital expenses</b>         | <b>Rs. 92,500</b> |
| (a) OPP                           | Rs. 37,400        |
| 4 motor cycles                    | Rs. 36,500        |
| 1 cycle                           | Rs. 900           |
| (b) Orangi Fed.                   | Rs. 55,100        |
| Advance for office                | Rs. 25,000        |
| Telephone                         | Rs. 20,100        |
| Furniture                         | Rs. 10,000        |
| <b>II Staff and contingencies</b> | <b>Rs. 75,146</b> |
| (a) OPP upto December 1980        | Rs. 36,146        |
| 2 organizers                      | Rs. 18,000        |
| 1 secretary                       | Rs. 9,300         |
| 3 consultants                     | Rs. 8,000         |
| Contingencies                     | Rs. 846           |
| (b) O. Fed. upto June 1981        | Rs. 39,000        |
| Secretary                         | Rs. 8,000         |

|               |            |
|---------------|------------|
| Typist        | Rs. 4,000  |
| Contingencies | Rs. 27,000 |

|                                 |            |
|---------------------------------|------------|
| III Publications upto June 1981 | Rs. 15,000 |
|---------------------------------|------------|

|                            |            |
|----------------------------|------------|
| IV Advance for exp. models | Rs. 10,000 |
|----------------------------|------------|

|                 |             |
|-----------------|-------------|
| Balance in bank | Rs. 301,574 |
|-----------------|-------------|

## 3 Four objectives of OPP

At the end of six months the programme's objectives can now be defined clearly. The first objective is to strengthen local organizations and institutions. Providing social and technical advice for that purpose is the second objective. At present the first objective is being pursued mainly through supporting the Orangi Federation, and the second by placing social organizers and technical consultants at their disposal. The third objective is the continuous training of local workers and the fourth the demonstration of experimental models of useful appliances.

## 4 Proposed annual budget

The expenditures that have been incurred have prepared the ground, to a certain extent, for fulfilling the above objectives. The Orangi Federation and its office are serving as a good base of operations. Three social organizers and three consultants are located here to impart social and technical advice. Series of educative booklets are being written, and soon some training programmes will be undertaken. Experimental models of domestic water filters, solar stills, incinerators, etc., are under construction. The following annual budget outline was proposed to Mr. Burney and Mr. Pirbhai :

|   |             |
|---|-------------|
| <b>Organizational and advisory services</b> |             |
| a. OPP                                      | Rs. 100,000 |
| b. Orangi Federation                        | Rs. 100,000 |
| Training and publications                   | Rs. 150,000 |
| Experimental demonstrations                 | Rs. 150,000 |

## 5 Cost of development work

At this stage the OPP does not intend to subsidize any constructions or buildings or services. It is confining itself to increasing, as much as it can, organizational and technical skills of Orangi activists. One reason for this self-limiting decision is the fact that the colossal task of subsidizing construction or services is far beyond the project's capacity. But there is another good reason for exclusive attention to organization and training : viz., the fact that these main springs of development have been generally neglected. We hope that with the growth of organizational and technical skills, abundant resources will become accessible which are inaccessible at present.

## 6 Survey of activities

We will now present a brief survey of two months' activities. While the Federation spent much time on forwarding demands and complaints and settling disputes, OPP concentrated on promotion of organization and training. Uptil September three social organizers and one social work consultant were already engaged. In October part-time services of two engineers were obtained as consultants. Thus not only social but also technical advice is available for Orangi mohallas.

## 7 Work of engineering consultants

Mr. Buland Akhter, a civil engineer, carefully studied the construction of five private small houses in Millatabad and wrote a booklet which points out ways of reducing costs and improving efficiency.

In collaboration with Mr. Fakhru Huda and Mr. Laeeq Azam, three case studies were completed of lanes where the residents, on their own initiative, have built septic tank latrines inside their houses, and laid underground gutter pipe lines in the lanes. Two booklets have been written in Urdu, one describes the method of work in these lanes, and the other the design of septic latrines and sewerage pipe lines.

## 8 Experimental models

(a) The model of a cheap domestic water filter which can be made quite easily, has been placed for demonstration in the Federation's office. It has excited interest, and a few residents are reported to have installed it in their homes, while many more are planning to do so.

(b) A solar still for distilling brackish well water has been fabricated in an Orangi workshop. It's operation is being tried on the office roof. As yet the output is too little, and some improvements are being considered to make it more practical.

(c) Another filter for softening hard water chemically is being made under the direction of Professor Salam of Karachi University.

(d) An incinerator is being erected in sector 5 to find out whether with its use garbage can be disposed off more effectively.

## 9 Educative booklets

As a preparation for the task of enhancing organizational and technical skills and starting training conferences, educative booklets are being compiled and printed (in Urdu).

The following booklets are in the press :

- (a) Case study of construction of five private houses with instructions on reducing costs.
- (b) Summary and conclusions of three case studies of construction of underground RCC gutter lines and septic latrines.
- (c) Design of gutter lines.
- (d) Construction of domestic water filter.
- (e) Construction of garbage incinerator.
- (f) First aid instructions.

## 10 Four point programme of imams

It is reported that there are more than one hundred and fifty mosques in Orangi township. There also exists an association of *imams*. Nearly thirty *imams* have joined the association and others are willing to join. After several meetings between the *imam* association and the Orangi Federation, the following four point programme has been adopted :

- (a) The Federation will arrange teachers training for *imams* so that they can teach competently the syllabus of primary class one and two along with the Quran. A trained teacher *imam* can render an important service to the community, specially in the *katchi abadis*.
- (b) The Federation with the help of the Doctors' Association will also arrange first aid training for *imams*, so that in addition to their present practice of spiritual healing, they may also learn some elementary physical healing.
- (c) A small library has been set up in the *imam* association's office from which the *imams* will borrow books for their own reading and for reading to groups of adult *namazis*.

(d) With the help of two generous industrialists, Mr. Gulzar Ahmad and Mr. Aftab Ahmad, the Federation is constructing wells in six mosques for the convenience of the *namazis* in the *katchi abadis*.

#### 11 EPI training

After two months delay the health officers invited the first batch of Orangi trainees on 29 October for the Extended Preventive Immunization programme (EPI). It consisted of only two volunteers, but the next batches will be more numerous. It is hoped

that in a few months large numbers of EPI trained volunteers will spread the programme in many sectors of Orangi town.

#### 12 The Orangi Gazette

From November the Federation is going to publish a bimonthly newspaper called the Orangi Gazette. Its purpose will be informative as well as educative. It will highlight the news and needs of the town. It will provide a forum for fruitful discussions, and also a medium for the poets and writers of Orangi.

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# 5th progress report (April 1981)

## 1 Delay

The fourth report on the progress of the Orangi Pilot Project was sent out last November. The fifth report should have been written in January, but early in that month my right eye was injured and a surgical operation kept me in hospital for ten days. Although the surgery was successful I was advised to avoid physical strain for several weeks. Consequently I could not visit the project or write reports for two months. And even in March my Orangi visits were not as frequent as before. However now that I have regained my health, I am hoping to carry a normal work load. Of course, I as well as my sponsors should be aware of the hazards of old age.

## 2 Record of progress

During the months in which I was withdrawn the project continued to proceed at its own pace. In fact my forced withdrawal was a good test of its non-dependence on one old man. The January and March issues of the Orangi Gazette describe how the workers had been engaged in lobbying, organization and training. Now that this bi-monthly newspaper is recording the Orangi activities in ample details, it seems redundant to describe them again in a progress report. Instead the readers are referred to copies of the Orangi Gazette which are being widely circulated. In future the progress report in English will be compiled on a quarterly basis and will contain only broad conclusions, questions of policy, and financial statements.

## 3 Conclusions

On 31st March 1981 the first year of the OPP came to an end. It is therefore appropriate to give the main conclusions arrived at during this initial period of search and investigation. In view of our acknowledged initial ignorance of the area and its residents, we were not in a hurry to introduce big programmes. Gradually, after several months, the objectives were clearly defined. These were as follows :

- (a) To promote and strengthen local organizations and institutions.
- (b) To provide social and technical advice for that purpose.
- (c) To provide useful training for workers.
- (d) To arrange some experimental demonstrations.

Some progress in this direction was made by strengthening the Orangi Federation and the Orangi Imams' Association. Contacts were also made with the Orangi Councillors' Association, the Orangi Doctors' Association, and several *mohalla* and youth organizations. Some ground has been prepared for institutional growth in the first year. More perceptible results may be seen in the second year.

## 4 Core workers

The main spring of a programme of organizational development is a central group of workers, not officers and clerks, but organizers and consultants. To collect such a group is a difficult and uncertain task. In our first year a small core has been gradually assembled. Their mettle will be tested in the second year and their number may be increased. At present they are as follows :

Research Secretary of the OPP, an MA in Social Work.

Two whole-time organizers for the Orangi Federation, both veteran local workers.

An editor for the Orangi Gazette, a veteran local journalist.

A whole-time organizer for the *Imams'* Anjuman, a veteran local *imam*.

Three part-time consultants.

- (a) An experienced engineer
- (b) A lecturer in Social Work
- (c) An experienced cooperative manager

## 5 The Orangi Gazette

A very promising development in support of organizational and educational efforts, since last November has been the publication of a bi-monthly newspaper, the Orangi Gazette. It has focussed attention not only on urgent problems but also on the scattered attempts at their solution. It is attracting more and more readers. In the coming year it is to be seen whether it remains mainly a vehicle of grievances and demands, or whether it also becomes an instrument of constructive thought and action. In any case, the Orangi Gazette is, and will remain, a faithful record of the progress or regress of the project in Orangi town.

## 6 First year's work

While the readers are referred for details to the four previous reports and the three issues of the Orangi Gazette, we will just enumerate what has been done in the first year in respect of organization, training and demonstration.

### I Organization

- (a) Establishment of the OPP office.
- (b) And the office of the Orangi Federation.
- (c) Appointment of organizers and consultants.
- (d) Expansion of the Federation's activities.
- (e) Expansion of the activities of the Orangi Imams' Anjuman.
- (f) Expansion of the activities of the Orangi Doctors' Association.
- (g) Contacts with Orangi Councillors' Association.
- (h) Contacts with several *mohalla* organizations.

- (i) Contact with youth associations.

### II Training

- (a) Of a few health workers.
- (b) Of *imams*.

### III Educative publications

- (a) Pamphlets on construction of septic latrines, gutter lines, domestic filters, garbage incinerators.
- (b) On first aid and prevention of some epidemic diseases.
- (c) A bi-monthly newspaper, the Orangi Gazette.

### IV Experimental demonstrations

- (a) Digging of 13 wells for supplementary water supply.
- (b) Construction of a model garbage incinerator.
- (c) Construction of a domestic filter.
- (d) A biogas plant.
- (e) Attempts (unsuccessful as yet) to make a solar still for distilling brackish well water.

## 7 Need for consolidation

Whatever has been done in the first year should be regarded merely as a commencement. It is too early to make a real evaluation. That would be possible later on the basis of the elaborate records that are being maintained. However, even at this stage it can be said that there are reasons both for some satisfaction and also for much disappointment. Most of the prevalent attitudes are negative and it would be unrealistic to expect a quick change. In the second year we should promote the consolidation of the current programmes and hope for an improvement in the quantity and quality of response. The second year may prove to be a turning point or perhaps we may have to wait longer. We should remember that institutional growth is a slow and gradual process, and in our evaluation we should be neither complacent nor impatient.

8 **Financial statement**  
**1st April 1980—31st March 1981.**

**Summary**

|                             |         |
|-----------------------------|---------|
| I Receipts from ICIC        | 494,220 |
| II Disbursement             | 349,896 |
| Capital expenditure         | 103,545 |
| (a) OPP                     | 47,545  |
| (b) Orangi Federation       | 56,000  |
| Staff and contingencies     | 125,751 |
| (a) OPP                     | 86,751  |
| (b) Orangi Federation       | 39,000  |
| Training and publication    | 34,600  |
| Experimental demonstrations | 86,000  |
| (a) Wells                   | 76,000  |
| (b) Others                  | 10,000  |
| III Balance in bank         | 144,324 |

**2 Staff**

- (a) OPP  
 1 research secretary  
 2 organizers  
 1 editor  
 2 consultants

(See para 4)

- (b) Orangi Federation — Staff  
 1 caretaker  
 1 accountant  
 1 typist

**Contingencies**

- Rent and maintenance  
 Stationery, postage and telephone  
 Miscellaneous

**Details**

|   |        |
|---|--------|
| 1 Capital expenditure   |        |
| (a) OPP: 5 motorcycles—1<br>for research secretary,<br>2 for organizers, 2 for<br>consultants | 47,545 |
| (b) Orangi Federation   |        |
| Furniture   | 10,000 |
| Advance rent  | 25,000 |
| Telephone   | 20,100 |
| Cycle   | 900    |

**3 Budget for 1981—82**

|                                 |         |
|---------------------------------|---------|
| I Receipts                      | 500,000 |
| II Disbursements                |         |
| Organization                    | 200,000 |
| (a) OPP                         | 100,000 |
| (b) Orangi Fed.                 | 100,000 |
| Training and publication        | 150,000 |
| III Experimental demonstrations | 150,000 |

# 6th progress report (April - June 1981)

## 1 Year of consolidation

We said in our last report that while the first year of the OPP could be a period of investigation, this year, the second one, should be a period of consolidation. Often it is easier to start new programmes than to make them grow. This report is an outline of those activities which we have been trying to consolidate during the last three months.

## 2 Record of failure

But first let us record our failures. For many months we spent a good deal of time and money on what we called experimental demonstrations. By now it is obvious that apart from well-digging none of these has been fruitful. The sample of cheap domestic water filter has served no other purpose than to gather dust in the Federation's office. The attempt to distil saltish water by solar heat came to nothing, as did our hope that university professors could make a chemical filter. Two garbage incinerators, constructed as samples, have not attracted any attention. Neither the *gobar* gas plant built by us at considerable expense has proved to be an attractive investment. Reluctantly we conclude that our technical competence is inadequate, and the people of Orangi are not eager for innovations. So little return for so much time and money should teach us to be more prudent in our experiments.

## 3 Response from councillors

Another disappointment is our inability to persuade the majority of the Orangi councillors to utilize either the Federation's office or the social and technical services located there. Undoubtedly today the councillors are the most visible public leaders. They are occupied, to an overwhelming extent, with many functions : presenting grievances, supervising services, settling disputes etc. And, as good politicians, they are extremely jealous of their own territory and of their colleagues. Living in a state of agitation and crisis, they cannot, quite naturally, appreciate the long term view of promoting autonomous *mohalla*

*tanzeems* (neighbourhood/lane groups) with self-managed programmes of sanitation, education and health. Most of our councillors are perfectly satisfied with their VIP role as intermediaries, spokesmen, and arbitrators. Perhaps sooner or later, harassed by the evergrowing clamour around them, they will realize that they cannot indefinitely neglect the role of organizer. In the meanwhile social and technical services located at the Federation's office are available to those councillors who are aware of the need for creating more social discipline in the *mohallas*.

## 4 Coordination with KDA

After many case studies, and after prolonged discussions with *mohalla tanzeems* as well as with the Director General of KDA, we saw the possibility of gradually working out a model of integrated planning in some sectors of Orangi. For this model the plans of both external and internal development were to be prepared simultaneously, with complete local participation, under the guidance of a KDA engineer. With his technical assistance internal plans of *mohalla* lanes and gutters were to be self-financed and self-managed by *mohalla tanzeems*, and managers and masons were to be trained. Moreover, the estimates of external work were to be presented to the beneficiaries, inviting them not only to pay for but also to participate in the execution. Mr. Nizami, Director General KDA was pleased with these suggestions and sanctioned the appointment of an engineer specially for the project of integrated planning, and agreed that the engineer will work in close cooperation with the Orangi Federation. Alas, just as we were getting ready to leap forward, Orangi was taken away from KDA and handed over to KMC. So the concept of integrated planning must undergo the scrutiny of KMC, and we do not know whether they will accept it or discard it or just keep it hanging. Nevertheless, our *mohalla* planning will go on.

## 5 Three months' activities

Having narrated the tale of failure and disappointment, we proceed to summarize the activities

which we have been trying to consolidate during the last three months. These are :

- (a) Lobbying
- (b) Orangi Gazette
- (c) Mohalla tanzeem
- (d) Aligarh housing cooperative
- (e) Imams' programme
- (f) Doctors' programme
- (g) Documentation and research
- (h) Training

## 6 Lobbying

If there is one activity which does not require any encouragement it is lobbying. The urge to stoke demands and ventilate grievances is a popular passion of surpassing strength, an obsession. Under the present circumstances the passion is indeed natural, even necessary. Still, for the sake of progressive action it requires some moderation. At some stage there must be a comprehension of the basic division of functions, of the fact that while it is reasonable to demand certain things, it is equally reasonable to dispose other things ourselves. The shift from a demanding, grumbling, paranoiac mentality, to a responsible organizing mentality is hard to achieve. But it must take place and we are trying to promote it as far as we can. As yet we can perceive only a few faint and rare signs in a few places.

## 7 Orangi Gazette

The Orangi Gazette is now being published every month. It may soon have an official declaration of its own instead of coming out with borrowed feathers. It is the main vehicle of information as well as education. It is highlighting, along with grievances, some examples of responsible constructive work. More and more it will focus attention on good organizers, men of integrity, who have honestly managed projects in their *mohallas* — mosques, schools, drains, culverts etc. — without seeking fame or profit for themselves. Besides the Gazette will continue to provide much social and technical advice as it has been doing in the past issues.

## 8 Mohalla tanzeem

We must admit that the efforts to spread *mohalla tanzeems* have been painfully slow. Of course many *tanzeems* do exist and a good deal of constructive

work has been done in many places. But our aspiration is to make each *tanzeem* regular and systematic in order that it can, in a fully responsible manner, undertake four primary functions in its *mohalla*, viz., sanitation, arbitration, education and health. This aspiration, it seems, far from being readily accepted, is not even easily understood. Patiently we must go on repeating it till it is implemented in a few *mohallas* which would then serve as demonstration centres. Along with this educative effort, a survey is being made to find out the condition of *tanzeems* and constructive activity or non-activity in circle 95.

## 9 Aligarh society — a model

We are also making a detailed study of the 22 acre residential area of the Aligarh Cooperative Society. This old cooperative has been eminently successful in distributing and developing several hundred plots, and its *mohallas* have shown initiative in making lanes and gutters. Some services, like distribution of water, electricity and gas, are managed cooperatively. There are some fine leaders in the *mohallas*. We have met these leaders and proposed to them that they should come forward to teach the workers of backward *mohallas*, who may want to do similar work. Their meetings will be convened in the Federation's office. We have further proposed that the Aligarh leaders should, with the assistance of our engineer and our social experts, make plans for further improvement of their *mohallas*. We are hopeful that in the next few months the Aligarh Cooperative will become a good training model.

## 10 Imams' programme

In the last three months it is the *imams'* programme which has shown perceptible signs of growth. By now 20 *imams* have taken teachers training, of which some have also taken first aid training. Five schools have been started and more will be started after Ramzan. And more *imams* are ready for training. When the mosque committees were contacted, and informed about the *imams'* school and first aid programme, their response in most cases was enthusiastic. If the same trend persists, Orangi may have, in course of time, a numerous cadre of enlightened *imams* who could, if God wills, make their mosques not simply places of worship but also centres of education and health. And these schools would be a boon chiefly to the children of poor homes, the drop-outs, and save them from ignorance and delinquency.

## 11 The doctors' programme

Like the *imams'* programme, the doctors' programme has also shown encouraging progress. Their association has offered to start part-time clinics at the invitation of *mohalla tanzeems*. The *tanzeem* will provide accommodation. A fixed fee will be charged.



Three such clinics set up in collaboration with *mohalla tanzeems* are already in operation and negotiations are going on for more. Thus the residents of organized *mohallas* can have, if they wish, medical attention at their doorstep. Besides the Doctors' Association has rendered valuable services, both preventive and curative, during the recent epidemics of intestinal and eye diseases.

## 12 Research and documentation

From the very beginning we have emphasized the importance of searching for and understanding existing local organizations and their activists. Consequently many case studies have been made and much documentation is being done. The search continues. Its aim, in the first place, is to discover viable models and their originators, and, secondly, using them as teachers to transplant the model in unorganized areas.

Last May OPP entered into an agreement with the Department of Social Work, Karachi University, to support, and in part guide, research along the above lines by three M.Phil. students in Orangi and Baldia township.

## 13 Training

We are getting ready to train the emerging workers in the above manner, i.e., by showing them living demonstrations, and by bringing the inexperienced into the presence of the experienced. Equipment for the preparation and display of audiovisual materials, specially slides of actual work, has been assembled. Mr. Laeeq Azam of the Social Work Department has undertaken this task, like the other tasks of research and survey, with singular devotion. We hope to see some tangible results shortly.



*An unimproved lane in the planned area of Orangi*

# 7th progress report (July - September 1982)

## 1 Mr. Burney's visit

Mr. I. H. Burney, Director ICIC and sponsor of Orangi Pilot Project, spent two days with us in August. This was his second visit. He had first looked at the project last November, nine months ago. On 18th August, in a conference held at NIPA, he listened for three hours as Orangi workers explained their approach and its results. At the end some slides were shown and a simple friendly lunch was served. Next day he went to the Orangi office for further discussions. During these two days there was a good exchange of views, and Mr. Burney spoke words of encouragement and gave assurance of continued support which was much appreciated by the workers. Mr. Burney specially approved the programme of digging wells, and advised its expansion. He further urged that in addition to the programmes of sanitation, education and health, some economic programmes, e.g., artisans' cooperatives should also be promoted.

## 2 Wells

Scarcity of water is by far the most distressful condition specially of the *katchi abadis* of Orangi. There are several KDA schemes to alleviate this distress. We too are trying to make a marginal contribution by sinking a few wells in the precincts of mosques. At first we engaged a contractor. After he had constructed fifteen wells, we discovered certain weak points. In the first place the contractor's technique was not quite sound, while the cost was high. Secondly, the fact that the well was an entirely free gift, led in some cases to its neglect. Consequently we have revised our strategy. In future wells will be sunk under the direct supervision of project's engineer, and sink only for those mosques whose managing committees are willing to bear part of the expenses and guarantee proper maintenance. Three wells recently completed in this manner are efficient, cheaper and now lovingly cared for. As our contacts with the mosque committees are increasing, more requests are coming in. We scrutinize these requests very thoroughly and start the digging after being convinced that

the mosque organization is strong and dedicated. In the coming months, if there are no severe disappointments, we may expand the well digging programme. It would undoubtedly be a most beneficial investment.

## 3 First economic programme

Until Mr. Burney's visit we had confined our attention to welfare activities—sanitation, education and health. But his suggestion that we should also be concerned with economic activities stimulated us to make a first contact with groups of artisans. We found in Haryana colony blacksmiths and mechanics. Several meetings were held to discuss the prospects of joint purchase of raw materials and later on some joint marketing. Tentatively a small group has pooled some capital and made the first purchase cooperatively. The project's accountant is teaching their manager to keep proper accounts. We will carefully analyze their transactions. If these tentative attempts at cooperation succeed, we will have a model for other groups. Besides we will have valuable data in an important field—viz., cottage industry. Fortunately expert advice of two veterans of engineering and cooperative management is available. Our producers' cooperatives will have as advisors first Mr. Ghulam Kibria, the highly experienced exponent of appropriate technology, and secondly, my brother, Akhter Hamid, the skilful manager of the Mohajir Cooperative Karkhana at Comilla.

## 4 Impact of sanitation advice

In this quarter the impact of sanitation advice became visible. The engineer's office set up in June is now receiving many requests from *mohallas* for plans of underground sewerage in their lanes. The first of such plans has just been completed in Hanifabad. It has six significant features :

- (a) A plan and estimate was prepared by the engineer.
- (b) Open meetings of the residents examined

and approved it.

- (c) They appointed four managers who collected funds and purchased pipes, cement, gravel etc. at concessional rates.
- (d) Accounts were kept meticulously and shown frequently to everyone.
- (e) While a plumber and a mason did the skilled work some labour was also done by the residents.
- (f) Of the twenty resident families three were too poor to contribute. Their share of the cost was paid by the remaining seventeen families, thus providing a living example of neighbourly charity.

We have prepared a case study and slides of this project for the instruction of other *mohalla tanzeems*. The case study indicates the sociology, the technology and the economics of what may be called an example of self-managed people's low-cost planning. It may be compared and contrasted with contractor managed official planning. The cost of the Hanifabad *mohalla*-managed project is highly instructive. 288 feet of underground gutter line constructed with 6" cement pipes, 11 manholes, and connecting pipes to every house, has cost a little more than four thousand rupees, 200 rupees per house, or 2 rupees per square yard. We will publish this case study both in English and Urdu.

## 5 Mosque committees

In connection with the *imams'* programme, Maulvi Mahmood Vernalvi and Mr. Saleh Qaiser have got in touch with fifty-two mosque committees and compiled a remarkable table of information. Evidently mosque committees are the most active organizations of Orangi. They meet fairly regularly, raise funds, build and maintain mosques and *madrassahs*, employ *imams*, and generally accept the principle of democratic control and accountability. When contacted the committees have shown keen interest not only in the *imams'* programme but also in well digging and gutter building. Their office bearers have eagerly attended our monthly conferences and expressed their appreciation for getting the opportunity through such meetings, for exchanging views and becoming acquainted with *imams* from different neighbourhoods. They have asked for more conferences. It appears that in the mosque committees we have at long last discovered living organisms which have the capacity to grow and to assume more collective responsibilities. We will arrange further training courses for *imams*, meet other mosque committees and hold frequent conferences.

## 6 Conferences and slide shows

As connection is established with various kinds of social leaders — *imams*, doctors, *mohalla* managers, mosque managers—many conferences are being held at the Federation's office. These conferences are obviously promoting close relations between workers of different localities, and also gradually increasing their social skills. After much effort educational slides are now ready, and when shown at the conferences, are much appreciated by the participants. At present we have slides of good and bad lanes, of wells, incinerators, construction of underground sewerage, mosque schools, *mohalla* dispensaries and group meetings. More are under preparation to record the planning and execution of on-going projects. Many *mohallas* are inviting the Federation to hold meetings and show the slides in their premises. We find that crowds of children assemble at these meetings. For their benefit we should procure suitable slides on flies, mosquitoes, sanitation and hygiene. Surely our children deserve to be better informed than their parents.

## 7 Orangi Gazette

A new issue has come out in September with improved format and better contents. Full details of Orangi activities, including lobbying and important meeting with KMC officials, will be found there. The next issue will contain interviews with Orangi councillors and the new managers of Orangi, the KMC officials.

## 8 Seminars

During this quarter the OPP approach and a review of its first year was presented in two seminars hosted by the Director of Katchi Abadis (KMC) and the Chief of Agricultural Division (SRPO) respectively. The first seminar was attended by Orangi workers who addressed the audience and answered their questions. Slides were also shown. Thus the OPP, while scrupulously avoiding cheap publicity, is presenting its findings to appropriate gatherings.

## 9 Research

The compilation of case studies of *mohalla*-managed low cost planning and construction of wells is proceeding steadily. An M.Com. has been added to the team composed of the engineer and trained social worker in order to comprehend thoroughly all three aspects involved in the case studies, viz., sociological, technical and financial. The M. Phil. research programme sponsored by the university's Social Work department is also proceeding, with one candidate stationed in Orangi and the other in Baldia. The department has included OPP's progress reports in the reading assignment of its students. Mr. Omar Laeeq

Azam, who was helping us as a consultant has departed for higher studies in London. But Professor Adhami, Chairman of the department has assured us that the collaborative research will not be neglected.

## 10 Audit report

Messrs. Hyder and Co., chartered accountants, were engaged to audit the accounts of OPP and the

Orangi Federation. They have prepared a certified Statement of Accounts from April 1980 till 31st May 1981. One copy of this audit report was handed over to Mr. Burney for ICIC files, and other copies have been placed in the Federation's office in Orangi. The last progress report contained an analysis of the expenses incurred till the end of the first year. Another analytical financial statement will be presented in the next progress report.



*The problem of sewage disposal: In the absence of an underground system the lane is full of excreta and sullage*



*Lanes in the planned area also suffer from the absence of a sewage disposal system.*

# 8th progress report (October - December 1981)

## 1 Pattern for planning low-cost sanitation

- (a) After groping for many months we can now claim that a pattern for planning of low cost lane sanitation has emerged clearly. During the last three months residents of more than thirty lanes, with the assistance of our engineer have made plans for laying underground R.C. gutter pipe lines, work has been completed in half of these lanes and progressing rapidly in others. (A statistical table will be presented in the next report ). More requests are coming in. The demonstration effect is evident. As one lane succeeds in the disposal of sewerage, it raises keen interest in the adjoining lane.
- (b) Disposal of sewerage, or lane sanitation, is a crying need of *katchi abadis*. Houses are built quickly through private initiative, but the public or social initiative which alone can build the lane sanitation is usually missing, because the prevailing climate of attitudes and opinions inhibits its growth. The residents cannot but be aware of the need for proper disposal of filth. And indeed there is no lack of awareness or grumbling. Unfortunately, in most places the ways and means are not properly understood.
- (c) We found that for effective understanding the residents required both social advice and technical guidance. The main theme of social advice was to explain that lane sanitation depends upon lane organization which can be achieved by neighbourly goodwill and co-operation. The technical guidance consisted in surveying, drawing a plan, training the managers in supervision and account keeping and convincing them that the construction was neither too difficult nor too expensive.
- (d) Reduction in cost has been a key factor in the acceptance and spread of the pattern.

Cost has been reduced for the following reasons :

- (i) Free supply of plans, estimates and technical guidance.
- (ii) Self-management by lane residents—elimination of contractors' profiteering and cheating.
- (iii) Careful purchase and use of materials.
- (iv) Free contribution of work supervision, account keeping, and some unskilled labour by the residents.

Often the cost has been as low as two or three rupees per sq. yard of plot area, or two to three hun-



*A lane developed by the people with OPP's technical assistance.*

dred rupees per house — a glaring contrast to official or contractors, prevalent rates.

## 2 A seminar on people's planning

We are collecting and compiling the data on these sewerage schemes which are real examples of people's planning, financed by themselves and managed by themselves. We are also making slides showing the various stages of work. Before long there would be sufficient material for a seminar on people's planning of low-cost sanitation, not in a few rare or exceptional cases, but in substantial numbers and in widely scattered places.

## 3 Hope for integrated participatory planning

Here a disclaimer is necessary. We are far from suggesting that the problem of sewerage disposal can be solved simply by a programme of so-called self-help. Such total faith in the "self-help" gospel can be professed only by fools or hypocrites. The problem can be solved only through close partnership between public agencies and the residents. We have been advocating, and will continue to advocate, the concept of integrated planning, viz., the public authorities (KDA or KMC) should assume and fulfil the responsibility in respect of external development, while the residents should assume and fulfil the responsibility in respect of internal development. But the external and internal plans should be completely coordinated and integrated. Even in external development the public authorities should obtain the participation of the resident beneficiaries through consultation and publicity, and the public authorities should provide social advice and technical guidance for internal development.

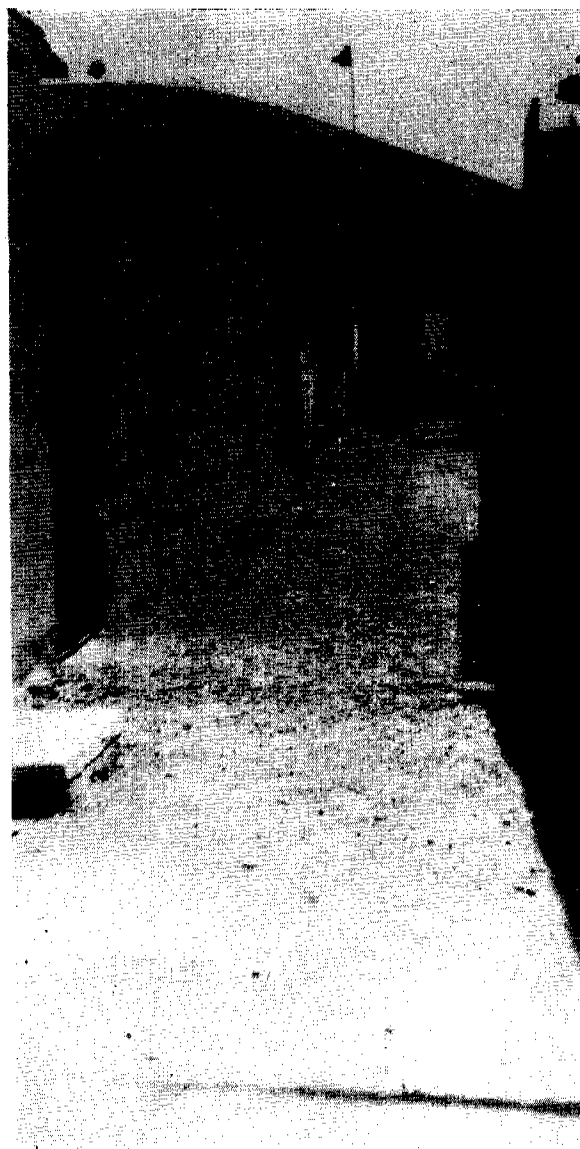
We are happy that the concept of integrated and participatory planning is being sympathetically considered :

- (a) According to a recent decision Orangi township will be managed, in the near future, by an autonomous board. Decentralized autonomy will make the task of participatory planning much easier.
- (b) We have explained the first encouraging examples of people's planning to the Mayor of Karachi, the Commissioner of Karachi, the Municipal Commissioner, and the KMC engineers. They have shown sympathetic interest.

## 4. Low-cost tubewells

Along with sanitation another crying need is shortage of water. Any additional supply, even of hard or brackish water, would be welcome, not of

course for drinking but for other purposes—flushing, washing, sprinkling etc. We have tried, in a small way, to tackle this enormous problem. At first we engaged a contractor who proved both expensive and inefficient. During the last six months our engineer has sunk six more wells under his direct supervision. We have succeeded in reducing the cost and improving the quality. However, if the cost can be further lowered, and lowered substantially, then we can hope for the same results in respect of spread of low-cost water supply as are being obtained in the case of low-cost sanitation. We have been told that a big reduction in cost is possible if instead of digging six feet diameter wells, drilling is done for two inches diameter tube



*No cess pools and no exposed excreta. Another lane with an underground sewerage system built by the people.*

wells. Presently, we are collecting information about drilling rigs. It appears that we must own a full range of equipment for cheap and quick drilling and this may require a large initial investment. If we are convinced, after a thorough investigation, that the investment will enable us to demonstrate the possibility of low-cost tubewells, we will inform Mr. Burney, our sponsor, and ask for his approval.

## 5. Economic programme

Our first attempt to organize a group of artisans in Haryana colony for joint purchase of their raw material soon came to nothing. In spite of being close relatives the artisans obstinately rejected, after an initial deceiving display of willingness, any kind of co-operative action, demanded assistance on a purely individual basis. It was a false start.

In November we contacted a group of Benaras cloth weavers, many thousand of whom live in Orangi. We discovered that at present they are facing a severe crisis. Fifteen years ago there was a big demand for their products at home and abroad. But during the last few years the export market has dwindled and now even the home market is being flooded with Indian *saris*. As a consequence many looms are becoming idle, prices and incomes are falling and the weavers are bewildered.

Obviously this tragic decline has been caused by lack of quality control. The weavers themselves admitted that compared to Indian products, the colour of our *saris* is not fast, and the *zari* (lacquered metallic yarn) soon loses its lustre. Through lack of research, training, quality control etc., we have been beaten in a highly competitive market.

We took the first problem, i.e., the poor quality of colours, to Mr. Sanaulah Qureishy, a director of ICI, and Dr. Sabir Ali Syed, their marketing manager. He sent Mr. Shamsuddin, the technical services expert, to investigate. He arranged a training programme in his laboratory and our trainees prepared perfectly fast colour samples without any difficulty. Apparently two factors were responsible for the defective colours of Orangi dyers: 1) adulterated dyes, and 2) inadequate techniques and equipment.

Mr. Shamsuddin helped us to set up a model dye house. It is just being completed and will go into operation in the first week of the new year. The weavers of Benaras colony are now full of excitement and so are we. We will relate the next instalment of this exciting story in our 9th report.

## 6 Collapse of the imams' programme

Readers of our reports may remember how we have laboured over a four-point *imams'* programme. It

proposed that 1) *imams* should take teachers' training and start preprimary schools specially for children of poor families; 2) take first aid training and give first aid along with amulets; 3) organize reading circles for adult *namazis*, with the help of books borrowed from our library; 4) take mechanical training for maintaining the mosque well and pump.

At first their response appeared to be very encouraging. Thirty *imams*, in several groups, came for training and proudly carried away our gift of books and first aid boxes. We entertained high hopes. Our sixth report said, "If the same trend persists, Orangi may have in course of time, a cadre of enlightened *imams* who could, if God wills, make their mosques not simply places of worship, but also centres of education and health." Mr. Burney gave us a pat on the back.

Now we must admit that we were indulging in wishful thinking. We were deceived by a false show of enthusiasm, a common experience of social workers. At the end of six months our survey shows that none of the trained *imams* is running any school, or first aid centre, or reading circle. In fact most of them have departed from the mosques they came from, and taken away the first aid boxes and books with them. Of course the wells we dug are still there, but the *imams* paid no attention to them. We have lost a lot of money and time and faith.

The cause of the collapse, as ascertained by us, is extremely significant. The fact is that most of the *imams* are not permanent residents of Orangi, but needy transients from the depressed areas of Pakistan. They are not respected. They are paid low wages and treated arbitrarily by the mosque committees. Hence they circulate from mosque to mosque like casual labourers. I have worked with the *imams* in Comilla (Bengal) and in Daudzai (Peshawar). Their position and calibre was quite different. They were deeply rooted in the community, committed to its welfare, kindly advisors, worthy of respect. Are the mosque committees of Orangi promoting the cause of Islam by demoting imamship into a low-caste profession?

Disappointed with the *imams* we approached the mosque committees. They were polite, they were sympathetic, they were in full agreement. Some of them even came to attend our meetings. But it was all mere lip service. Except the demand for wells, not one committee has shown any active interest in making the mosque a centre for primary schooling or first aid. That the mosque is centre for ritual prayer is more than enough for them.

## 7 Home schools and first aid centres

A social worker, like a cat, should have nine lives.

Rejected by the *imams* we devised another programme to advance basic education and health. We turned towards the class of educated women and girls who are sitting half idle in their homes, hoping that they would undertake the running of preprimary schools and first aid centres.

The first training programme was arranged in November and the second in December in Aligarh colony and Qasbah respectively. Altogether fifty girls came for first aid and teachers training. Many more are on the waiting list.

Our latest survey shows that nineteen home schools have already been started, teaching more than four hundred children. (A statistical table will be given in the next report). In several places two or more trained girls are ingeniously running a home school in tandem.

We will now help in consolidation of these home schools and hold monthly conferences of the teachers to upgrade their skills. May be we will find in them that enlightened cadre of workers who would cater to the elementary health and education needs of their *mohallas*.

It may be pointed out that the OPP provides only training and a few teaching aids. Otherwise the home schools will be self-supporting. We have learnt, with agreeable surprise from the girl teachers that in almost every case the parents of the school children have gladly agreed to pay a monthly fee, while the teachers themselves have made the required concession for a truly destitute family.

## 8 A school works programme

Faran High School is a rare example of the creation and successful management of a large institution

by a small group of dedicated teachers themselves. Recently they have agreed to organize a school works programme. OPP has provided a few sets of masons and carpenters' tools. Mr. Nurul Huda, Science teacher, has selected a group of sixteen students, who will work under the supervision of a skilled mason and a carpenter on the construction of the school building and furniture. Our engineer will give plans and technical guidance.

The experiment is progressing very well. Student groups have collected stones, made cement-concrete blocks, paved floors and built walls. They are paid by the hour.

In the next report we will give an analytical table showing the work done, the wages earned and the saving effected. If successful, this would be an excellent model for other high schools.

## 9 Conferences and slide shows

We have now numerous workers who have successfully organized lane sanitation. Their number grow every month. Then there are the home school teachers. We are planning to hold monthly conferences of the workers to discuss the scope of future activities and spread them to other areas.

Our projector is giving good service. More slides have been prepared to show the construction of sewerage lines, wells, running of home schools, school works and dye house. Recently Mr. Burney has sent slides from London. These would be useful teaching aids for our workers and the Orangi Doctors' Association.

## 10 Financial statement

The last statement was given six months ago. Here is the current statement showing the position upto 1st December 1981.

|  | Apr. 1980-May 1981 | Jun. 1981-Nov. 1981 | Total   |
|--|--------------------|---------------------|---------|
| <b>Receipts</b>                        | 494,220            | 400,000             | 894,220 |
| <b>Disbursements</b>                   |                    |                     | 656,027 |
| I Capital Expenditure: OPP             | 48,439             | 13,524              | 61,963  |
| Orangi Federation                      | 66,595             | 6,630               | 73,225  |
| II Organization: OPP                   | 89,900             | 136,200             | 226,100 |
| Orangi Federation                      | 39,000             | 31,550              | 70,550  |
| III Training and publication           | 50,130             | 43,430              | 93,560  |
| IV Demonstration and experiment: Wells | 84,570             | 7,931               | 92,501  |
| Others                                 | 25,600             | 3,528               | 29,128  |
| V Research                             |                    | 9,000               | 9,000   |
| Balance                                |                    |                     | 238,193 |



# 9th progress report (January - March 1982)

## 1 End of two years — a review

Our Pilot Project is now two years old. At the beginning we had frankly admitted our lack of knowledge and the absence of a blueprint plan of action. We only vaguely knew that our main purpose should be to promote organization, and realized that it will take time to make ourselves familiar with prevailing conditions and improvement efforts. Consequently the early months were mainly a period of investigation and of preliminary work of establishing an office and recruiting core workers, social organizers and technical consultants. After six months we were engaged in the following activities :

- (a) Support to the Orangi Federation.
- (b) Publication of an Urdu quarterly.
- (c) Experimental demonstration — wells, sanitation.
- (d) Training, e.g., of the *imams*.
- (e) Conferences e.g., with councillors, association leaders, mosque committees, *mohalla tanzeems*, etc.

It became obvious that for improvement in Orangi the act of lobbying i.e., the presentation of demands and grievances to public agencies was as essential as organization itself. It was hoped that the support to the Federation, the publication of the Urdu quarterly, developing the Orangi office as a base for training in organizational skills, and as a forum for healthy discussions, will promote both rational lobbying and useful organization.

## 2 Four programmes of the second year — consolidation

By the end of first year, through trial and error, some working knowledge was acquired about the priorities and needs of organizational training. Early hopes often proved too optimistic. The trial and error approach was painful and expensive. But gradually, apart from the aim of coordinated and rational lobbying, four programmes emerged which seemed suitable for consolidation:

- (a) Low-cost lane sanitation, self-financed and self-managed.
- (b) Research for low-cost underground water supply for non-drinking purposes.
- (c) Introduction of home schools and first aid centres.
- (d) Rehabilitation of Benarasi silk weaving cottage craft.

The slow and arduous manner in which these programmes are being consolidated has been described in previous reports. The process is far from complete and will continue during the third year and beyond. However, the third year will be not only a period of further consolidation but also of expansion.

## 3 Prospects of expansion

There are three prospects of expansion.

- (i) United Nations Centre for Human Settlements (UNCHS) has made an offer to BCCI to collaborate in the further development of the Orangi Pilot Project. The BCCI has accepted this offer and a 3-year plan, jointly sponsored by UNCHS and BCCI has been submitted to the Government of Pakistan through the Governor of Sind. If it is approved UN experts may arrive to give technical guidance in sewerage treatment, tubewell drilling, desalination, health, education and monitoring and evaluation.
- (ii) In any case this year the scope and area of OPP will be expanded. We intend to start some important activities with the help of Orangi Education Foundation. This Foundation is running several schools in different sectors of Orangi. Its young and energetic organizers intend to make these schools centres for training of the neighbourhood residents to fulfil some of their urgent needs on a do-it-yourself basis. For instance selected teachers will learn the construction

of septic latrines and sewerage lines from qualified architects and engineers. Having learnt themselves the teachers will train the residents. Tools, blueprint, shutterings etc. will be lent to the residents from the school centres. Other teachers can specialize in other fields like public health, nutrition, consumer and producer cooperatives, and organize community teaching. The Foundation is specially interested in the creation of home schools and first aid centres. They intend to affiliate these home schools to their regular schools and arrange for their supervision and guidance.

- (iii) The ongoing effort for the improvement of Benarasi silk craft will be further enlarged with the assistance of the Sind Small Industries Corporation. Besides the possibilities of cooperative development of other artisans will also be explored.

## 5 Progress since the last report

Having reviewed the past and the future, let us now relate the progress since the last report.

- (a) Planning of lane sanitation.
- (b) Design of low-cost septic latrine.
- (c) Assembly of tubewell drilling rig.
- (d) Home schools and first aid centres.
- (e) Benarasi silk weavers' programme.

Here we can give the barest outline of our main efforts. Interested readers are referred to the Urdu quarterly for detailed reports and case studies.

## 6 Low-cost lane sanitation

The following table shows the growing acceptance of our pattern of low-cost lane sanitation.

| Months 1981-82       | Sept. | Oct.  | Nov.  | Dec.   | Jan.  | Feb.   | Total  |
|----------------------|-------|-------|-------|--------|-------|--------|--------|
| No. of mohallas      | 2     | 2     | 1     | 3      | 3     | 9      | 20     |
| No. of lanes         | 11    | 5     | 4     | 14     | 13    | 43     | 90     |
| Length (rft)         | 3096  | 2486  | 700   | 6904   | 5309  | 21318  | 34504  |
| Estimated cost (Rs.) | 47768 | 37872 | 11076 | 107685 | 81248 | 378076 | 663725 |
| Cost per rft (Rs.)   | 15.42 | 15.23 | 15.82 | 15.59  | 15.30 | 17.73  | 19.23  |

## 4 Emphasis on research, development and evaluation

Practical experience has revealed many weak links in our technical competence and our social concepts. We must now pay much more attention to R & D for refining techniques. The need for R & D has been impressed upon us by the difficulties encountered in introducing low-cost sanitation or low-cost tubewell drilling. Similar difficulties have been faced in the case of the model dye-house. To discover techniques which are efficient, economical, and easy to operate seems to be our foremost task. If we fail to perform it our message will be without substance. It will turn into the customary verbal sermons. Secondly we are still enveloped in the cocoon of our social assumptions which often delude us into wishful thinking. We need a truer understanding based on real insights which can be gained only through prolonged and detached observation and careful monitoring. The time has come to set up a sensitive system of monitoring and evaluation.

Let us point out that work has not been completed in all the lanes. In fact in some lanes it has not even started. Planning based on popular participation and self-financing proceeds at its own pace which cannot be forced. Some dropouts may also be expected. However we are monitoring the execution of work and we will present its analysis in future reports. The construction of lane sewerage is by no means a smooth task. How tedious and complicated it is to persuade all the lane families to cooperate, to contribute the funds, to settle disputes and satisfy grievances, can be judged from the case studies of sewerage work in Aligarh and Mujahid colonies published in our Urdu quarterly's February issue.

## 7 Low-cost septic latrine

Underground sewerage requires the construction of a septic tank latrine in every house. Once again we found that the contractor's charges are high, while the work done is of poor quality. We have therefore approached our architect friends and

engineers to design a family size septic latrine and give us a simplified blueprint and shutterings so that we could train the house owner to make it on a do-it-yourself job. If the owners could borrow the implements, make joint purchases of materials, and themselves do the labour, the cost would be substantially reduced. The first latrine built in this manner cost eight hundred rupees. We hope to bring the cost down to five or six hundred rupees with a better design.

### 8 Assembly of drilling rig

When Mr. Burney approved the proposal for drilling research and sent one lakh rupees, we began the assembly of a drilling rig. It proved to be a difficult and time consuming task. After three months of persistent effort our engineer has succeeded in manufacturing and testing a mechanical percussion rig which is expected to bore an 8" diameter 50 feet deep hole in two or three days. This should provide in many places a source of underground water supply at low cost. However, as yet we do not know with any certainty the efficiency, the financial cost or popular acceptance of our operation. Much testing remains to be done of the technical, economical and social factors involved. The R & D of low-cost water supply is going to take several more months, but we are convinced that the toil and expense will be worthwhile.

### 9 Home schools and first aid centres

From December 1981 till March 1982 four groups of girl teachers joined the training for running home schools and first aid centres. The following table shows the position in March 1982.

*Home Schools*

|                       | Group I  | Group II | Group III | Group IV | Total |
|-----------------------|----------|----------|-----------|----------|-------|
| Date of training      | 22-11-81 | 16-12-81 | 14-2-82   | 14-2-82  |       |
| No. of girl teachers  | 20       | 20       | 20        | 20       | 80    |
| Home schools          | 6        | 5        | 16        | 12       | 39    |
| Girl teachers engaged | 9        | 12       | 19        | 12       | 52    |
| Children in schools   |          | 133      | 206       | 186      | 663   |
| Girl students         | 55       | 76       | 109       | 90       | 330   |

A conference of girl teachers is being held and almost every school is being visited once every month. Useful data is being collected about the children and

the teachers. Although the dropout rate of teachers and students is rather high, there are signs that the home schools are popular and viable. Monthly fees are paid willingly by most parents. Many children, specially girls, who were not going to any school are coming to the home schools. Even school-going children are coming for coaching. There is frequent use of the first aid skills of the girl teachers. We are getting many requests for similar training from other areas. An investment of twenty thousand rupees in training and teaching aids has yielded ample results. We can say with some confidence that this programme shows a high ratio of benefits to cost.

### 10 Problems of a model dye house

The support programme for Benarasi silk weavers which the OPP initiated three months ago, at first appeared to be a simple affair of setting up a model dye house and demonstrating the technique of fast colours. After two months' operation what was supposed to be simple has turned out to be quite complicated. Unexpected difficulties have cropped up. In the first place reliable dyes are not available in the Karachi market and perforce arrangements have to be made for importing, which requires a big investment. Secondly, the workers at the dye house have proved to be poor learners. They have neglected accuracy and measurement and made scant use of the testing laboratory. Thirdly, the management has been marred by squabbles and incompetence. We are accepting all these as teething problems, the unavoidable hurdles in the path of technical and social R & D. Fortunately the Chairman of the Sind Small Industries Corporation has come forward to help the project by importing inputs like dyes, chemical, silk

and zari. And my friend Ghulam Kibria, and my brother Hamid have undertaken to provide the technical and managerial guidance at this crucial stage.

## 1 OPP phase II

An agreement between the Government of Pakistan, UNCHS, and BCCI was signed in June 1982 for OPP Phase II. The period of the agreement is three years. For the next three years BCCI will donate two million dollars, of which one million dollars will be handed over to UNCHS for providing the services of experts for improvement of sanitation, water drilling, public health, programme monitoring etc. Besides an experienced settlement planner will be posted as joint director. He is expected to arrive next month. Let us hope that assistance of a UN agency obtained at high cost will upgrade the technical competence of OPP and increase the scope of coordination with our own official agencies. We must now work harder to create neighbourhood organizations capable of using the technical and social advice offered to them.

## 2 Managerial arrangements

To get ready for harder and systematic efforts new managerial arrangements have been made. OPP's work has been divided into ten sections, and each section has been placed under a manager as follows:

- Budget and accounts
- Administration and training
- Low-cost sanitation
- Water drilling
- Club and home schools
- Benarasi weavers' programme
- Mohalla tanzeems
- Women's programme
- Publications and Orangi Quarterly
- Library and documentation

Each manager is being encouraged to assume responsibility and take the initiative. He is preparing a monthly report, tabulating the progress, pointing the good and bad aspects, making suggestions and fixing targets. Every Thursday there is a general meeting of OPP staff in which the managers present a weekly review of their section. We are trying vigorously to establish these procedures as regular routines. As most of the managers have already gone through a year's probation, we hope that they will be able to perform their difficult organizational tasks with growing technical and social competence.

## 3 OPP's role

Two years ago when I began to observe the Orangi social scene, I was impressed by the ubiquity and exuberance of multifarious local organizations—*anjumans*, associations, foundations, societies, committees, schools, mosques and councils. I was encouraged by the presence of activists everywhere. After a few months of further acquaintance I began to believe that OPP's main role should be to promote the growth of these organizations, to increase their vitality by providing the relevant technical and social training to their activists. Consequently a few organizations were selected for collaboration. Gradually we were disappointed by the meagre results. We do not doubt that these organizations are important and necessary. But it seems that they want to proceed along their own old ways and reject our suggestions for training, or assumption of new responsibilities, or any change in attitudes of methods. Thus we found that the *imams' anjuman* was unwilling or unable to make the mosques centres for community education or health. The councillors were not enthusiastic about *mohalla tanzeems* or the school teachers with training the lane residents about sanitation. We offered them what we thought was bread, but they regarded it as stone. And finally after prolonged collaboration, we have been disillusioned with the All Orangi Federation. From 30th June 1982 OPP has ended its close relationship with the Federation. Of course OPP will continue to provide whatever services

it can to any group that shows a sincere desire for such services. But it will discharge its duties as a social and technical educator directly.

#### 4 Monitoring

In the last two months we have not only restructured our management, we have also developed a system of monitoring our programmes. Figures are being collected regularly which clearly indicate their emerging pattern, their strong as well as their weak points. The accounting methods have also been streamlined. It is now possible to show the development and consolidation of programmes like low-cost sanitation, water drilling, home schools, first aid centres, Benarasi weavers, in tabular form. Simultaneously by collating the progress tables with the financial tables it will be possible to calculate, wherever necessary, the cost benefit ratios. More analytical tables will be designed shortly.

#### 5 Programme's progress

Low-cost lane sanitation. Let us look at this table giving the cumulative position on 30th June 1982.

| Lane sanitation plans — August 1981 to June 1982. |                  |
|---|------------------|
| Mohallas  | 31               |
| Lanes   | 227              |
| Houses  | 5091             |
| House plot area                                   | 668,130 sq. yds. |
| Total length RCC pipe gutter line.                | 90,874 ft.       |
| No. of manholes                                   | 1,874            |
| Total estimated cost                              | Rs. 1,701,809    |
| Average cost per rft                              | Rs. 18.72        |
| Average house plot area                           | 131.23 sq. yd.   |
| Average cost per house                            | Rs. 334.28       |
| Average cost per sq. yd.                          | Rs. 2.54         |

The following conclusions can be drawn from these figures:

- (a) Low-cost lane sanitation is popularly acceptable.

- (b) The number of participating houses and lanes is impressive.
- (c) The extent of the work planned is massive.
- (d) The average cost per rft for underground RCC pipe sewerage lines is less than 1/3rd of contractors' rates.
- (e) The average cost per house (Rs. 334) can be easily afforded by the lane residents.
- (f) Popularly planned lane sanitation can be constructed at an average cost of Rs. 2.54 per square yard of plot area.

#### 6 Lane sanitation — Execution

If we were not faithful to the spirit of a pilot project, to the principles of close scrutiny and critical evaluation, we could rejoice at the above rosy picture of planning. However, we have decided, as far as possible, not to deceive ourselves. Therefore a survey is being arranged of the actual work done in the lanes. Fortunately a dedicated lady architect, Perween Rahman, has undertaken this arduous task and visited several *mohallas*. Several weeks are required to complete the survey. But preliminary visits have revealed some disturbing weaknesses:

- (i) In some cases our technical advice has been faulty. For instance in some lanes the level was not properly ascertained. The manhole shutterings provided by us are defective.
- (ii) The importance of constructing septic tank latrines inside the houses before connecting them to the underground gutter line was not impressed upon the residents.
- (iii) In some places popular participation has been abandoned and powerful individuals have assumed the role of contractors.
- (iv) In many places the keeping and publicizing of accounts has been sadly neglected.

These delinquencies have upset the programme's progress. However the most serious obstacle is the absence of planning for the main external drains. We were hoping first that the KDA, and later the KMC, will join hand with the lane residents who constructed the internal sewage lines and construct the external drains for them. We are still hoping that what is at present a ludicrous hopping on one leg may at last become a walk on two legs, i.e., a coordinated internal and external sewerage development. Perhaps after his arrival, the UN settlement expert may be able to persuade our official agencies to be more

receptive towards the concept of integrated planning and popular participation. Perhaps I am too unimportant, too old and also too busy otherwise to accomplish this labour of Hercules.

## 7 Water drilling programme

Our technical incompetence was most fully exposed in the water drilling programme. The decision to assemble a machine rig was taken in December. It was assembled in three months in an Orangi workshop for the sake of cheapness. We forgot the Persian warning — *Arzan ba illat* — cheap may be rotten. As both the workshop and ourselves were inexperienced the rig proved not only rotten but also very costly. It broke down again and again. Only four holes could be bored in three months. Finally we took it to an expert workshop for an overhaul. Thus much precious time and a lot of money was wasted, and a bitter lesson was learnt. Now at last it is working properly and two good holes have been bored in 14 days. We hope to present a table of drilling in the next report. In the meanwhile we have decided to purchase another rig from the best workshop in Karachi. It is imperative to expand the drilling programme and make it work efficiently, because there is a most distressing scarcity of water and we are receiving urgent requests from many quarters, including the Baloch *gothes* or villages located many kilometers away from Orangi.

## 8 Benarasi weavers' programme

The ordeal continues. The model dye house was set up in January 1982. After three months it was discovered that its success depends on substantial investment for import of ICI dyes directly from London. The local market supplied to the small craftsmen only adulterated dyes. Being eager to prove that quality control is possible we ordered the supply of a small consignment by air on 24th April. We were assured that the dyes will be in our hands within a week. Instead we got them exactly two months later, on 24th June. For 18 days, from 6th June to 24th June the airlifted drums were lying at the Karachi airport. Now at last shade cards have been prepared and the weavers are being assured of guaranteed fast colours. One big problem has been solved, but only technically not economically. Because in the last six months the dye house has incurred much loss. One hope is that with the arrival of dyes by sea, and with the increase in number of customers, the loss would be gradually reduced. In the meanwhile our consolation is that the managers and workers of the dye house have acquired rare and invaluable skills. The next report will contain tables and trading accounts.

However, we have learnt that quality control of colour is only one of the problems for the cottage

weavers. Another major problem is the traders' stranglehold on the price of silk. We succeeded in convincing the Secretary of Industries, who is also the Chairman of the Small Industries Corporation (SIC) that the corporation should import silk, dyes and *zari* for the Orangi group of weavers whom the OPP will organize into a cooperative around the model dye house. The Secretary after thorough investigation and many discussion meetings, sent a scheme for the approval of the minister, which was accorded after ten weeks. Now we have to wait for another two or three months for the consummation of the import process.

## 9 The dark tunnel

Our own crippling incompetence, the unwarranted delays imposed on us, the oppressive economic environment, and general apathy — we seem to be travelling in a very dark tunnel indeed. Personally I find refuge in the Buddha's teaching that our worldly life is surrounded by *dukha* and our only option is to plod patiently on towards the light at the end. To translate this into the language of development, we can say that slowly, painfully, at heavy cost we are trying to create managerial and technical skills, and habits of collective efforts and institutional cooperation, which will ultimately overcome the present difficulties, and we will, in course of time, begin to see the light at the end of the tunnel — *Inshallah*.

## 10 Home schools and first aid centres

The position on 30th June is shown in the following table:

| Home schools — 30th June 1982                        |       |
|--|-------|
| Girl teachers trained — 5 groups since December 1981 | 100   |
| Girl teachers working                                | 61    |
| No. of home schools                                  | 46    |
| Total no. of children                                | 879   |
| Boys   | 467   |
| Girls  | 412   |
| First aid cases (cumulative)                         | 3,317 |

This programme is proceeding smoothly, thanks mainly to the unrelenting efforts of Quratul Ain. In the next three months additional supervisory and training staff, lady health visitors and lady social workers will be appointed to improve the quality of

training. Two more groups will be recruited and trained. If possible some ladies' clubs will be organized in some lanes. Requests for training are pending from several *mohallas*. OPP has spent 31 thousand rupees on training these girl teachers and supplying them with first aid boxes and teaching aids. No salary is paid. The schools are sustained by fees paid by the parents.

Some interesting calculations are given below:

|  |                      |         |
|--|----------------------|---------|
| Cost of training a teacher and first-aider | $\frac{31,000}{100}$ | Rs. 310 |
| Cost per working teacher                   | $\frac{31,000}{61}$  | Rs. 508 |
| Cost per school                            | $\frac{31,000}{46}$  | Rs. 674 |

Cost per child  $\frac{31,000}{879}$  Rs. 35

There are no recurrent liabilities except those which may be incurred for further training of the girl teachers and first-aiders.

## 11 Financial statement

As stated in para 1 we have redesigned both our management and accounting systems. A complete statement (12 pages) of receipts and disbursements from April 1980 to 31st May 1982 has been prepared. It contains abstracts as well as detailed sheets of each head of expenditure. Two abstracts are reproduced below.

### OPP receipt and disbursement — April 1980 to 31 May 1982

|                                     | Apr. 1980 — May 1981 | Jun. 1981 — May 1982 | Cumulative |
|-------------------------------------|----------------------|----------------------|------------|
| Receipts : From BCCI                | 594,220              | 800,000              | 1,394,220  |
| Refund of loan from dye house       |                      | 16,921               | 16,921     |
| Contributions for wells             | 45,000               | 9,000                | 54,000     |
| Total of receipts                   | 639,220              | 825,921              | 1,465,141  |
| Disbursement (See detail sheet)     | 430,820              | 694,373              | 1,125,193  |
| Balance in bank-31 May 1982         | BCCI                 |                      | 101,384    |
|                                     | N.B. Acct. 256       |                      | 14,010     |
|                                     | N.B. Acct. 280       |                      | 21,590     |
|                                     | N.B. Acct. 282       |                      | 200,485    |
| Total bank balance                  |                      |                      | 337,479    |
| Cash in hand 31 May 1982            |                      |                      |            |
| Engineering section                 |                      |                      | 1,356      |
| Economic section                    |                      |                      | 1,099      |
| Training section                    |                      |                      | 20         |
| Total of cash in hand               |                      |                      | 2,475      |
| Total bank balance and cash in hand |                      |                      | 339,947    |

## 12 Financial statement — Heads of expenditure

Abstract disbursement April 1980 to 31 May 1982

| Heads                        | April 1980<br>to<br>May 1981 | June 1981<br>to<br>31 May 1982 | Cumulative       |
|------------------------------|------------------------------|--------------------------------|------------------|
| OPP staff and contingency    | 62,900                       | 157,805                        | 220,720          |
| OPP consultants              | 27,500                       | 40,550                         | 68,050           |
| Research and evaluation      | —                            | —                              | —                |
| Meetings and conferences     | 341                          | 4,656                          | 4,997            |
| Training                     | —                            | 41,880                         | 41,880           |
| Orangi Quarterly             | 18,900                       | 47,200                         | 66,100           |
| Other publications           | 830                          | 16,708                         | 17,538           |
| Audio visual                 | —                            | 12,160                         | 12,160           |
| Demonstration and experiment | 25,600                       | 11,969                         | 37,569           |
| Engineering—sanitation       | —                            | 14,173                         | 14,173           |
| Water drilling               | —                            | 15,493                         | 15,493           |
| Economic programme           | 4,500                        | 75,227                         | 79,727           |
| Grants                       | 39,000                       | 53,000                         | 92,000           |
| Capital expenditure          | 121,664                      | 128,384                        | 250,048          |
| Wells                        | 129,570                      | 22,870                         | 152,440          |
| Loans — dye house            | —                            | 52,295                         | 52,295           |
| Library and documentation    | —                            | —                              | —                |
| <b>Total</b>                 | <b>430,820</b>               | <b>694,373</b>                 | <b>1,125,193</b> |

## 13 Financial statement — Capital expenditure

Abstract of capital expenditure

April 1980 — May 1982

|     |   |                  |
|-----|---|------------------|
| I   | OPP office: motor cycles, furniture, telephone, advance rent etc. | 137,838          |
| II  | Audio visual: taperecorder, projector, generator, etc.            | 16,275           |
| III | Engineering sanitation: tools and equipment                       | 19,933           |
| IV  | Water drilling rigs   | 76,003           |
| V   | Dye house: building and equipment                                 | 30,147           |
| VI  | Dye house loans   | 52,295           |
| VII | Wells   | 152,440          |
|     | <b>Grand total</b>  | <b>484,931</b>   |
|     | <b>Total expenditure</b>  | <b>1,125,193</b> |
|     | <b>Capital expenditure</b>  | <b>484,931</b>   |
|     | <b>Non-capital expenditure</b>                                    | <b>640,262</b>   |
|     | <b>% of capital expenditure</b>                                   | <b>43.09</b>     |



# 11th progress report (July – September 1982)

## 1 Reorganization and expansion

In our tenth report we described somberly the difficulties encountered and the weaknesses discovered in our programmes of low-cost sanitation, water drilling and model dye house. During the last three months our main concern was to overcome the difficulties and to reorganize and improve these programmes. Besides we were also engaged, more happily, in the expansion of programme of home schools and first aid centres and of youth clubs and women's groups.

## 2 Improvement of low-cost sanitation

(a) Low-cost sanitation is evidently our most important programme. As indicated in previous reports many neighbourhoods were keenly interested. Till the end of June 1982 plans and estimates had been supplied to 31 *mohallas* for 227 lanes. We were very pleased by this response. However, an evaluation by architect Perween Rahman revealed that OPP's technical service was less than competent. While planning was promoted hastily, the execution of the plans was neglected and not properly guided. As a result there was much dissatisfaction and very few fresh requests were being received.

(b) After this painful evaluation we began to reorganize both the technical and social side of the programme. The technical staff has been strengthened. Ms. Perween Rahman has agreed to become a consultant. Mr. Mobin Qureshi, an instructor at the Polytechnic Institute, has agreed to supervise the surveying and to train the *mohalla* organizers. A whole-time draughtsman has been engaged. And the number of social organizers has been increased from one to three.

(c) Thus much more attention will be paid to the actual construction. The social organizers will have more technical knowledge and will give more guidance. Each of them is being provided with necessary tools and implements, e.g., trolleys, shovels,

picks, manhole and septic tank shutterings. By borrowing these the lane managers will be able to lower the cost of construction and avoid the exorbitant charges of contractors.

(d) It seems that the confidence of the *mohallas* which was shaken by our delinquences has been restored. New requests began to arrive again in August and September. At present nine requests are pending and survey work is being done in several *mohallas*.

In future we will monitor the construction work as carefully as we have monitored the planning and prepare comparative tables.

## 3 Improvement of tubewell drilling

(a) During the last three months we think we have understood the causes of the inefficiency of our drilling programme. They were twofold. In the first place the equipment was faulty and incomplete, and secondly the drillers were lacking in skill. Consequently there were frequent breakdowns and losses. But gradually both the equipment and the skill has been improved. The tables given below indicate the loss of time and money suffered in the process of learning. We hope that the initial cost of research and development has now been paid and henceforth the drilling will proceed more economically. The tables given below should serve as a bench mark.

### (b) Tubewell drilling – cost

---

| Capital expenditure |             |
|---------------------|-------------|
| 1st drilling rig    | Rs. 76,380  |
| 2nd drilling rig    | Rs. 138,937 |
| Other equipment     | Rs. 53,713  |
| Total               | Rs. 269,030 |

### Operational cost March to September 1982

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|           |            |
|-----------|------------|
| Staff     | Rs. 33,573 |
| Operation | Rs. 24,848 |
| Total     | Rs. 58,421 |

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Tubewell drilling — bores

| Number         | Started    | Finished | Remarks             |
|----------------|------------|----------|---------------------|
| Experimental   | March 1982 | 12.4.82  | 71 ft Successful *  |
| Mujahid colony | 13.4.82    | 20.4.82  | 61 ft Successful *  |
| "              | 21.4.82    | 4.5.82   | 65 ft Working       |
| "              | 5.5.82     | 10.5.82  | 60 ft Working       |
| "              | 11.5.82    | 31.5.82  | 75 ft No water      |
| Aligarh colony | 6.6.82     | 27.6.82  | 46 ft Working       |
| Islamnagar     | 28.6.82    | 21.7.82  | 107 ft Successful * |
| Islamnagar     | 26.7.82    | 16.8.82  | 72 ft Successful *  |
| Maynoori Goth  | 20.8.82    | 5.9.82   | 45 ft Working       |
| Mominabad      | 5.9.82     | 16.9.82  | 70 ft No water      |
| Islamnagar     | 20.9.82    | 27.9.82  | 50 ft Working       |

\*Note 1. Successful in reaching good water level, but collapsed on account of delay and mismanagement.

Note 2. Thus out of 11 bores, 5 are in operation, two proved dry and four collapsed due to mismanagement.

(c) Average cost per bore — 1st 6 months

|                                       |  |
|---------------------------------------|--|
| Total bores                           | 11   |
| Operational cost                      | Rs. 58,421                                   |
| Average cost per bore                 | Rs. 5,311                                    |
| Average time per bore                 | $\frac{6}{11}$ month = .54 = 15 days approx. |
| Dry holes                             | 2  |
| Mismanaged                            | 4  |
| Operational wells                     | 5  |
| Loss for dry holes                    | Rs. 10,622                                   |
| Loss for 4 mismanaged holes           | Rs. 21,244                                   |
| Average cost of each operational well | Rs. 11,684                                   |

Let us admit our dismal performance, and hope to achieve better averages in the next six months.

#### 4 Improvement of model dye house

(a) The model dye house in its first phase suffered from the same disabilities as tubewell drilling viz., inexperienced management, lack of skill and good dyes. Customers were disappointed when they found that the work of the model dye house was no better than that of the local dyers. We made strenuous efforts to procure good dyes and raise the standard of skill. During the last two months the dye house, after six months of trial and error, seems to be establishing itself as a useful institution. The goodwill which was lost in May and June has been regained. The old customers have returned and new customers are coming in increasing numbers. Management and technical skills have improved and ample stocks of good dyes have been acquired. We present the cumulative figures of cost, work, customers, income and loss upto August 1982 as a bench mark for measuring future progress. Having consolidated the working of the model dye house we hope to proceed with the improvement of *zari* and the procurement and distribution of silk, and if possible the formation of a sound cooperative of Benarasi artisans.

#### (b) Model dye house — January 1982 to August 1982

|                              |             |
|------------------------------|-------------|
| I Capital expenditure        |             |
| Building                     | Rs. 19,706  |
| Equipment                    | Rs. 11,155  |
| Loan for stocks of dyes etc. | Rs. 79,662  |
| Total                        | Rs. 110,524 |
| II Operational cost          |             |
| Staff                        | Rs. 35,870  |
| Operation                    | Rs. 26,152  |
| Total                        | Rs. 62,022  |
| III Number of hanks dyed     | 467         |
| IV Number of customers       | 167         |
| V Income                     | Rs. 25,118  |
| VI Loss                      | Rs. 36,904  |

#### 5 Expansion of home schools and first aid centres

(a) Unlike the troubles and setbacks of the three programmes described above, our programme of home schools and first aid centres continued to work satisfactorily. Encouraged by the steady work of the girl teachers, and by many requests from other neigh-

bourhoods for similar home schools and first aid centres, we decided to expand the programme. The first necessary step was to recruit OPP's own staff of lady workers. Uptil July we had depended mainly on part time help from Quratul Ain who is community organizer of UNICEF's project in Baldia township. In July Ms. Zareen Majeed who has an MA degree in social work from Karachi University, joined the OPP as manager of women's programme. The department of Population Welfare placed the services of two lady health visitors at our disposal. We also appointed a trained lady teacher. A Suzuki pick-up was made available for these lady trainers' team.

(b) After meeting all the girl teachers and visiting all the home schools and first aid centres, the team decided to arrange refresher training courses both for first aid and the teaching of children, for all the five groups of girl teachers.

(c) The Research Training Institute of Population Welfare department was approached for preparing an authentic booklet on first aid and a safe first aid box. The booklet was translated into Urdu and printed for distribution to the girl teachers. They were given a fresh supply of medicines as specified in the booklet.

(d) These courses generated fresh enthusiasm. The number of girl teachers running home schools increased from 60 to 70 and the number of schools rose to 50.

(e) Then in September 1982 a new training course was started for a 6th group of 20 girls, this time in a Bihari area. Another course for the 7th group will be started in October. We have now with us a long list of requests for such training of girl teachers.

#### 6 New activities for girl teachers

Having established home schools and first aid centres, the girl teachers were ready to start new activities. They have arranged for the inoculation by the lady health visitors of more than two thousand children. For themselves the girl teachers have taken training in home gardening. OPP has supplied them with seeds and manure and some of them are growing vegetables. They have also shown keen interest in sanitation, the construction of septic tank latrines, and underground sewage lines, and the control of mosquitoes and flies by spraying. Again OPP has stocked sprayers and insecticides. The teachers can borrow sprayers and purchase the insecticides at cost price. Some of them have already done so. In Haryana colony when our lady trainers explained the importance of sanitation to a women's meeting and showed slides of diseases caused by filth, the result was quite surprising. We were told by the lane

managers that they had tried in vain to collect the money for gutter lines. Although the maps and plans were prepared many months ago, construction work was postponed in many lanes because the residents withheld their contributions. But, say the managers, the day after the Haryana women had seen the slides, the contributions poured in and the work is now in full swing in lane after lane.

## 7 Women's groups

The girl teachers forming voluntary and non-official cadre for basic education and health in every neighbourhood may become effective agents of change. Recently our lady trainers' team has used them for convening meetings of family women, specially the mothers of the children attending home schools. Uptil now only a few meetings have been held. We will try to organize on a neighbourhood or even lane basis, *khwateen tanzeems* (women's groups). If these groups become stable, if each group is able to throw up a good organizer, if weekly meetings are regularly held, then it may be possible to serve the health interests of the groups through a mobile clinic, and provide useful information about child care, maternity, and family welfare. These possibilities will be explored in the coming months. Very active assistance will be needed from Population Welfare department for providing the necessary services to women's groups.

## 8 Youth clubs

There are many youth clubs in Orangi neighbourhood. We had believed that our male teen-agers are interested only in indoor and outdoor sports. As the OPP does not consider the promotion of sports among its duties, we did not approach the youngsters. But now they have approached us. It seems that we were mistaken in assuming that our boys are indifferent to the serious problems of their neighbourhood. Members of several youth clubs are quite eager to take training in sanitation, home gardening, fly and mosquito control and first aid. Two groups have been trained and more are ready. These young men with their strong bodies, keen minds, and fresh idealism can greatly improve the condition of their lanes. They can assist the lane residents to construct, cheaply and quickly, with their own hands septic tank latrines in their homes. They can assist in the maintenance of sewage lines, in tree planting, home gardening, mosquito control etc. And then, with a happy conscience they may also play cricket and carrom. Incidentally, it was the example of the home schools and first aid centres of the girl teachers which stimulated the youth clubs to get involved.

## 9 Teachers' study circle

Previously we had tried to involve the teachers

of secondary schools in our community programmes. We had suggested to the trustees of Orangi School Foundation that each of their schools should become a centre for teaching the neighbouring communities how to organize sanitation, home schools and first aid centres. We had offered to train selected teachers in these fields. The response to these suggestions was rather ambiguous. But we are aware of the significant role which teachers can play and we are anxious to keep in touch with them. Therefore, recently we have made a different proposal to which the response has been quite positive. The proposal is to establish a study circle. Mr. Reaz Ahmad, who is now our librarian, has called two well-attended meetings of teachers who are willing to become members of this circle. They will read English journals and books procured by the OPP library and review and discuss them in group meetings.

## 10 OPP phase II

(a) OPP has now officially begun its second phase. In July Mr. Burney came from BCCI London on his third visit to the project. He gave assurance of support during the next three years in accordance with the agreement signed between BCCI, UNCHS and the Government of Pakistan. He was satisfied with the direction and pace of progress of the project. However, he wished that other cottage industries, e.g., shoe making, should be supported like the Benarasi weavers.

(b) Mr. Houghton arrived on 10th September 1982 to work as Chief Technical Advisor on behalf of UNCHS. He is familiarising himself with various aspects of the project. His first concern will be to improve its technological component and to introduce closer coordination with the planning of official agencies.

## 11 Public notice

The project has attracted some public attention. Our foremost English daily, *Dawn*, has expressed very generous appreciation in several editorials. Sanitation, water drilling and home school programmes have been shown by Pakistan Television. Many visitors are coming. The director has been invited to speak in several seminars. He has also been given an award by the Rotarians for community service. This public approval is gratifying, but it should not make us forget that our real job is the work on the ground in Orangi, the promotion of neighbourhood organization, the development of models of low cost sanitation, of voluntary cadres for basic education and health etc. The priority of home work should always be kept in view.

## 12 Audit and financial statement

A firm of chartered accountants has completed the audit of OPP's accounts. The financial statements are given below :

| I Receipts                          | April 1980<br>to<br>May 1982 | June, July,<br>August 1982 | Cumulative       |
|-------------------------------------|------------------------------|----------------------------|------------------|
| From BCCI                           | 1,394,220                    | 200,000                    | 1,594,220        |
| Others                              | 70,921                       | 21,916                     | 92,837           |
| <b>Total</b>                        | <b>1,465,141</b>             | <b>221,916</b>             | <b>1,687,057</b> |
| <b>II Disbursements</b>             | <b>1,125,193</b>             | <b>450,756</b>             | <b>1,575,949</b> |
| <b>III Balance 31st August 1982</b> | <b>—</b>                     | <b>111,108</b>             | <b>111,108</b>   |
| <b>Heads of disbursement</b>        |                              |                            |                  |
| OPP staff and contingency           | 220,720                      | —                          | 220,720          |
| OPP office                          | —                            | 36,597                     | 36,597           |
| Budget and accounts                 | —                            | 5,900                      | 5,900            |
| Training and administration         | —                            | 5,400                      | 5,400            |
| Consultants                         | 68,050                       | 6,150                      | 74,200           |
| Meeting and conference              | 4,997                        | 1,769                      | 6,766            |
| Training                            | 41,880                       | 13,912                     | 55,792           |
| Orangi Quarterly                    | 66,100                       | 14,754                     | 80,854           |
| Other publications                  | 17,538                       | 8,998                      | 26,536           |
| Audio visual                        | 12,160                       | 35                         | 12,195           |
| Library and research                | —                            | 7,144                      | 7,144            |
| Demonstration and experiment        | 37,569                       | 2,027                      | 39,596           |
| Sanitation                          | 14,173                       | 18,051                     | 32,225           |
| Water drilling                      | 15,493                       | 37,806                     | 53,229           |
| Mohalla tanzeem                     | —                            | 11,125                     | 11,125           |
| Women's programme                   | —                            | 4,605                      | 4,605            |
| Economic programme                  | 79,727                       | 34,845                     | 114,572          |
| Grant                               | 92,000                       | 1,500                      | 93,500           |
| <b>Total</b>                        | <b>670,400</b>               | <b>210,620</b>             | <b>881,030</b>   |
| <b>Capital expenditure</b>          |                              |                            |                  |
| OPP office                          | 137,838                      | 28,929                     | 166,767          |
| Sanitation                          | 19,932                       | 9,452                      | 29,385           |
| Water drilling                      | 76,002                       | 174,908                    | 250,910          |
| Audio visual                        | 16,275                       | 25                         | 16,300           |
| Others                              | —                            | —                          | —                |
| <b>Total</b>                        | <b>250,048</b>               | <b>213,314</b>             | <b>463,363</b>   |
| Wells                               | 152,440                      | —                          | 152,440          |
| Loan                                | 52,295                       | 26,821                     | 79,116           |
| <b>GRAND TOTAL</b>                  | <b>1,125,193</b>             | <b>450,755</b>             | <b>1,575,949</b> |

## 1 Low-cost lane sanitation

We had described in the eleventh progress report our efforts to improve the low-cost lane sanitation programme. A preliminary evaluation by our consultant, architect Perween Rahman, had revealed some technical and social weaknesses. These have engaged our attention during the last six months and will continue to do so for many more months to come. The problems are indeed very complex, but the popular response indicated by the increasing number of requests from new *mohallas* for surveys and estimates is also apparent. The following table gives the figures upto 31st December 1982.

Low-cost lane sanitation  
October 1981 to December 1982

Table I

|                                     |               |
|-------------------------------------|---------------|
| I Request for survey and estimates: |               |
| Mohallas                            | 30            |
| Lanes                               | 377           |
| II Survey completed:                |               |
| Mohallas                            | 30            |
| Lanes                               | 314           |
| III Plans and estimates supplied:   |               |
| Mohallas                            | 30            |
| Lanes                               | 264           |
| Length rft                          | 97,634        |
| No. of houses                       | 5,499         |
| Estimated cost                      | Rs. 1,810,675 |
| IV Averages:                        |               |
| House area                          | sq. yd 129    |
| Cost per house                      | Rs. 330.00    |
| Cost per sq. yd.                    | Rs. 2.50      |
| Cost per rft                        | Rs. 18.50     |

## 2 Sewerage work in 30 mohallas

A quick tour of the 30 *mohallas* last month revealed the interesting fact that while work has been done in 148 lanes according to the plans supplied by OPP, the people of another 149 lanes have followed their own design, being either too eager to wait or too confident of their own skill. We intend to make a careful study of the sewerage work in these 297 lanes and analyze its technology, its economics and its sociology. Evidently many residents of Orangi are willing to make substantial investment for improvement of lanes. This willingness can be the foundation of a new approach to the development of *katchi abadis*, an approach based on popular participation, financing and management.

Table II - Sewage lines in 30 mohallas

Key

- 1 Mohalla
- 2 Total lanes
- 3 Work according to OPP plan
- 4 Work according to own plan
- 5 Total sewage line lanes
- 6 Unimproved lanes

|                   | 1  | 2  | 3  | 4  | 5  | 6 |
|-------------------|----|----|----|----|----|---|
| Agror colony      | 16 | 16 | —  | 16 | 0  |   |
| Hanifabad         | 79 | 4  | 25 | 29 | 50 |   |
| Haryana colony    | 46 | 11 | —  | 11 | 35 |   |
| Al-Sadaf colony   | 28 | 2  | 9  | 11 | 17 |   |
| Al-Mustafa colony | 8  | 4  | —  | 4  | 4  |   |
| Mujahid colony    | 38 | 38 | —  | 38 | 0  |   |
| Darulsalam        | 5  | 5  | —  | 5  | 0  |   |
| Noor mohalla      | 13 | 4  | —  | 4  | 9  |   |
| Azadnagar         | 5  | 4  | —  | 4  | 1  |   |
| Jhelum colony     | 9  | 9  | —  | 9  | 0  |   |
| Khyber colony     | 16 | —  | —  | —  | 0  |   |
| 1-C               | 42 | 4  | 36 | 40 | 2  |   |
| Aligarh colony    | 32 | 1  | 29 | 30 | 2  |   |
| Sector 5/E        | 31 | 1  | 2  | 3  | 28 |   |
| Mohammadnagar     | 16 | —  | —  | —  | 16 |   |

| 1                   | 2          | 3          | 4          | 5          | 6          |
|---------------------|------------|------------|------------|------------|------------|
| Mominabad           | 52         | 8          | 4          | 12         | 40         |
| Sector 10           | 74         | 7          | 35         | 42         | 32         |
| Alinagar            | 12         | —          | —          | —          | 12         |
| Bijlinagar          | 24         | 8          | —          | 8          | 16         |
| Islamnagar          | 23         | —          | —          | —          | 23         |
| Usmania mohalla     | 15         | —          | —          | —          | 15         |
| Al-Fatah colony     | 35         | 1          | 6          | 7          | 27         |
| Qaide Azam Colony   | 50         | 31         | —          | 31         | 19         |
| Mecca Basti         | 17         | 7          | 3          | 10         | 10         |
| Madina Basti        | NA         | —          | —          | —          | —          |
| Bismillah colony    | 8          | —          | —          | —          | 8          |
| Sector 11/A         | 30         | —          | —          | —          | 30         |
| Gharib Nawaz colony | 12         | —          | —          | —          | 12         |
| Sector 14/C         | NA         | —          | —          | —          | —          |
| Noorani mohalla     | 60         | —          | —          | —          | 60         |
| <b>Total</b>        | <b>796</b> | <b>148</b> | <b>149</b> | <b>297</b> | <b>499</b> |

It is quite obvious that the majority of the lanes, more than 60%, have yet to be improved. But there are signs that they are stirring themselves. OPP has supplied plans and estimates for 164 lanes and it is hoped that in spite of delay, at least some if not all of the outstanding 115 plans will be implemented. Meanwhile new requests are coming every week.

### 3 Sanitation II

In view of the increasing number of requests from widely scattered *mohallas* and lanes, we decided to set up another small office in the Bihari area. Thus after October 1982 there are now two teams for the sanitation programme. Each team consists of a manager, a surveyor, a draughtsman, and assistants. The first team has been working since July 1982 in 30 *mohallas* (named sanitation I) and the second team has started working in the Bihari areas from 15th October 1982 (named sanitation II). The progress in Sanitation II is given below:

Table: Progress in sanitation II  
15th October 1982 to 31st December 1982

|  |             |
|--|-------------|
| <b>I Request for plans:</b>              |             |
| Mohallas                                 | 3           |
| Lanes                                    | 35          |
| <b>II Survey completed</b>               |             |
|  | 28 lanes    |
| <b>III Plans and estimates supplied:</b> |             |
| Lanes                                    | 28          |
| Length in rft                            | 8803        |
| No. of houses                            | 558         |
| Estimated cost                           | Rs. 121,415 |

### IV Averages:

|                                   |            |
|-----------------------------------|------------|
| House area (total 60,040 sq.yds.) |            |
| Average 107 sq.yd.                |            |
| Cost per house                    | Rs. 218.00 |
| Cost per sq.yd.                   | Rs. 2.02   |
| Cost per rft                      | Rs. 13.8   |

### 4 Cost and benefit

Our financial statement shows that the total expenditure on organizing the sanitation programme, both its social and technical side, has been as follows:

|  |                   |
|--|-------------------|
| <b>Sanitation I</b>                                    |                   |
| Upto May 1982  | Rs. 14,174        |
| June to 31st Dec. 1982                                 | Rs. 32,053        |
| <b>Total</b>   | <b>Rs. 46,227</b> |
| <b>Sanitation II</b>                                   |                   |
| Oct. 1982 to 31st Dec. 1982                            | Rs. 17,430        |
| <b>Capital expenditure — Instruments and equipment</b> |                   |
| Sanitation I   | Rs. 32,565        |
| Sanitation II  | Rs. 13,875        |

Here a question may well be raised: What has been achieved by the expenditure of 1.1 lakh rupees? For a truthful answer a careful study is required of the work that has been done or is being done by the people in the lanes. We need to know the changes in attitudes and opinions, the quality of popular management, and the volume of local resources mobilized in the comparatively short period of a few months. Therefore we are planning to prepare the first annual report of the low-cost sanitation programme which would contain a detailed evaluation of the sociology, the economics and technology of it.

### 5 Need for coordination

While planning at the lane level is spreading around, no progress could be made in coordinating it with the improvement of external drains which are in a deplorable condition — meandering, stagnant, encroached upon, and dumped with garbage. The expectation that the Orangi Board, set up last year, will make and implement master plans remains to be fulfilled. Very few meetings have been held and overall planning has not even been discussed. Only some surface drains are being constructed on an adhoc basis. We have contacted the KMC authorities, but they are so busy with crisis management that meetings and visits fixed before hand are abruptly postponed. We have no alternative except to wait till

They can find time to introduce the necessary co-ordination between the internal development of lane sanitation and the external development of the large drains.

## 6 Suspension of tubewell drilling

Thus we are consolidating and expanding the sanitation programme. However we have decided to suspend the tubewell drilling programme for a very fortunate reason: water from the Hub dam has arrived in Orangi. Or almost arrived. People are suddenly convinced that they would soon have ample supplies of clean, soft Hub water and no one cares anymore for the brackish trickle from a tubewell. The demand which previously was quite urgent disappeared suddenly in October. Now no request for drilling is forthcoming. Let us hope that the people of Orangi are not being too optimistic, and that our suggestion that river water still needs to be supplemented by tubewell water will prove superfluous.

Below is a review of two years of well digging and tubewell drilling.

- (a) Contractors' wells: From December 1980 to June 1981, thirteen wells were constructed for use in mosques at a total of Rs. 129,570.
- (b) Engineers' wells: From July 1981 to March 1982 eight more wells were dug or improved under the direct supervision of OPP engineer at a cost of Rs. 22,870.

(c) From March 1982 to December 1982, fifteen bores were drilled by OPP rigs at a total cost of Rs. 117,034 — staff salaries Rs. 69,953, operation Rs. 47,081.

(d) Of the 36 wells, five proved dry, five or six have inadequate water, and some were too salty. But approximately half were in regular use.

(e) OPP has complete equipment for two drilling rigs, including a trolley and a jeep — total cost Rs. 305,104, which we suppose can be sold without loss.

(f) A good team of drillers, foreman and manager has been trained at considerable expense and their services are available for drilling elsewhere, specially in rural areas.

| (g) Total expenditure         | Rs.            |
|-------------------------------|----------------|
| 13 contractors' wells         | 129,570        |
| 8 engineers' wells            | 22,870         |
| 15 drilled tubewells          | 117,034        |
| 36 wells total expenditure    | 269,474        |
| 2 drilling rigs and equipment | 305,104        |
| <b>Total investment</b>       | <b>574,578</b> |

Although the experiment has come to an abrupt end, the experience gained in two years may be used later on, or in rural areas.

## 7 Home schools — Teachers and students : The position on 31st December is indicated below:

| Group    | 1   | 2  | 3   | 4   | 5   | 6   | 7  | Total |
|----------|-----|----|-----|-----|-----|-----|----|-------|
| Teachers | 11  | 4  | 16  | 10  | 13  | 17  | 10 | 81    |
| Schools  | 8   | 2  | 13  | 10  | 9   | 13  | 7  | 62    |
| Students | 152 | 84 | 165 | 137 | 124 | 186 | 95 | 943   |

These figures are based on a careful survey. They indicate that the numbers fluctuate from month to month. There is a high rate of dropouts. Thus only 81 of the 130 girls trained are working as

teachers. Many students left after attending for a few weeks as their parents were unwilling to pay even a token fee. But there were also some new enrolment. The position with regard to fees is as follows:

| Group               | Payment of fees |    |     |     |     |     |    | Total |
|---------------------|-----------------|----|-----|-----|-----|-----|----|-------|
|                     | 1               | 2  | 3   | 4   | 5   | 6   | 7  |       |
| Total students      | 152             | 84 | 165 | 137 | 124 | 186 | 95 | 943   |
| Fee-paying students | 132             | 60 | 149 | 120 | 114 | 131 | 93 | 799   |
| Free                | 20              | 24 | 16  | 17  | 10  | 55  | 2  | 144   |



It is encouraging to note that 84% of the children are willing to pay fees, and it is even more encouraging to note that the girl teachers are willing to educate 16% without any fees.

On enquiry as to how many of the students are boys and how many girls, and further how many of these were not going to any school previously, the following picture has emerged:

| Groups           | 1   | 2  | 3   | 4   | 5   | 6   | 7  | Total |
|------------------|-----|----|-----|-----|-----|-----|----|-------|
| Total students   | 152 | 84 | 165 | 137 | 124 | 186 | 95 | 943   |
| Boys             | 83  | 33 | 82  | 66  | 55  | 97  | 54 | 470   |
| Girls            | 69  | 51 | 83  | 71  | 69  | 89  | 41 | 473   |
| School-going     | 91  | 10 | 76  | 80  | 24  | 33  | 34 | 348   |
| Non school-going | 61  | 74 | 89  | 57  | 100 | 153 | 61 | 595   |

Though the sample is small and the trends are still uncertain, the above figures may indicate that the informal home schools and part-time girl teachers could enable low-income families to provide elementary education to their children who were not going to school. The fact that 348 school-going children (36% of the total) are also coming for coaching to the informal home schools, is a sad commentary on the quality of teaching in the formal schools.

## 8 Rethinking

In our last report we had mentioned two new programmes, women's clubs and teachers' study circle. During the last three months the response to these programmes was far from satisfactory. Women who were contacted showed little interest in learning about prevention of disease. They only wanted medical service at their homes. They seemed allergic to the concept of group meetings and associations. Teachers' meetings could not be convened for other reasons. We are doing some fresh thinking about women's programme and about extension programmes through schools. If this thinking becomes fruitful, it will be presented in the next report.

## 9 Benarasi weavers' programme

Position on 31st December 1982  
January 1982 - December 1982

|                             |                    |
|-----------------------------|--------------------|
| <b>I Capital investment</b> |                    |
| Building                    | Rs. 19,707         |
| Equipment                   | Rs. 11,202         |
| Stock of dyes etc.          | Rs. 178,209        |
| <b>Total</b>                | <b>Rs. 209,118</b> |
| <b>II Operation</b>         |                    |
| Staff                       | Rs. 68,445         |
| Operation                   | Rs. 50,978         |
| <b>Total</b>                | <b>Rs. 119,423</b> |

|     |                               |            |
|-----|-------------------------------|------------|
| III | Number of hanks dyed          | 811        |
| IV  | Number of permanent customers | 147        |
| V   | Income                        | Rs. 43,888 |
| VI  | Loss                          | Rs. 75,544 |

Obviously the model dye house has incurred a big loss. Should it be regarded as a necessary cost of research, training and organization? What is the recompense for the loss? If we are not deceiving ourselves, perhaps the following:

- At last the colours are fast and attractive, definitely superior in quality to the colours of the smuggled Indian saris.
- There are now 147 regular customers whose quality products will soon make an impact on the market.
- The goodwill of the dye house is increasing as proved by the number of hanks brought by customers. Their number rose to 102 during December, compared to about 50 in previous months.
- Some attempts are being made to arrange for marketing of quality products. Many meetings are being held.

As yet, however, even the regular customers are indifferent to any kind of cooperative effort. For us it is a great disappointment. It is by no means our intention to provide a permanent subsidy to a group of Benarasi weavers. Perhaps a way out of this impasse may be found in the next few months. We are quite worried by the present situation.

## 10 Financial statement

| Balance sheet on 31st December 1982<br>(From April 1980 to December 1982) |                  | II Disbursement                   |                  |
|---|------------------|-----------------------------------|------------------|
| Heads   | Amount           |                                   |                  |
| <b>I Receipt</b>  | <b>Rs.</b>       | <b>Non-capital expenditure</b>    | <b>1,236,303</b> |
| BCCI  | 2,394,220        | Capital expenditure               | 846,814          |
| Public contribution — Well  | 61,000           | Loans                             | 175,486          |
| Orangi Quarterly  | 3,904            | Advances                          | 2,118            |
| Refund of loan  | 35,879           |                                   |                  |
| Other refunds   | 1,374            | <b>Total</b>                      | <b>2,260,721</b> |
| Others  | 3,500            |                                   |                  |
| <b>Total</b>  | <b>2,499,877</b> | <b>III Bank and cash balances</b> |                  |
|   |                  | Bank                              | 229,981          |
|   |                  | Imprest                           | 9,174            |
|   |                  | <b>Total</b>                      | <b>239,155</b>   |

### DISBURSEMENT

| I Non-capital expenditure        | Apr. 1980—May 1982 | Jun. 1982—Dec 1982 | Total            |
|----------------------------------|--------------------|--------------------|------------------|
| OPP office and contingency       | 220,720            | —                  | 220,720          |
| OPP office                       | —                  | 70,737             | 70,737           |
| Budget and accounting            | —                  | 13,100             | 13,100           |
| Training and administration      | —                  | 12,600             | 12,600           |
| Consultant                       | 68,050             | 46,950             | 115,000          |
| Meeting and conference           | 4,997              | 3,889              | 8,886            |
| Training                         | 41,880             | 22,972             | 64,852           |
| Orangi Quarterly                 | 66,100             | 31,515             | 97,615           |
| Other publication                | 17,538             | 20,886             | 38,424           |
| Audio visual                     | 12,160             | 701                | 12,861           |
| Library and documentation        | —                  | 14,097             | 14,097           |
| Demonstration and experiment     | 37,569             | 19,418             | 56,988           |
| Sanitation I                     | 14,173             | 32,053             | 46,227           |
| Sanitation II                    | —                  | 17,430             | 17,430           |
| Water drilling                   | 15,493             | 117,033            | 132,526          |
| Mohalla tanzeem                  | —                  | 31,775             | 31,775           |
| Women's programme                | —                  | 17,605             | 17,605           |
| Economic programme               | 79,727             | 76,656             | 156,383          |
| Insurance                        | —                  | 4,520              | 4,520            |
| Grants                           | 92,000             | 10,150             | 102,150          |
| UNCHS                            | —                  | 1,809              | 1,809            |
| Youth Club                       | —                  | —                  | —                |
| <b>Total</b>                     | <b>670,409</b>     | <b>565,893</b>     | <b>1,236,303</b> |
| <b>II Capital expenditure</b>    |                    |                    |                  |
| OPP office                       | 137,838            | 105,110            | 242,948          |
| Sanitation I                     | 19,932             | 12,632             | 32,565           |
| Sanitation II                    | —                  | 13,875             | 13,875           |
| Water drilling                   | 76,002             | 229,102            | 305,104          |
| Audio visual                     | 16,275             | 78,235             | 94,510           |
| Wells                            | 152,440            | 171                | 152,611          |
| UNCHS                            | —                  | 5,200              | 5,200            |
| <b>Total</b>                     | <b>402,488</b>     | <b>444,325</b>     | <b>846,814</b>   |
| <b>III Loans</b>                 | <b>52,295</b>      | <b>123,191</b>     | <b>175,486</b>   |
| <b>IV Advances</b>               | <b>—</b>           | <b>2,118</b>       | <b>2,118</b>     |
| <b>Grand Total (I+II+III+IV)</b> | <b>1,125,193</b>   | <b>1,135,528</b>   | <b>2,260,721</b> |

11 Audit report

(8809 nonM - yauisid) report progress 181

Messrs. Hyder & Company have audited OPP accounts from the beginning in April 1980 to 31st May 1982. Copies of the auditor's report are available in the OPP office for public inspection. A statement of receipts and payments as prepared by the auditors for the two years, April 1980 to 31st May 1981 and June 1981 to 31st May 1982 is reproduced below. Detailed sheets can be inspected in the office.

| Heads                        | 1981           | 1982             | Balance          |
|------------------------------|----------------|------------------|------------------|
| <b>Receipts</b>              |                |                  |                  |
| Donation from BCCI           | 494,220        | 900,000          | 1,394,220        |
| Refund loan from dye house   | —              | 16,921           | 16,921           |
| Contribution for wells       | 45,000         | 9,000            | 54,000           |
| <b>Total</b>                 | <b>539,220</b> | <b>925,921</b>   | <b>1,465,141</b> |
| <b>Payments</b>              |                |                  |                  |
| Contingencies and staff      | 62,915         | 157,805          | 220,720          |
| OPP consultants              | 27,500         | 40,550           | 68,050           |
| Meeting and conference       | 341            | 4,656            | 4,997            |
| Training                     | 630            | 41,250           | 41,880           |
| Orangi Quarterly             | 18,900         | 47,200           | 66,100           |
| Other publication            | 830            | 16,708           | 17,538           |
| Audio visual                 | —              | 12,160           | 12,160           |
| Demonstration and experiment | 25,600         | 11,969           | 37,569           |
| Engineering: Sanitation      | —              | 14,173           | 14,173           |
| Water drilling               | —              | 15,493           | 15,493           |
| Economic programme           | —              | 79,727           | 79,727           |
| Grant                        | 51,050         | 40,950           | 92,000           |
| Capital expenses             | 121,664        | 128,384          | 250,048          |
| Wells                        | 129,570        | 22,871           | 152,441          |
| Loan dye house               | —              | 52,295           | 52,295           |
| Cash in hand                 | —              | 2,474            | 2,474            |
| Cash at bank BCCI            | —              | 101,386          | 101,386          |
| Cash at bank NBP (256)       | —              | 14,010           | 14,010           |
| Cash at bank NBP (280)       | —              | 21,590           | 21,590           |
| Cash at bank NBP (282)       | —              | 200,485          | 200,485          |
| <b>Total</b>                 | <b>439,000</b> | <b>1,026,141</b> | <b>1,465,141</b> |

# 13th progress report (January - March 1983)

## 1 End of third year

On 31st March 1983 OPP has completed three years. Looking back we can say that the first year was spent mainly in observation and investigation; the second year in selection and experimentation; and the third year in consolidation and expansion. Two months ago, giving my assessment of the present position of OPP to the President of BCCI, I pointed out its four assets:

- (i) It has built a strong base of operation.
- (ii) It has gathered a group of workers, social and technical, whose competence and commitment is increasing steadily.
- (iii) It has established widespread and growing contacts and goodwill among the Orangi residents and activists, specially at the lane level.
- (iv) Through long and attentive association with the local people, it has acquired a realistic understanding of some problems and their viable solutions.

I further pointed out that, in my judgment, with these assets OPP can work very effectively if adequately supported during the next few years. The President gave assurance of support.

## 2 Nature of OPP's work

What would be the nature of this work? At the very beginning it was recognized that OPP, as a non-government organization without any power or authority, should not compete with official agencies. It could not provide parallel services, municipal, clinical or educational. It should not pretend to be a settlement agency, a mini-KDA or KMC. Its main purpose was to promote voluntary association, non-official organization, popular participation, which would supplement and enlarge the development efforts of

official agencies. Its designation as a pilot project emphasized its research approach to discover viable patterns of popular organization. After three years of actual experience, the project's objectives as well as its methods and functions are now seen more clearly.

## 3 Work during the 4th year

The broad perspective will be twofold: to promote *mohalla tanzeem* (lane/neighbourhood groups) and cooperative groups for economic activities.

More specifically the *mohalla tanzeem* will start with the construction of low-cost sanitation by the lane residents and will include the training of women's groups for hygiene, prevention of disease, nutrition and child care. Youth clubs will be given training in maintenance of sanitation and home gardening. Training will also be provided to educated girls or housewives to set up non-formal home schools and first aid centres in the organized lanes. Thus the *mohalla* will endeavour to build a self-sustained system to fulfil some basic requirements which at present are sadly neglected in the *katchi abadis*. The system while encouraging neighbourly collaboration will also supplement and reinforce official services.

In the third year the pattern of *mohalla tanzeem*, with its components of lane sanitation, women's programmes, home schools and first aid centres, has grown quite popular. The message has become quite clear. It will now be taken to more and more *mohallas* and lanes.

## 4 Economic groups and cooperative housing

Along with *mohalla tanzeem*, OPP in its fourth year will try to promote the formation of cooperative groups for economic activities. Uptil now we have given only marginal attention to this important field, and our efforts have not shown much results. But during the coming months, following our small-scale experimental method, we will start organizing a few

economic groups. We think that the bitter experience of working with the Haryana ironmongers and the Benarasi weavers has taught us some useful lessons. We hope that our future promotional attempts will be more fruitful. We also want to undertake, again as an experiment, a small project of cooperative housing in Mansooranagar where one hundred families newly arrived from Bangladesh are living in improvised *jhuggis*.

## 5 Management and programmes

We have defined the objectives and goals for the fourth year. Now let us outline the management and programmes. OPP will have the following:

### I — General sections

- Budget and accounts
- Training and administration
- Documentation
- Research and evaluation
- Publication and Orangi Quarterly

### II — Special programmes I

- Mohalla tanzeem
- Low-cost sanitation
- Women's groups
- Home schools and first aid centres
- Youth clubs

### III — Special programmes II

- Economic cooperative groups
- Cooperative housing projects

## 6 Supporting teams

Lane groups — sanitation managers, women's groups, youth clubs, home schools, first aid centres — or cooperative economic groups require support from a central organization for sustained growth and vitality. In the fourth year OPP is properly qualified to extend that support with its teams of social organizers and technical experts. OPP's managers of *mohalla tanzeems*, of sanitation etc. have learnt to communicate with the lane residents, to understand their problems and to persuade and mobilize them. OPP's technical experts, working closely with social organizers, have concentrated on research for finding acceptable solutions for local problems and propagating these findings through numerous extension leaflets. For low-cost sanitation OPP is extremely fortunate in having Professor Arif Hasan as consultant. He gives a lot of his time to research in design and implementation, and also constantly trains and guides our architect Perween Rahman, and the surveyors and draughtsmen. The supporting team for

women's programmes will soon become quite strong.

## 7 Reporting

In the fourth year OPP's reporting will be more detailed. Our documentation section as well as the research and evaluation section has been enlarged and strengthened. More and more case histories of actual work by lane groups and economic groups and the profiles of the chief workers will be prepared. The quarterly English report, which until now has been summarily written by the Director only, will in future consist of several parts. The low-cost sanitation report, for instance, will be written by the architect and contain professional details. Mr. Sami Mustafa has agreed to work as a consultant to guide the OPP's monitoring and reporting. Orangi Quarterly, which now has a circulation of two thousand copies, will become more interesting on account of the sociological significance of case histories and profiles and the economic significance of low-cost sanitation and cooperative groups and cooperative housing projects.

## 8 Separation from UNCHS

The United Nations Centre for Human Settlements (Habitat) had signed an agreement with BCCI to collaborate with OPP. Mr. Houghton arrived in September 1982 as Chief Technical Advisor. He claimed that henceforth UNCHS was the executive agency and OPP's director should follow the instructions of the CTA. In January 1983 he wrote an appraisal of the OPP's approach and requested the BCCI's President to let the UNCHS set up a project in Orangi separately from OPP. I gave my comments on this appraisal. The President then arranged the separation. There will now be two projects in Orangi sponsored by BCCI: the three year old OPP which will follow its own approach, and a new project with UNCHS as the executive agency. The new project will receive two million dollars from the BCCI in three years, while OPP will receive a small annual allocation in rupees. OPP will be a purely Pakistani project, characterized by Pakistani austerity and guided by Pakistani experts. Simultaneously the people of Orangi will also have the benefit of another project, characterized by UN magnificence and guided by foreign experts.

## 9 Change in economic programme

### (i) Handing over of model dye house

Another highlight of the last quarter was our decision to hand over the model dye house to the Benarasi weavers. OPP has demonstrated, after investing much time, labour and money how quality control of colours can be ensured. But the Benarasi weavers showed not the least inclination towards

self-supporting cooperative action. The model dye house was in danger of becoming a permanently subsidized institution, a parasite on OPP. We therefore handed it over to the five weavers who had been operating it for a year and were thoroughly trained. We must acknowledge our failure. Although we succeeded technically, we failed miserably in achieving the social and economic objective of cooperative group action.

(ii) New cooperative groups

In the light of our experience with the Benarasi weavers, we have changed our approach. We still intend to promote cooperative economic groups but in a different manner. Three such groups have already been organized:

- (a) Cooperative consumer goods purchase group of OPP's employees. They are using a portion of their provident fund for monthly purchases at wholesale prices of items like flour, rice, lentils, tea, milk powder, soap etc.
- (b) A women's cooperative group for making garments. These women are mostly recent immigrants from Bangladesh.

- (c) A leather workers' cooperative group consisting of five small workshop owners who have pooled their capital for joint purchase of raw materials.

The working of these groups will be described in detail in the next report and in the Orangi Quarterly.

## 10 Sanitation and women's programme

During the last three months the low-cost sanitation programme had expanded in scope and area. Designs of septic latrines and manholes have been improved and their costs lowered. Plans and estimates for some external drains have been prepared at the request of the circle's councillors. One new centre was opened in Faisal Chawk. Members of youth clubs were trained for survey work of their *mohalla* under the able guidance of Mr. Mobin Qureishy. A great deal of voluntary work is being undertaken by lane residents. The women's programme and home schools and first aid centres are being integrated with the sanitation. These developments are described in part II of this report by Perween Rahman, now OPP's Joint Director (Technical) and Zareen Majeed, Manager, women's programme.

## 11 Financial statement

### Balance sheet on 31st March 1983

|                                  |                               | Apr. 1980—May 1982 | Jun. 1982—Mar. 1983 | Total     |
|----------------------------------|-------------------------------|--------------------|---------------------|-----------|
| <b>I Opening balance</b>         |                               |                    |                     |           |
|                                  | Bank                          | —                  | 337,472             | —         |
|                                  | Cash                          | —                  | 2,475               | —         |
|                                  | Sub-total                     | —                  | 339,947             | —         |
| <b>II Receipt</b>                |                               |                    |                     |           |
|                                  | BCCI                          | 1,394,220          | 1,400,000           | 2,794,220 |
|                                  | Public contribution for wells | 54,000             | 3,000               | 57,000    |
|                                  | Orangi Quarterly              | —                  | 6,098               | 6,098     |
|                                  | Refund of loan                | 16,921             | 32,429              | 49,350    |
|                                  | Other refunds                 | —                  | 1,374               | 1,374     |
|                                  | Others                        | —                  | 3,500               | 3,500     |
|                                  | Sub-total                     | 1,465,141          | 1,446,401           | 2,911,542 |
| <b>III Disbursement</b>          |                               |                    |                     |           |
|                                  | Non-capital expenditure       | 670,409            | 885,275             | 1,555,686 |
|                                  | Capital expenditure           | 402,488            | 644,185             | 1,046,674 |
|                                  | Loans                         | 52,295             | 123,191             | 175,486   |
|                                  | Advances                      | —                  | 263                 | 263       |
|                                  | Sub-total                     | 1,125,193          | 1,652,915           | 2,778,109 |
| <b>IV Bank and cash balances</b> |                               |                    |                     |           |
|                                  | Bank                          | 337,471            | 129,436             | 129,436   |
|                                  | Cash                          | 2,475              | 3,996               | 3,996     |
|                                  | Sub-total                     | 339,947            | 133,433             | 133,433   |

## DISBURSEMENT

Apr. 1980—May 1982

Jun. 1982—Mar. 1983

Cumulative

|                                       | Apr. 1980—May 1982 | Jun. 1982—Mar. 1983 | Cumulative       |
|---------------------------------------|--------------------|---------------------|------------------|
| <b>Non-capital</b>                    |                    |                     |                  |
| OPP office and contingencies          | 220,720            | —                   | 220,720          |
| OPP office                            | —                  | 129,195             | 129,195          |
| Budget and accounts                   | —                  | 35,500              | 35,500           |
| Training and administration           | —                  | 46,000              | 46,000           |
| Research and evaluation               | —                  | 6,800               | 6,800            |
| Library and documentation             | —                  | 20,025              | 20,025           |
| Meeting and conferences               | 4,998              | 6,087               | 11,085           |
| OPP consultant                        | 68,050             | 53,550              | 121,600          |
| Demonstration and experiment          | 37,569             | 47,589              | 85,158           |
| Training                              | 41,880             | 26,345              | 68,225           |
| Other publications                    | 17,538             | 27,330              | 44,868           |
| Orangi Quarterly                      | 66,100             | 45,991              | 112,091          |
| Audio visual                          | 12,160             | 2,508               | 14,668           |
| Sanitation I                          | 14,173             | 60,641              | 74,815           |
| Sanitation II                         | —                  | 38,009              | 38,009           |
| Sanitation III                        | —                  | 3,000               | 3,000            |
| Mohalla tanzeem                       | —                  | 49,775              | 49,775           |
| Women's programme                     | —                  | 25,555              | 25,555           |
| Youth club                            | —                  | 1,853               | 1,853            |
| Water drilling                        | 15,493             | 126,941             | 142,434          |
| Economic programme                    | 79,727             | 118,146             | 197,873          |
| (a) Haryana motor parts manufacturers | 4,500              | —                   | 4,500            |
| (b) Benarasi weavers' programme       | 75,227             | 92,146              | 167,373          |
| (c) Women's worker cooperative group  | —                  | 10,000              | 10,000           |
| (d) Leather worker cooperative group  | —                  | 10,000              | 10,000           |
| (e) Fret work                         | —                  | 6,000               | 6,000            |
| Grant                                 | 92,000             | 6,000               | 98,000           |
| (a) All Orangi United Federation      | 80,300             | —                   | 80,300           |
| (b) Social work department            | 9,000              | —                   | 9,000            |
| (c) Bazam Arbab Sukhan                | 2,700              | 6,000               | 8,700            |
| UNCHS                                 | —                  | 2,009               | 2,009            |
| Insurance                             | —                  | 6,421               | 6,421            |
|                                       | <b>Grand total</b> | <b>670,409</b>      | <b>885,275</b>   |
| <b>Capital expenditure</b>            |                    |                     |                  |
| OPP office                            | 137,838            | 214,832             | 352,670          |
| Sanitation I                          | 19,932             | 16,190              | 36,123           |
| Sanitation II                         | —                  | 20,080              | 20,080           |
| Sanitation III                        | —                  | 1,215               | 1,215            |
| Water drilling                        | 76,002             | 226,887             | 302,889          |
| Audio visual                          | 16,275             | 159,610             | 175,885          |
| UNCHS                                 | —                  | 5,200               | 5,200            |
| Wells                                 | 152,440            | 171                 | 152,611          |
| Loans                                 | 52,295             | 123,191             | 175,486          |
| Advances                              | —                  | 263                 | 263              |
|                                       | <b>Total</b>       | <b>767,640</b>      | <b>1,222,424</b> |

## Part II

### 1 Low-cost lane sanitation programme:

#### Research

##### (a) pre-cast manholes

Since February this year we had been involved in the production of pre-cast manhole and septic tank, but we had to abandon the experiment of pre-cast elements due to the following reasons: The transportation of pre-cast manhole from *thalla* (casting yard) to site involved risk of breakage. Storage at *thalla* was not available immediately and the *thallowallas* were apprehensive to run the system on a minimum profit basis.

As a result of the failure of pre-cast manholes we have decided to cast manholes at site. By making concrete septic tanks/manholes we would eliminate the role of masons. For quality, even if a mix of 1:8 is used in the cast in-situ manholes, it would be superior to block masonry work, plus the cost would be far less. OPP supplies the shutterings for these on-site casting.

##### (b) Manhole/septic tank cast at site (in-situ)

Therefore, we are now advocating the construction of concrete cast in-situ septic tanks. Shutterings have already been supplied to the lane managers in two areas, viz., Mujahid colony and Husainabad. 5 septic tanks as per OPP design have been cast in Husainabad whereas in Mujahid colony 9 septic tanks have been made, 7 of block masonry and 2 of concrete (1:8 mix). The cost that has recurred is approximately Rs. 160.00 complete with cover (see table I).

##### (c) Use of septic tanks in place of manholes

This is a new system. The need for it has arisen due to some lanes in sanitation II being very narrow, about 4' to 8' wide. The space is tight for the construction of the main line together with individual septic tanks.

The idea of having only the septic tank and connecting it through T-pipes was initially put forward



*Human excreta flowing down the side wall of the house into the lane.*





*A main thorough-fare in Orangi.*

by sanitation II manager Mr. Riaz Ahmed and approved by our technical consultant Mr. Arif Hasan.

## 2 Extension

### (a) Models of integrated system

We have now got plastic models showing the total integrated system — from latrine to the main line—in order to make our extension work more effective. The complete set of models is to be distributed to each social worker in all three centres for on-site demonstration. In four meetings in Husainabad, Bihari area, Faisal Chawk and Mujahid colony, the integrated models have been demonstrated. The result has been that the people have come to understand the working of the underground sewerage system better.

### (b) Exchange visits — Friday campaigns

To see something that has already been implemented is the best means of understanding its needs and functioning. Therefore we have started a programme of exchange visits between various areas of Orangi. The people of different areas are taken to lanes in which sanitation work has been done as per our design and are functioning well. Here through on-site demonstration of work already done and discussion with our social workers as well as people of the respective lanes who have done the work, the visitors are motivated. This programme is known as *Juma muhim* (Friday campaign) and already 4 such campaigns have taken place. The results are encouraging.

### (c) Integration with women's programme

In the past, women's programme was in isolation to sanitation. The response was not encouraging and it would have taken quite some time to organize and sink in the purpose of our programme. We felt that since sanitation programme in lanes were being implemented quite successfully, the people have become aware of the practicality of the programme. Thus introducing another programme in the same lanes seemed logical from the point of view of acceptability.

In two areas women's programme has commenced this month, integrated with the sanitation programme. There has been an encouraging response, the organization has been easy, and this has been due to the fact that the women have the support of their men. The programme of sanitation in areas where women's programme has commenced is expected to accelerate as far as the aspect of individual house connection is concerned. This is due to the basic training given to the women with regards to the importance of the septic tank and T-pipe connection.

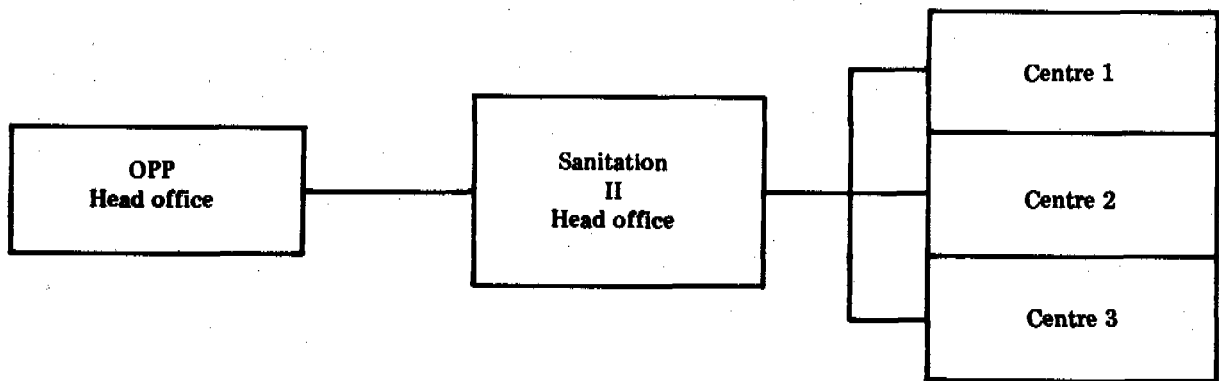
### (d) And youth clubs

This programme, too, has been integrated with the sanitation programme to give it further strength and viability. In areas where our lane sanitation system has been successful, the youth are imparted basic training on gardening, cleanliness, etc.

Contacts are being made. As yet no organized group has been formed, but we hope to have some concrete results by next month.

## 3 New organization: Community centres

In sanitation II the area is very large. Due to this a lot of problems are being faced in terms of contacts with people. Therefore, the idea of decentralization has been put forth and the area has been divided into three centres: (1) at Makhdoomia Secondary School; (2) at Faran High School; and (3) at Azad Sporting Club. The functions of these centres are to provide contact place for people; provision of information and tools to the people in connection with OPP programmes; training of people for relevant programmes; receiving of applications from people for laying sewage lines in their lanes; and finally, for directing these cases to sanitation II office for further action. The following diagram gives an idea of the decentralization of functions of sanitation II.



#### 4 Progress of work

##### (a) Supervision and feedback

Development work in the lanes is going on at an increasing rate. The standard is improving; strict and close supervision and monitoring of work is being kept.

Table III shows the amount of work done and through report on progress one can get an idea of the quality of work and social and economic factors involved.

The process of feedback through maintaining up-to-date record of reports and results of site ins-

pection, interviews of managers for actual estimate is being strengthened and made systematic by means of charts, files and slides.

##### (b) Acceptance of septic tank

Some new developments have taken place, e.g., the construction of septic tanks with T-pipe. Finally we have been able to satisfy the people as to the importance of the interceptor chamber and the T-pipe connection. 6 septic tanks have been constructed in Mujahid colony with T-pipe connection, 2 septic tanks with T-pipe in Haryana, 2 soakpits with T-pipe in Haryana, and 5 septic tanks with T-pipe in Husainabad.

(c) TABLE I: Cost of septic tank (February—March 1983)

| Size — With blocks           | Blocks (Rs) | Cement (Rs) | Bajri and sand (Rs) | T-pipe (Rs) | Labour (Rs) | Total (Rs) |
|------------------------------|-------------|-------------|---------------------|-------------|-------------|------------|
| 2'6" x 1'6" x 4'6"           | 50          | 60          | 25                  | 21          | 50          | 206        |
| 2' x 1'6" x 4'6"             | 50          | 65          | 25                  | 21          | 55          | 216        |
| 1'5" x 2'7" x 4'3"           | 60          | 60          | 25                  | 21          | 50          | 216        |
| 3' x 1'7" x 4'8"             | 60          | 65          | 25                  | 21          | 50          | 221        |
| 3' x 1'7" x 4'4"             | 50          | 65          | 25                  | 21          | 50          | 221        |
| Not available                | 50          | 60          | 25                  | 21          | self done   | 156        |
| "                            | 50          | 65          | 25                  | 21          | 50          | 221        |
| <b>Cast with shutterings</b> |             |             |                     |             |             |            |
| 2' x 2' x 4'                 | —           | 65          | 50                  | 21          | 30          | 166        |
| 3' x 1'7" x 4'8"             |             | 65          | 50                  | 21          | self done   | 136        |
| 2'4" x 1'5" x 2'10"          |             | 65          | 50                  | 21          | "           | 136        |
| 2' x 2' x 3'                 |             | 65          | 50                  | 21          | "           | 136        |
| 2' x 2' x 3'                 |             | 65          | 50                  | 21          | "           | 136        |

(d) As we had indicated in our previous progress report, we have been putting great efforts in improving our sanitation system by emphasizing upon the lane residents that they should follow our ins-

tructions carefully. The response and the results have been very encouraging. The following table II reflects the large number of requests that have been coming to our office.

TABLE II: Low-cost sanitation

| Heads                                       | October 1981<br>to<br>December 1982 | January 1983<br>to<br>March 1983 | Cumulative |
|---|-------------------------------------|----------------------------------|------------|
| <b>Sanitation I</b>                         |                                     |                                  |            |
| <b>I Requests for survey and estimates:</b> |                                     |                                  |            |
| Mohallas                                    | 30                                  | 11                               | 41         |
| Lanes                                       | 377                                 | 36                               | 413        |
| <b>II Survey completed:</b>                 |                                     |                                  |            |
| Mohallas                                    | 30                                  | —                                | —          |
| Lanes                                       | 314                                 | 42                               | 356        |
| <b>III Plans and estimates supplied:</b>    |                                     |                                  |            |
| Mohallas                                    | 30                                  | 6                                | 36         |
| Lanes                                       | 264                                 | 34                               | 298        |
| Length rft                                  | 97,634                              | 9,749                            | 107,383    |
| No. of houses                               | 5,499                               | 576                              | 6,075      |
| Estimated cost (Rs)                         | 1,810,675                           | 175,742                          | 1,986,417  |
| <b>IV Averages:</b>                         |                                     |                                  |            |
| House area (sq. yd.)                        | 129                                 | 111.62                           | 120.31     |
| Cost per house (Rs)                         | 330.0                               | 321.32                           | 325.66     |
| Cost per sq. yd. (Rs)                       | 2.5                                 | 2.9                              | 2.7        |
| Cost per rft (Rs)                           | 18.5                                | 18.63                            | 18.56      |
| <b>Sanitation II</b>                        |                                     |                                  |            |
| <b>I Requests for survey and estimates:</b> |                                     |                                  |            |
| Mohallas                                    | 3                                   | —                                | —          |
| Lanes                                       | 35                                  | 32                               | 67         |
| <b>II Survey completed:</b>                 |                                     |                                  |            |
| Mohallas                                    | —                                   | —                                | —          |
| Lanes                                       | 28                                  | —                                | —          |
| <b>III Plans and estimates supplied</b>     |                                     |                                  |            |
| Mohallas                                    | —                                   | —                                | —          |
| Lanes                                       | 28                                  | 20                               | 48         |
| Length rft                                  | 8803                                | 7257                             | 16,060     |
| No. of houses                               | 558                                 | 270                              | 828        |
| Estimated cost (Rs)                         | 121,415                             | 91,456                           | 212,871    |

| Heads                 | October 1981        | January 1983     | Cumulative |
|-----------------------|---------------------|------------------|------------|
|                       | to<br>December 1982 | to<br>March 1983 |            |
| IV Averages:          |                     |                  |            |
| House area (sq. yd.)  | 107                 | 120              | 113        |
| Cost per house (Rs)   | 218                 | 339              | 278        |
| Cost per sq. yd. (Rs) | 2.02                | 2.8              | 2.41       |
| Cost per rft (Rs)     | 13.8                | 12.6             | 13.2       |

TABLE III: Work in lanes under construction  
January 1983-March 1983

| Lane                      | Mohalla            | Date          |
|---------------------------|--------------------|---------------|
| <b>Sanitation I</b>       |                    |               |
| Main line                 | Ghazinagar         | 7.1.83        |
| No. 2                     | "                  | 25.1.83       |
| No. 3                     | "                  | 7.1.83        |
| No. 7                     | Hanifabad          | 30.1.83       |
| No. 1                     | Azadnagar          | January 1983  |
| Nos. 2 and 6              | Khawaja Garibnawaz | "             |
| Nos. 1, 2, 14 and 15      | Haryana colony     | "             |
| Nos. 6,8 and 7a           | Hanifabad          | February 1983 |
| No. 1                     | Ghausia colony     | "             |
| Main line, and Nos. 2,3,4 | "                  | 1.3.83        |
| No. 9                     | Hanifabad          | 1.3.83        |
| No. 1                     | Husainabad         | 13.3.83       |
| <b>Sanitation II</b>      |                    |               |
| No. 3                     | Rehmat chawk       | 1.3.83        |
| No. 4                     | "                  | 31.3.83       |
| No. 1                     | Block 'L'          | 27.3.83       |

July 1981 – December 1982

Work done in lanes

|         |     |
|---------|-----|
| Mohalla | 33  |
| Lanes   | 163 |

(e) **Big drain**

Last month we received requests from two councillors for preparing a plan and estimate for the *nala* development in their areas, viz., sector 95 and 98. The work started on an integrated plan and estimate of sector 98 this month. Its survey and mapping is complete. Now only the design and estimate is left. It is hoped that till the middle of April we will have the scheme ready, so that it may be taken to the KMC by the councillors. After the design of sector 98 is complete we will take up the request of sector 95. We hope that our efforts will bring fruitful results in terms of cooperation of authorities concerned.

**5 Problems**

(a) **Problems solved**

Successful designing and manufacturing of shutterings for in-situ concrete septic tanks and the reduction in cost of septic tank construction as a result of our research and supplying of shutterings have been a major step forward for our low-cost sanitation programme.

In recent works, i.e., in Ghazinagar (lane 2 and main line) and Husainabad (lane 1), we have been successful in constructing manholes with proper channels. This has been possible due to the acceptance by people of the idea of septic tank as an interceptor chamber.

(b) **Problems pending**

- (i) All house connections to the manholes must pass through a septic tank (T-haudi or interceptor chamber).
- (ii) Streamlining and record-keeping of a system of constant work feed-back, i.e., social, technical and economic aspects of each lane.
- (iii) Rectification of defective work.
- (iv) Construction of big drains.

**6 Good and bad work in the lanes**

We have indicated earlier that a major defect in our system had been that in some cases lane residents were not following our instructions to make their house connections to the manholes via a septic tank (i.e., T-haudi/soakpit or interceptor chamber). In the last 2-3 months our major effort has been to solve this problem. We realize that this problem has occurred as a result of (a) ineffective communication with the lane residents; (b) absence of a supply line; and (c) absence of close supervision.

The above problem has begun to be eliminated by our concerted efforts and instances of direct connections are gradually decreasing. In work started on lanes in February this year, the houses which have given connection to the manholes have done so through a septic tank (T-haudi or T-soakpit). Only when all houses in a particular lane have given house connections to the manhole through a septic tank, will we be able to call it a 'good lane'. Otherwise in a lane even if one house gives direct house connection to the manhole or to the main line, then the whole lane could suffer as a result of choking. Satisfactory progress is being made in this direction, and in the next report we will be giving the percentage of 'good lanes'.

**7 Home schools — First aid and women's programme**

The position of home schools and first aid centres as of 31st March 1983 is shown in table 1.

(a) **Slight increase in numbers**

The figures in table 1 when compared with the figures of December 1982 show that while the numbers of schools and teachers have not increased, in the last three months the number of students has increased from 943 to 965. Given the general lack of interest in education, even a slight increase is encouraging.

(b) **Payment of fees**

The picture with regards to payment of fees is much more encouraging (table 2).

The number of students paying fees at the end of December 1982 had been 799 out of 943 students enrolled. That is, while in December 84% were paying fees, by the end of March the figure had gone up to 91%.

(c) **Boys and girls**

The figures with regards to boys and girls attending these home schools, and further, how many of these were not going to any school previously, is indicated in table 3.

**8 New approach — Women's programme**

In several places where the lane managers have constructed underground sewerage, the response for training women has been encouraging. Generally, the lane women have participated in substantial numbers and have shown interest in matters of basic hygiene and education.

(a) New approach

As indicated in the last report, a new approach is being followed. While the old home schools and first aid centres are being maintained, the programme is now being restricted to those lanes where the residents have constructed the sanitation and sewerage system. The purpose is to achieve integration. As the male residents have improved the lane, the women are being invited to learn the importance of sanitation, the measures to be taken for prevention of disease, need for proper nutrition and child care. Meetings are being held and training organized accordingly. Where necessary the home schools and first aid centres are also being established.

(b) Lane meetings

Meetings were held at Hanifabad, Faisal Chawk and at Mujahid colony. Twenty ladies attended the first meeting at Hanifabad. It is observed that at Hanifabad women are taking interest in the lane organization programme. Children here were vaccinated for measles. Home schools and first aid centres would be set up in two lanes here. In addition to home schools the women here want to know about family planning, female diseases and child care.

During the month of March two meetings were held at Faisal Chawk. Attendance in the first meeting

was poor, while in the second meeting it was better. In the second meeting they were introduced to Ms. Farhana who runs a home school. The ladies at the meeting appreciated the working of the home school.

At Mujahid colony two meetings were held during one month. Sanitation work has already been carried out in many lanes of Mujahid colony. The ladies were made to understand the importance of septic tanks and T-pipes. Majority of women at Mujahid colony want to be instructed on health and the home school programme. There is an old lady known as *dadi amman* who has been very cooperative and helpful in our efforts in the area. Ten more girls at Mujahid colony have requested to be trained for running home schools.

(c) Lane organization

Out of the six different places approached for establishing lane organizations, positive results were achieved at Hanifabad (7 lanes), Faisal Chawk (2 lanes) and Mujahid colony (12 lanes). In the meetings the ladies were acquainted with the women's programme and slides were shown to them to explain the diseases caused by uncleanliness and filth. Besides, they were informed about the sewerage system, the septic tanks and the significance and usefulness of T-pipes. A sense of responsibility in this respect has been aroused in women.

TABLE I

| Group    | 1   | 2  | 3   | 4   | 5   | 6   | 7  | Total |
|----------|-----|----|-----|-----|-----|-----|----|-------|
| Teachers | 13  | 4  | 15  | 10  | 16  | 17  | 7  | 82    |
| Schools  | 9   | 2  | 12  | 10  | 11  | 12  | 5  | 61    |
| Students | 181 | 96 | 173 | 117 | 142 | 169 | 87 | 965   |

TABLE 2: (Payment of fees)

| Group               | 1   | 2  | 3   | 4   | 5   | 6   | 7  | Total |
|---------------------|-----|----|-----|-----|-----|-----|----|-------|
| Total students      | 181 | 96 | 173 | 117 | 142 | 169 | 87 | 965   |
| Fee-paying students | 170 | 76 | 164 | 103 | 134 | 151 | 82 | 880   |
| Free (Defaulters)   | 11  | 20 | 9   | 14  | 8   | 18  | 5  | 85    |

TABLE 3

| Group            | 1   | 2  | 3   | 4   | 5   | 6   | 7  | Total |
|------------------|-----|----|-----|-----|-----|-----|----|-------|
| Total students   | 181 | 96 | 173 | 117 | 142 | 169 | 87 | 965   |
| Boys             | 95  | 44 | 85  | 51  | 79  | 89  | 44 | 478   |
| Girls            | 86  | 52 | 88  | 66  | 72  | 80  | 43 | 487   |
| School-going     | 126 | 12 | 53  | 59  | 26  | 30  | 36 | 342   |
| Non school-going | 55  | 84 | 120 | 58  | 116 | 139 | 51 | 623   |

TABLE 4

| Heads                             | No. | DETAILS  |
|-----------------------------------|-----|--|
| Areas contacted                   | 6   | Hanifabad, Haryana, Faisal chawk, Mujahid colony, Rehmat chawk and Ghazinagar. |
| Lane organization                 | 3   | Hanifabad, Faisal chawk Mujahid colony.  |
| Defaulting lanes                  | 3   | Haryana, Ghazinagar, Rehmat chawk  |
| Establishment of home schools     | 4   | 2 in Hanifabad, 1 in Faisal chawk and 1 in Mujahid colony                      |
| Vaccine centres                   | 11  | 496 children vaccinated  |
| Monthly meeting with home schools | 3   | Group nos. 2, 3 & 7  |

TABLE 5: Lane meetings

| Name of the area | Lane meeting | No. of houses in each lane | Attendance of women in each lane | Progress in lane | No. of families contacted | Establishment of home schools |
|------------------|--------------|----------------------------|----------------------------------|------------------|---------------------------|-------------------------------|
| Hanifabad        | 4            | 20                         | 3                                | 7                | 21                        | 2                             |
| Faisal chawk     | 2            | 20                         | 5                                | 2                | 10                        | 1                             |
| Mujahid colony   | 3            | 14                         | 3                                | 12               | 36                        | 1                             |

# 14th progress report (April - June 1983)

## 1 Restricted area

During the first quarter of our fourth year, we have been forced to rearrange our project. Mr. Burney has directed the OPP to confine its activities to the planned areas and to withdraw from the unplanned areas, which he has assigned to the UNCHS project. Since September 1982 we had been working intensively in these latter areas, mostly inhabited by "Biharis". Our sanitation II and sanitation III units were set up for these areas in October and December 1982. We had recruited local organizers, and contacted the residents of over 200 lanes. Requests had already been received for the survey of about 100 lanes and work was in progress in many places. After Mr. Burney decided to send OPP away from these areas in May 1983, the process of closing down two units, discharging local workers, and cutting of relationship with the lane leaders, whose goodwill had been acquired with great effort, was a very painful affair. However, after five sad, embarrassing and turbulent weeks, it had been dutifully completed. OPP has withdrawn from the areas reserved for UNCHS. It is a severe loss for OPP of much time and money that was invested in vain. It is also a setback because a mobilization has been stopped just as it was gathering momentum. And it is embarrassing because several lane leaders are still using OPP's plans, designs and implements, and approaching it for advice and guidance.

## 2 Termination of cooperative housing project

Another consequence of the withdrawal has been the termination of a cooperative housing project in Mansoornagar. OPP began the investigation last January. I held several meetings with Syed Afzal Husain of the Majlis Ittehad, who were assisting the newly arrived settlers. Professor Arif Hasan and Ms. Perween Rahman visited the new colony of *jhuggis* several times. The site was surveyed, simple designs for houses were prepared, and discussions were going on about the method of construction. To begin with two teams of the settlers were formed and each team

was supplied with tools and trolleys to start the work of levelling and collection of stones. But Mansoornagar is located in the UNCHS area, so in May OPP ended its association, and kept quiet when the settlers expressed unpleasant disapproval of its bizarre behaviour.

## 3 OPP's area

OPP's area consists of three complete councillor's circles 94, 95 and 102 and portions of three more circles, 96(half), 100(two-thirds), 101(three-quarters). It has been divided as follows:

Sanitation I - Circles 95 and 102  
Sanitation II - Circles 96, 100 and 101  
Sanitation III - Circle 94

The offices of sanitation II and III, which were previously located in what is now the UNCHS territory, have been shifted to the head office and new managers have been put in charge. In order to intensify the work in our area the teams have been strengthened, each team having its own surveyor and set of equipments. For the sake of better supervision of construction work in the lanes Ms. Perween Rahman has kept a mobile team of a plumber and a mason under her direct control. As her report shows the work of all the three units, inspite of the reshuffling and inspite of the month of fasting, is proceeding smoothly.

## 4 Selection and postponement

We have decided to concentrate during the next months on three programmes, viz, low-cost sanitation, training of women's groups (including home schools and first aid centres) and youth clubs (including tree plantation and kitchen gardening). We will postpone till next year two other programmes which were engaging our attention, viz., cooperative housing project and formation of economic cooperative groups. Unfortunately these were located in the sectors which have been assigned to UNCHS. We have decided to conserve our energy as well as to improve



the quality of our work in our restricted area.

## 5 Four levels in Orangi

After three years of first hand experience, we see that there are four levels in Orangi where improvements can be introduced, viz., the lane, the *mohalla*, and the circle. Nearly two years ago we began to organize the lanes. Gradually, after much fumbling, a viable pattern emerged which is now quite popular. In the last six months we tried tentatively to climb from the lane level to the *mohalla* and circle levels. Mr. Syed Shamim Ahmed, councillor of circle 98, invited the OPP to survey his entire circle and prepare plans and estimates for its big drains. This proved to be a laborious task which required three months, and numerous site visits by Professor Arif Hasan and Ms. Perween Rahman. The first drafts were ready in May and were handed over to Mr. Shamim at the time of OPP's withdrawal from his circle, which is situated in UNCHS area. To supervise the implementation of these plans would have been very instructive for OPP. However, we have similar requests from two councillors of our area, Mr. Muhammad Ahmed Siddiqui and Dr. Murtaza and surveying is being done.

## 6 Risk at higher levels

Unlike the sewage lines in the lanes, the improvement of the *mohalla* drains depends upon the KMC, its financial allocations, its rules and regulations, and its engineers and contractors. We have not yet discovered a way through these thickets, but we will continue our search, especially as the residents who have improved the lane drains are insisting on the improvement of *mohalla* drains. We are aware that OPP will have to go through the same stages for the *mohalla* drains as it had to go through for the lane drains, viz., design research, elimination of kickbacks and profiteering, and participation of the residents. Only by going through these stages costs can be lowered and work done quickly and honestly. We are fully aware that the task of improving the *mohalla* drains would be far more difficult than the task of improving the lane drains. It may even be impossible.

## 7 Improvements at the house level

While climbing apprehensively to the higher levels of the *mohalla* and the circle, and facing the risk of being kicked in the teeth, we are also descending happily to the lower level of the house. The pattern of an improved lane is a lane with an underground sewage pipe line with manholes for every two or four houses, with a closed *haudi* (septic interceptor chamber), with a PVC T-outlet to the manhole for each house. On both sides of the lane should be shade and fruit trees, planted by the house owners and looked after by the youth club. The suggested pattern

of lane improvement has now gained popular acceptance. The time has come to develop a pattern of house improvement which may acquire similar popularity. The pattern we are suggesting at present is as follows. Every house should have:

- (a) A sanitary latrine with a water seal and a closed *haudi* or soakpit connected to the manhole and sewage line in the lane.
- (b) A kitchen garden cultivated by women and children of the family.
- (c) A compost pit.
- (d) A closed concrete *haudi* for waste water from the bathroom for use in the kitchen garden.
- (e) One or two shade and fruit trees, and squash and petha vines for cooling the roof.
- (f) An improved stove in the kitchen to conserve fuel.

Professor Arif Hasan with the help of one of his students will soon try to design a cheap and convenient solar heater and cooker. If water could be heated for washing and boiled for drinking with solar energy in every homes many stomach and skin diseases can be prevented.

## 8 Social and technical support for improvement

It is surprising how much social education and technical and organizational support these little innovations and improvements require at the initial stage.

The improvements in the lane began after numberless visits by social organizers and meetings in the lanes. The actual construction became possible on account of surveying, mapping, estimating and supervising by competent OPP technicians. Similarly improvements in the houses are beginning to take place after the formation of women's groups and youth clubs. The formation of these groups and clubs has proved to be as hard a task, or even a harder task, than the organization of the first lane groups eighteen months ago. However, during the last two months, there are signs that the home improvement programme, through women's groups and youth clubs, has begun to establish itself. As yet the response is slow and the numbers are small, but we think that the practicability of the pattern has been tested, and gradually, like the lane pattern, it will be adopted more widely.

## 9 Publications and video tapes

Apart from consolidating and enhancing our

basic programmes — low-cost sanitation, women's groups, youth clubs, home schools, first aid centres, and *mohalla tanzeem* — we are concentrating on improving the quality of Orangi Quarterly. It is being read by a growing number of interested persons both in Orangi and outside Orangi. It offers authentic case studies which have sociological as well as technological significance. We are also planning to make video tapes of the work in the lanes and the houses, as it is acquiring significant proportions. These tapes would be very useful for the monthly conferences of lane managers, women's groups and youth clubs. Besides the tapes could be used to give to outsiders a visual idea of OPP's activities in Orangi.

#### 10 Orangi Project Committee

The following letter has been received from Mr. I.H. Burney:

Our Ref: IHB/107  
14th June 1983

Dr. Akhter Hameed Khan  
Director,  
Orangi Pilot Project  
1-D/26 Daulat House  
Orangi,  
Karachi

Dear Doctor Khan Saheb,

I am sorry that I could not confirm so far the decisions taken in the meeting held with you on 21st March 1983 as I had not been able to find out from Mr. Agha Hasan Abedi the names of the members of Orangi Project Committee to be formed to supervise the work of OPP on behalf of the Foundation.

The members of the committee are as under :

|                        |          |
|------------------------|----------|
| Dr. Akhter Hameed Khan | Chairman |
| Mr. Agha Hasan Abedi   | Member   |
| Mr. M.A. Wasay         | Member   |
| Mr. I. H. Burney       | Member   |

As suggested by you, the functions of this Committee will be as under:

- (a) To formulate policies;
- (b) to supervise and guide the project;
- (c) to sanction annual or supplementary or revised budgets;
- (d) to receive and consider quarterly progress reports and financial statements;
- (e) to arrange audits and evaluations;

- (f) to delegate or resume powers;
- (g) to appoint senior officers or terminate their appointments; and
- (h) to exercise any other function according to its discretion;

It is also confirmed that OPP will be granted adequate funds for its operation and the funds available for 1983-84 will be upto Rs. 2,000,000 (Rupees two million). It is hoped that OPP will continue to maintain strict control over its finances and the amounts will be requisitioned on quarterly basis and spent according to the actual requirements of the programmes in hand.

Kind regards,

Yours sincerely

I.H. Burney

It is good that the management of OPP is now being put on a formal basis. We hope that regular meetings of the Committee will be held once every quarter to consider the progress report and financial statement and to give clear guidance in respect of policies. The agenda for the first meeting in July is ready.

#### 11 Budget for 1983-84

A detailed financial statement of receipts and disbursement for the years 1980-81-82-83 ( three years) has been prepared and sent to BCCI. The detailed budget for 1983-84 has also been prepared and sent to BCCI.

BCCI has sanctioned Rs 2 million for 1983-84. An abstract of the disbursement budget is given below:

1st June 1983 to 31st May 1984

#### A— Non-capital expenditure

|                                 |                  |
|---------------------------------|------------------|
| I General                       | 834,000          |
| II Publication and audio visual | 133,000          |
| III Consultants                 | 100,000          |
| IV Special programmes           | 464,200          |
| V Economic programmes           | 121,000          |
| VI Grants                       | 10,000           |
| <b>Total</b>                    | <b>1,662,200</b> |

|                         |                  |
|-------------------------|------------------|
| B — Capital expenditure | 337,800          |
| C — Loan and advances   | —                |
| <b>Total (A+B+C)</b>    | <b>2,000,000</b> |

### Budget 1983-84

| Heads                                  | Rs.            |
|--|----------------|
| <b>Non-capital expenditure</b>         |                |
| <b>I General</b>                       |                |
| OPP office and contingencies           | —              |
| OPP office and transport               | 467,160        |
| Budget and accounts                    | 99,000         |
| Training and administration            | 73,840         |
| Research and evaluation                | 86,000         |
| Library and documentation              | 30,000         |
| Meetings and conferences               | 13,000         |
| Demonstration and experiment           | 40,000         |
| Training                               | 25,000         |
| <b>Total</b>                           | <b>834,000</b> |
| <b>II Publication and audio visual</b> |                |
| Orangi Quarterly                       | 93,000         |
| Other publications                     | 25,000         |
| Audio visual                           | 15,000         |
| <b>Total</b>                           | <b>133,000</b> |
| <b>III Consultants</b>                 |                |
|  | 100,000        |
| <b>IV Special programmes</b>           |                |
| Low-cost sanitation—I                  | 137,000        |
| Low-cost sanitation—II                 | 91,000         |
| Low-cost sanitation—III                | 18,000         |
| Mohalla tanzeem                        | 103,200        |
| Women's programme                      | 56,560         |
| Youth club                             | 58,440         |
| Water drilling                         | —              |
| <b>Total</b>                           | <b>464,200</b> |

### V Economic programme

|                                    |                |
|------------------------------------|----------------|
| Haryana motor parts manufacturer   | —              |
| Benarasi weavers programme         | —              |
| Women workers cooperative group    | —              |
| Leather workers cooperative groups | —              |
| Fret work                          | —              |
| Cooperative housing project        | —              |
| Employee's cooperative             | —              |
| Others                             | 121,000        |
| <b>Total</b>                       | <b>121,000</b> |

### VI Grants

|                        |               |
|------------------------|---------------|
| Orangi Federation      | —             |
| Social Work Department | 4,000         |
| Bazam Arbab Sukhan     | 6,000         |
| <b>Total</b>           | <b>10,000</b> |

### Capital expenditure

|                          |                |
|--------------------------|----------------|
| OPP office and transport | 202,800        |
| Sanitation I             | 10,000         |
| Sanitation II            | 10,000         |
| Sanitation III           | 5,000          |
| Women's programme        | 10,000         |
| Water drilling           | —              |
| Audio-visual             | 100,000        |
| Wells                    | —              |
| <b>Total</b>             | <b>337,800</b> |

12 Financial statement 1980 - 1983

Balance sheet on 31st May 1983  
(From April 1980 to May 1983)

| Heads                            | April 1980<br>to<br>May 1982 | June 1982<br>to<br>May 1983 | April 1980<br>to<br>May 1983 |
|----------------------------------|------------------------------|-----------------------------|------------------------------|
| <b>I Opening balance</b>         |                              |                             |                              |
| Bank                             | —                            | 337,472                     |                              |
| Cash                             | —                            | 2,474                       |                              |
|                                  | <b>Sub-total</b>             | <b>339,946</b>              |                              |
| <b>II Receipt</b>                |                              |                             |                              |
| BCCI                             | 1,394,220                    | 1,800,000                   | 3,194,220                    |
| Public contribution for well     | 54,000                       | 3,000                       | 57,000                       |
| Orangi Quarterly                 | —                            | 8,998                       | 8,998                        |
| Refund-Loan                      | 16,921                       | 34,799                      | 51,720                       |
| Other refunds                    | —                            | 4,874                       | 4,874                        |
|                                  | <b>Sub-total</b>             | <b>1,885,167</b>            | <b>3,316,812</b>             |
| <b>III Disbursement</b>          |                              |                             |                              |
| Non-capital expenditure          | 670,409                      | 1,139,015                   | 1,809,424                    |
| Capital expenditure              | 402,490                      | 752,814                     | 1,155,304                    |
| Loans                            | 52,295                       | 123,191                     | 175,486                      |
| Advances                         | —                            | 459                         | 458                          |
|                                  | <b>Sub-total</b>             | <b>2,015,479</b>            | <b>3,140,674</b>             |
| <b>Closing balances</b>          |                              |                             |                              |
| <b>IV Bank and cash balances</b> |                              |                             |                              |
|                                  | <b>On 31-5-82</b>            | <b>On 31-5-83</b>           | <b>On 31-5-83</b>            |
| Bank                             | 337,471                      | 173,016                     | 173,016                      |
| Cash                             | 2,474                        | 3,121                       | 3,121                        |
|                                  | <b>Total</b>                 | <b>176,138</b>              | <b>176,138</b>               |

**Disbursement**

**Non-capital**

|                               |         |         |         |
|-------------------------------|---------|---------|---------|
| OPP office and contingencies  | 220,720 | —       | 220,720 |
| OPP office and transport      | —       | 198,812 | 198,812 |
| Budget and accounts           | —       | 49,100  | 49,100  |
| Training and administration   | —       | 63,600  | 63,600  |
| Research and evaluation       | —       | 23,506  | 23,506  |
| Library and documentation     | —       | 23,352  | 23,352  |
| Meetings and conferences      | 4,998   | 7,812   | 12,810  |
| OPP consultants               | 68,050  | 59,050  | 127,100 |
| Demonstration and experiments | 37,569  | 87,899  | 125,468 |

|                                       |                  |                  |                  |
|---------------------------------------|------------------|------------------|------------------|
| Training                              | 41,880           | 28,141           | 70,021           |
| Other publications                    | 17,538           | 30,675           | 48,213           |
| Orangi Quarterly                      | 66,100           | 57,545           | 123,645          |
| Audio visual                          | 12,160           | 4,161            | 16,322           |
| Sanitation I                          | 14,173           | 80,812           | 94,985           |
| Sanitation II                         | —                | 57,250           | 57,250           |
| Sanitation III                        | —                | 6,000            | 6,000            |
| Mohalla tanzeem                       | —                | 59,375           | 59,375           |
| Women's programme                     | —                | 30,105           | 30,105           |
| Youth club                            | —                | 5,728            | 5,728            |
| Water drilling                        | 15,493           | 126,941          | 142,434          |
| <b>Economic programme</b>             |                  |                  |                  |
| I Haryana motor parts manufacturers   | 4,500            | —                | 4,500            |
| II Benarasi weavers                   | 75,227           | 92,146           | 167,373          |
| III Women's worker cooperative groups | —                | 10,000           | 10,000           |
| IV Leather workers cooperative groups | —                | 10,000           | 10,000           |
| V Fret work                           | —                | 6,000            | 6,000            |
| VI Cooperative housing project        | —                | 15,000           | 15,000           |
| <b>Grant</b>                          |                  |                  |                  |
| All Orangi United Federation          | 80,300           | —                | 80,300           |
| Social Work Department                | 9,000            | —                | 9,000            |
| Bazam Arbab Sukhan                    | 2,700            | 6,000            | 8,700            |
| <b>Total</b>                          | <b>670,409</b>   | <b>1,139,015</b> | <b>1,809,424</b> |
| <b>Capital expenditure</b>            |                  |                  |                  |
| OPP office and transport              | 137,838          | 320,032          | 457,870          |
| Sanitation I                          | 19,932           | 16,190           | 36,123           |
| Sanitation II                         | —                | 21,209           | 21,209           |
| Sanitation III                        | —                | 1,215            | 1,215            |
| Water drilling                        | 76,002           | 226,887          | 302,889          |
| Audio visual                          | 16,275           | 159,610          | 175,885          |
| Women's programme                     | —                | 7,500            | 7,500            |
| Wells                                 | 152,441          | 171              | 152,612          |
| <b>Total</b>                          | <b>402,490</b>   | <b>752,814</b>   | <b>1,155,304</b> |
| <b>Loans and advances</b>             |                  |                  |                  |
| Loans                                 | 52,295           | 123,191          | 175,486          |
| Advances                              | —                | 458              | 458              |
| <b>Total</b>                          | <b>52,295</b>    | <b>123,650</b>   | <b>175,945</b>   |
| <b>Grand total</b>                    | <b>1,125,194</b> | <b>2,015,479</b> | <b>3,140,674</b> |

## Part II

### 1 Setback

As indicated in the Director's report the last three months were very disturbing for the low-cost sanitation programme. All of a sudden we were asked to restrict our area of operation and to withdraw from sectors where we had already worked for several months. The task of social education, as our experience shows, is specially tedious and slow in the beginning. Lane residents can be mobilized for the improvement of their lanes only after prolonged efforts. Just when our educational and extension efforts were rousing widespread interest, and resulting in numerous requests for surveys, and construction was starting in several lanes, OPP was directed to pack up and go away. We were given a months time for departure. So in June we closed down sanitation II and sanitation III offices in Rahmat Chawk and Faisal Chawk and informed the lane managers that henceforth they would be guided by UNCHS.

### 2 An experiment cut short

Our sanitation II and III units were working mainly in the so-called Bihari areas. As the Biharis have generally an urban rather than a rural background, and moreover they have a larger number of educated people among them, we were trying a different extension approach in sanitation II and III. We were trying to involve the educated class more intimately in the programme. We were trying to persuade the secondary schools, set up by popular contributions, to become community centres. We were also trying to persuade young men's clubs and associations to promote the sanitation programme. Training was provided to a large number of educated young men both by sanitation II and III. Almost all of them came from the sectors which were taken away from us in May. In June we bade good-bye to the managers of sanitation I and II and to the numerous persons we had trained, and to the community centres we had started in the schools. We do not want to contemplate what our erstwhile friends are thinking about the OPP.

### 3 New division of area

Our restricted area has been divided as follows:

#### Sanitation I Councillors' circles 95 and 102

Manager: Ramzan Qureishy  
Jt. Manager: Syed Sohail Ahmed  
Surveyor: Iqbal Majeedi  
Assistant: Jafar Rahman

#### Sanitation II Circles 96(1/2), 100(1/3), 101(3/4)

Manager: Hafeez Arain  
Surveyor: Nadeem Usmani  
Assistant: Faizur Rahman

#### Sanitation III Circle 94

Manager: Abrar Khan  
Surveyor: Mobin Qureishi  
Assistant: Muhammed Rafiq

### 4 New planning

We will now begin to plan systematically for the improvement of our areas. The planning will be, as indicated in the Director's report, at four levels — the house, the lane, the *mohalla*, and the circle. We believe that the people of our area are now ready for systematic planning. Besides we also believe that the improvements which are being suggested are realistic and acceptable.

### 5 Surveys and reports

From the 1st of July we will also redesign our tables and the methods of reporting. Of course we have carefully preserved the previous data. In the next three months a survey will be carried out in all the three sanitation divisions which will include the following information:

Area and population  
Mohallas

Lanes  
Houses  
Improved lanes  
Unimproved lanes  
Improved lanes needing rectification  
Large drains

This information will serve as the bench mark. Progress will be indicated on a monthly basis:

New request/*mohallas*/lanes/houses  
Survey maps supplied  
Work started/new rectification  
Old work completed  
Work continuing

## 6 Sample investigations and case studies

Each month the construction in a few lanes will be selected for thorough study of all three aspects: technological, sociological, and economic. These would serve as test samples. Besides the practice of preparing case studies of work and the profiles of good lane managers would be made more systematic.

## 7 Improvement of mohalla drains

At the request of councillor Mr. Syed Shamim Ahmad, a rough survey of his entire circle was conducted and plans and estimates were prepared for some of the large drains. These have been handed over to him. We cannot advise him anymore as his circle is outside our new area of operation. But a similar survey is being done for circle 95. We will give an outline of the survey of circle 95 and 98 in our next report.

## 8 Progress of work

Progress of our low-cost sanitation work was disturbed in sanitation II and III, but it proceeded smoothly in sanitation I. We are refraining from giving the figures as we intend to present them in our next report after redesigning the reporting tables, from which the monthly progress will be clearly seen. The figures for the new sanitation II and III begin from July. But for sanitation I we will include the figures for April, May and June.

## 9 Research

We have before us a continuing programme of research:

### For the lanes

- (a) Further testing of the septic tank *haudis*.
- (b) Improvement of the designs of manholes and their shutterings.

- (c) Organization of maintenance.

### For the mohalla drains

- (a) Preparation of inexpensive designs and plans.
- (b) Research about methods of execution and financing.
- (c) Research about methods of cleaning and maintenance.

### For the houses

- (a) Design of compost pits and waste water *haudis*.
- (b) Improved cooking stoves.
- (c) Solar heaters and cookers.

## Tree plantation

- (a) Selection of trees for lanes and houses.
- (b) Use of creeping vines for cooling of roofs.

## 10 People's participation

The most encouraging feature during the last three months has been the evidence of growing popular participation. One striking example has been the large number of water lines and stand posts which are being constructed in the lanes. The residents instead of waiting for the KMC to do this work, have, after obtaining permission from the KMC through their councillors, proceeded to collect the funds from each house and lay the pipe lines. In many cases they approached the OPP for technical assistance in the shape of levels, designs, and the plumber's supervision. Thus we can see that the experience of constructing the sewage line is having a spill-over effect. Having learnt to fulfil one need, people are ready to fulfil another need as it arises. A detailed account of the lane-managed and lane-financed water connections will be given in the next report.

## 11 Women's programme

Progress has been slow. But in a few *mohallas*, specially in Mujahid colony, good groups have formed and good activists have emerged. These women are interested in learning about child care and prevention of diseases as well as in kitchen gardens and compost pits. Some of them have started the gardens in their homes. We hope that their example will be followed by others. We are doing our best by explaining these ideas orally in meetings, and through leaflets (on gardening, clean water, balanced food, common diseases etc.) which are being widely distributed.

These leaflets are published in our Urdu quarterly, *Orangi* which also contains other details about women's meetings, home schools and first aid centres. It seems that some of the young girls who have been running the home schools and first aid centres are getting "bored". They are asking for help in getting better employment, or for the initiation of "more interesting" kinds of training. This is the usual hazard of programmes depending on young people.

## 12 Tree plantation and kitchen gardens

In the month of May we strengthened the training team for youth clubs by appointing Mr.

Inamullah Khan, who has several years' experience as a forester. The proposal that youth club members should grow vegetables in their homes, and plant trees in their lanes is being accepted with enthusiasm. The manager of the youth club programme, Moulvi Mahmood Vernalvi, is himself growing an excellent kitchen garden, and so are many other families. In June 1983 after training by the team, about one hundred pits were prepared in the lanes and trees were planted. We will give accurate statistics in the next reports. Urdu leaflets on gardening and tree planting can be read in *Orangi Quarterly*.



*Children play an important role in the maintenance of their physical environment. Here Dr. Akhter Hameed Khan is seen talking to children who have planted trees in their lanes.*



## A NOTE ON WELFARE WORK

(25th February 1980)

by Akhter Hameed Khan

### 1 Conventional philanthropy

In Pakistan philanthropic intentions have usually flowed in two channels : either the erection of subsidized superb institutes, or the distribution of doles. While the utility of superb institutes and charitable doles cannot be denied, their limitations are quite obvious. For instance elitist schools or clinics can serve only a small clientele and similarly the clientele of doles, although different, is not really large. In both cases, the main majority, the common people, are left out.

### 2 Scope for a wider perspective

For a newcomer to the field of philanthropy, it is easy and tempting to climb on this two wheeled bandwagon. However, it may be worthwhile to acquire, after an attentive look, a wider perspective of those common needs which can be appropriately fulfilled by benevolent assistance. The nature and scope of such assistance also requires close attention.

### 3 No instant blueprint

It must be admitted that a blueprint is not available for immediate implementation, although many instructive models do exist in other countries. Those who want to go beyond the conventional ways should patiently go through the process of investigation, local consultation, experiment and evaluation.

### 4 General direction: Institutional organization

Before starting, let us say, in Orangi, we may reasonably assume that a primary, and probably the most neglected aspect of the local situation, would be the need for institutional organization. We are all living through a period of social dislocation, but for the Biharis in Orangi, or for that matter the Pathans

in Orangi, both uprooted from their old familiar environments, the dislocation is specially acute. They have to re-establish the sense of belonging, the community feeling, the conventions of mutual help and cooperative action. That can be done chiefly through the creation of many kinds of organizations, social and economic. Without such organizations chaos and confusion will prevail. On the other hand, if social and economic organizations grow and become strong, services and material conditions, sanitation, schools, clinics, training, employment, will also begin to improve.

### 5 Guidelines: Core workers and autonomous units

The promotion, guidance and evaluation of social and economic organizations could be the chief task of a trust or foundation. For that purpose, gradually, a core of full-time workers should be put together.

However, each individual organization should be designed to be autonomous, and ultimately self-supporting. Of course, in the initial stage, it will be helped by training of its staff and evaluation of its work.

### 6 Collaboration with established agencies

To provide specialized training or evaluation or in the case of economic organizations, financial assistance, the trust would secure the collaboration of established agencies, government departments, universities and banks.

### 7 Avoidance of haste : A timetable

The development of social and economic organization cannot be done quickly. Undue haste in this case will surely result in waste. Enough time should be spent on careful investigation of and acquaintance with the local people, their conditions and institutions. A rough timetable may be suggested : Several months' preliminary investigation (3 to 6 months) followed by a tentative plan for the first year, followed by an evaluation based on the analysis of detailed documentation. The process to be repeated till the emergence of a successful pattern.

## 8 Main types of organizations

Tentatively it may be pointed out that the main organizations selected for promotion would be local councils, various kinds of cooperatives and associations, schools and clinics. As already indicated the emphasis would be community action and autonomy. The aim would be to promote not the exclusive development of one special school or hospital, but of institutions who may be willing to upgrade themselves by staff training and community organization.

## 9 Two fundamental principles

Two fundamental principles should be scrupulously followed:

- (a) The avoidance of any political or sectarian bias ; and
- (b) the observance of a populist point of view,

the preference for the needs of the common people.

## 10 A model for subsequent expansion

Let us hope that, not immediately, but in a few years this approach of social and economic institution building may begin to produce some good results. Then we may also hope that it may serve as a model for other similar areas of Karachi, and without much difficulty projected into those areas.

## 11 Avoidance of publicity and fanfare

In the beginning all publicity must be strictly avoided. The consequences of a premature publicity or any kind of early fanfare are likely to be as unfortunate as the consequences of hasty and grandiose planning. As the project grows intelligent public will be informed by means of accurate and well-documented reports by impartial evaluators.



*The bucket latrine is now being replaced by OPP's low-cost underground sewerage system.*

## appendix II

To: Mr. Agha Hasan Abedi  
President, BCCI

From: Nicholas Houghton

Subject: Status of BCCI—Orangi Pilot Project Second  
Phase, Pak/82/FO 1.

Please find attached for your review the following documents:

- (a) *An appraisal of the Orangi Pilot Project and the approved project document BCC—OPP Second Phase, PAK/82/FO 1*

This document assesses the methodologies at variance over the implementation of the second phase of OPP four months after the arrival of the UNCHS Chief Technical Advisor.

- (b) *Scheduled implementation and actual implementation — September-December 1982 dollar component.*

A comparative chart showing actual expenditures on international inputs against those estimated in the approved project document, accompanied by a chart showing what should have been achieved during the first four months and what was actually carried out.

- (c) *Scheduled implementation and actual implementation — September-December 1982 rupees component.*

A comparative chart of actual rupee expenditures and those estimated in the approved project document.

An appraisal of the Orangi Pilot Project and the approved project document BCC—OPP Second Phase, PAK/82/FO1.

- 1 The Orangi Pilot Project is a highly personal research and extension initiative into low-cost urban technology and social services for low-income communities. It is subject totally to the perceptions, intellectual speculations and will of its originator and director Dr. Akhter Hameed Khan, a very able man with a well established reputation as a dedicated social educator.
- 2 Whatever plan or overall scheme exists is in the project director's mind, and he does not share his mental perambulations and reflexions until his ideas have coalesced. He arrives at decisions in an evolutionary and exploratory manner and steers the project accordingly. It is, therefore very much a personal journey into the dynamics of low-income settlements.
- 3 The project, consequently, does not set itself quantifiable targets within measureable target areas that respond to an overall plan. The methodology adopted is fundamentally exploratory and does not draw on other experiences in the urban field. The project is seen as a process of contact and response with the community. It does not aim to cover ground or achieve quantitative targets. It unfolds, as it were, by way of ad-hoc actions. Its purpose is to serve. Its inspiration a belief in the sense and energy of the common people which can be kindled into a process of communal self-reliance and so break free from the incompetence and corruption of local government and the narrow, specialized and insensitive assertions of the professionals. Thus the project seeks to identify how people perceive their needs, what their capabilities and priorities are, and then assist and advise in attaining solutions. If a project initiative does not take root it is abandoned, little time is taken up in recriminations and evaluation. By the same token the project only works with

- those groups that respond to the project. Thus there can be no fixed target areas. In the end, through this process, the project hopes to discover a harmonious whole of need, viability and self propagated replicability. The right information and technical improvements will be those that are incorporated into the shared culture of the community. This assimilation, it is assumed, will lead to further development and self-reliance.
- 4 While one might dispute the premises on which it is founded, the methodology just described is perfectly valid for a research project. Moreover, much of the extension work is extremely interesting and is giving positive returns and could be adopted to great advantage by the official urban authorities. In short, Dr. A.H. Khan's activities are most stimulating and should continue to receive all the support they require according to the terms of reference he lays down.
  - 5 It must be stated, however, that as matters stand, four months after the arrival of the UNCHS Chief Technical Advisor, that the expectations for an integrated urban rehabilitation demonstration project in Orangi, as described in the project document which has engaged the commitment of the Government of Pakistan, the BCCI and UNCHS, are far from being realized.
  - 6 The expectations of UNCHS, described in the project document as the Executing Agency, do not so far carry any weight. The arrival of the CTA, who under other circumstances would be a management and technical executive officer concerned with assisting and advising the Project Director in the implementation of the approved project document, has no authority or status in the project. At best he is an exploratory liaison man with the urban authorities and occasional technical participant in the project, but more often he is in the position of interested observer. In any event he is not privy to the decision making process of the project. This situation has rendered every agreement between the CTA and the Project Director as provisional and every action open to revision. It must be emphasized that there is no hostility or personal antipathy involved. Relations are most cordial and civilized all round. But, under the circumstances, it is practically impossible to draw up a schedule of requirements and inputs or to programme the recruitment of high level consultants and experts. To all intents and purposes the approved project document is a
- dead letter.
- 7 The implementation of the approved project document hinges on the following:
    - \*Deployment of a core of full-time national professional staff with their support services under the direction of the Project Director, to be responsible for all the technical inputs and recording and training activities envisaged by the project. They will, in addition, organize, direct and assist the national and international expert who will be called upon for specific specialized tasks.
    - \*Structuring of the project to perform four basic functions:
      - (i) Direct social and technical assistance.
      - (ii) Special studies and field experiments.
      - (iii) Training.
      - (iv) Analysis and documentation.
    - \*Formulation of a draft outline Integrated Urban Development Programme.
    - \*Identification of beneficiaries and target areas.

The scope and time and constraints are clearly stated, and while subject to modification constitute the basic framework for project activity as approved by all parties. With the notable exception of the continuation of the social and technical assistance activities evolved since its inception, OPP has not incorporated or otherwise adopted any of the above.
  - 8 Clearly there are two apparently irreconcilable approaches to project execution. One, open ended, exploratory and evolutionary with emphasis on sociological particularities, unconstrained by time and cost. The other, target oriented, systematic, with a professional and technical focus, constrained by time and costs.
  - 9 The project still has the potential that motivated the formulation of the project document. It may be that Dr. A.H. Khan will eventually conclude that OPP is ready to adopt a more structured and planned approach. It may be that such an approach is intrinsically incompatible with his methodology. But for the present, the project is still feeling its way and keeping its options

open, with no clear indication as to what it expects from a UNCHS CTA or from UNCHS participation in general.

- 10 There should be no doubt at all that UNCHS is uniquely equipped to provide specialized support for undertaking large-scale projects in low-income urban areas, and that it is extremely anxious to establish a sound and fruitful working relationship with the BCCI Foundation. Now that the BCCI Foundation in Pakistan has finally been constituted perhaps all parties will be better placed to jointly identify the most appropriate UNCHS support for OPP and the most appropriate joint BCCI-UNCHS contribution to improving the condition of low-income communities in Pakistan.

Nicholas Houghton  
CTA,PAK/82/FO1

- 7 Induction of experts .
- 8 Fielding of consultants.
- 9 Equipment purchases.
- 10 Technical field tests .
- 11 Organization of documentation .
- 12 Study tours .
- 13 Staff training .
- 14 UNCHS backstopping .

1 September to 31 December 1982  
Actual implementation

- 1 Pending, subject to firm clarification on nature and scope of implementation of approved prodoc.
- 2 In abeyance.
- 3 Collection of some primary data; liaison with KDA and KMC; further action pending on definition scope project.
- 4 Pending agreement on scope of Urban Development Programme.
- 5 Subject to 1,2,3, and 4.
- 6 National experts in abeyance; international candidates identified, further expediting subject to clarification on national core personnel recruitment.
- 7 Pending agreement on 1 and 3 and recruitment of national core personnel.
- 8 Water and sanitation consultant 4 days; others pending on 1 and 6.
- 9 Pending to clarification CTA role and 1,2 and 6.
- 10 In abeyance.
- 11 Pending subject to 1,3 and 6.
- 12 CTA mission Bangkok and India.
- 13 Pending subject to 1.
- 14 11 days mission by UNCHS Sanitation Engineer.

1 September to 31 December 1982  
Scheduled implementation

- 1 Formulation of work plan.
- 2 Implementation of project office.
- 3 Draft outline Urban Development Programme.
- 4 Target areas and beneficiaries.
- 5 Coordinated programme all components.
- 6 Recruitment of national and international experts and consultancies.

Country: PAKISTAN  
Project no : PAK/82/FO1  
Project title : BCCI-ORANGI PILOT PROJECT

1 of 2  
Annexe B  
12-1-1983

BUDGET REVISION A (DOLLARS COMPONENT):

1 September to December 1982  
SCHEDULED IMPLEMENTATION

| 10.00 | PROJECT PERSONNEL          | m/m | \$     |
|-------|----------------------------|-----|--------|
| 11.00 | EXPERTS                    |     |        |
| 11.01 | Chief Technical Advisor    | 4   | 28,000 |
| 11.02 | Low-cost sanitation expert | 2   | 14,000 |
| 11.03 | Well-drilling expert       | 2   | 14,000 |

| 10.00 | PROJECT PERSONNEL            | m/m | Rupees  |
|-------|------------------------------|-----|---------|
| 11.04 | Filtration and desalination  | 2   | 14,000  |
| 11.05 | Low-cost healthy care expert | 2   | 14,000  |
| 16.00 | Other costs (HQ missions)    |     | 3,000   |
| 32.00 | Study tours                  |     | 16,200  |
| 42.00 | Non-expandable equipment     |     | 29,135  |
| 99.00 | GRAND TOTAL                  |     | 273,335 |

1 September to 31 December 1982  
ACTUAL IMPLEMENTATION

|        |                                  |   |        |
|--------|----------------------------------|---|--------|
| 11.01  | Chief Technical Advisor          | 4 | 28,000 |
|        | —<br>CANCELLED<br>CANCELLED<br>— |   |        |
| 11.07A | Water and sanitation consultant  | 2 | 1,520  |
| 16.00  | Other costs (HQ missions)        |   | 3,000  |
| 32.00  | Study tours                      |   | 4,000  |
| 99.00  | GRAND TOTAL                      |   | 36,520 |

Country: PAKISTAN  
Project no : PAK/82/FO1  
Project title : BCC—ORANGI PILOT PROJECT

Annexe C  
12-1-1983

BUDGET REVISION A RUPEES COMPONENT (PROVISION FOR LEAVE, HEALTH AND SEVERANCE NOT INCLUDED):

1 September to 31 December 1982  
SCHEDULED IMPLEMENTATION

| 10.00 | PROJECT PERSONNEL  | m/m | Rupees |
|-------|--|-----|--------|
| 11.00 | EXPERTS  |     |        |
| 11.01 | Project Director   | 4   | 48,000 |
| 11.02 | Jt. Director organization, training and social programme | 4   | 48,000 |
| 11.03 | Jt. Director engineering and technical                   | 4   | 48,000 |
| 11.04 | Civil engineer (sanitation)                              | 4   | 16,000 |
| 11.06 | Sociologist  | 4   | 16,000 |
| 11.07 | Health visitor   | 4   | 8,000  |
| 11.08 | Cooperatives consultant (p/t)                            |     | 4,000  |

| TECHNICAL SUPPORT STAFF |                   | m/m | Rupees  |
|-------------------------|-------------------|-----|---------|
| 11.10                   | Draughtsmen       | 4   | 3,200   |
| FIELD STAFF             |                   |     |         |
| 11.13                   | Social organizers | 16  | 16,000  |
| 11.14                   | Drilling team 1   |     | 12,000  |
| 11.99                   | SUB-TOTAL         |     | 219,200 |

1 September to 31 December 1982  
ACTUAL IMPLEMENTATION

| 10.00 PROJECT PERSONNEL |  | m/m | Rupees  |
|-------------------------|--|-----|---------|
| 11.00 EXPERTS           |  |     |         |
| 11.01                   | Project Director                           | 4   | 28,000  |
| 11.07                   | Health visitors (2)                        | 8   | 3,600   |
|                         | Jt. Director administration and management | 4   | 28,000  |
| 11.09 A                 | Consultant sanitation (p/t)                |     | 4,000   |
| 11.09 B                 | Consultant surveying (p/t)                 |     | 6,000   |
| 11.09 C                 | Consultant women's programme (p/t)         |     | 6,000   |
| 11.09 D                 | Consultant documentation - unpaid          |     | -       |
| 11.09 E                 | Consultant technical - unpaid              |     | -       |
| TECHNICAL SUPPORT STAFF |  |     |         |
| 11.10                   | Draughtsmen                                | 6.5 | 8,900   |
| 11.12                   | Surveyor                                   | 2.5 | 4,000   |
| FIELD STAFF             |  |     |         |
| 11.13                   | Social organizers                          | 33  | 35,750  |
| 11.14                   | Drilling team 1                            |     | 48,240  |
| 11.15                   | Social workers                             | 8   | 27,200  |
| 11.16                   | Dye house workers                          |     | 25,600  |
| 11.17                   | Survivors assistants                       | 10  | 7,770   |
| 11.99                   | SUB-TOTAL                                  |     | 233,060 |

## Comments by Director OPP

January 20, 1983

1 Mr. N. Houghton has come to the conclusion that since his arrival in September 1982 he has been of no use to the OPP, and under the prevailing circumstances, he can be of no use. His reason for this sad conclusion is that the Director of OPP follows one approach ("open ended, exploratory and evolutionary with emphasis on sociological particularities," his words) while Mr. Houghton desires an opposite approach ("target-oriented, systematic, with a professional and technical focus"). Mr. Houghton thinks that these approaches are irreconcilable. Since the Director refuses to renounce his own approach and adopt Mr. Houghton's approach, Mr. Houghton has decided that he is redundant. If Mr. Houghton's assertion that the two so-called opposite approaches cannot be reconciled is correct and if he insists that I must follow his approach like an obedient pupil then indeed I fully agree with Mr. Houghton's sad conclusion.

2 In para 10 Mr. Houghton suggests that the BCCI should make a new arrangement with UNCHS. While he charitably does not recommend the dismissal of the director and the disbandment of OPP, but magnanimously allows them to continue along their haphazard and uncertain course, he is ready himself to organize a large scale project in a low income urban area on behalf of the UNCHS. I have no comments on this suggestion as it is a matter for decision by the President of BCCI.

3 But I have a few comments on the strange statements of Mr. Houghton regarding the project document. I was closely associated with the writing of this document and my perception of the agreement with UNCHS is quite different.

4 The Orangi Pilot Project was sponsored by BCCI in April 1980. When the UNCHS mission arrived in December 1981 the project was 21 months old. Nine progress reports had been written, which repeatedly clarified the experimental (open ended, exploratory, evolutionary) approach. These reports pointed out again and again:

- (a) that there was no blueprint, no masterplan to be imposed;
- (b) that OPP was a non-government organization, not equipped or designed to snatch the planning, regulating or servicing functions of official agencies like the KDA, KMC or the departments of education and health. A non-government organization could not be a parallel agency, as the Governor of Sind

rightly warned in the presentation meeting in February 1981;

- (c) that OPP's main concern was to promote self-supporting people's organization; and
- (d) that OPP's research was designed to discover technological, sociological and economic models which were based on popular participation, management and funding etc.

5 When the UNCHS, at its own initiative, agreed to collaborate with the OPP, we naturally believed that their mission having read the report and seen the field work, approved the above approach. I cannot agree with Mr. Houghton's interpretation that when we signed the agreement we accepted the UNCHS as the "executive agency", that we surrendered our policy making authority, that we renounced our old approach, and adopted a "target-oriented" approach to be prescribed and "managed" by a Chief Technical Advisor, and that Phase II of the Orangi Pilot Project was no longer to be a non-government experimental project but, as Mr. Houghton puts it, it was to be "an integrated urban rehabilitation demonstration project in Orangi". In other words, according to him, we really signed the death warrant of the old OPP and were transformed into a mini-KMC. How could we do that?

6 The "target-oriented, integrated, urban rehabilitation demonstration" approach may be suitable for an official agency like the KMC or KDA, although previous efforts in *katchi abadis* along these lines have shown poor results. Such plans involve huge investments (not 2 million dollars, but hundreds of millions) besides the exercise of regulatory powers which are beyond the reach of a non-government organization.

7 Mr. Houghton's claim that the UNCHS is the "executive agency" of the Orangi Pilot Project and the CTA should be a "management and technical executive officer for the implementation of the approved project document" is exceedingly strange. Instead of being an advisor he claims to be a preceptor, a super director. My perception of the agreement is that the OPP is a uniquely Pakistani project, guided by an old experienced Pakistani director, financed by a Pakistani foundation. The UNCHS has been invited to provide such technical expertise as may be requested by and may be acceptable to the national project director. There is no question whatsoever of making the UNCHS the executive agency, or handing over the management to the Chief Technical Advisor.

8 Mr. Houghton has given a long list of items held in abeyance and works not done during the last four months. He complains that a project office was



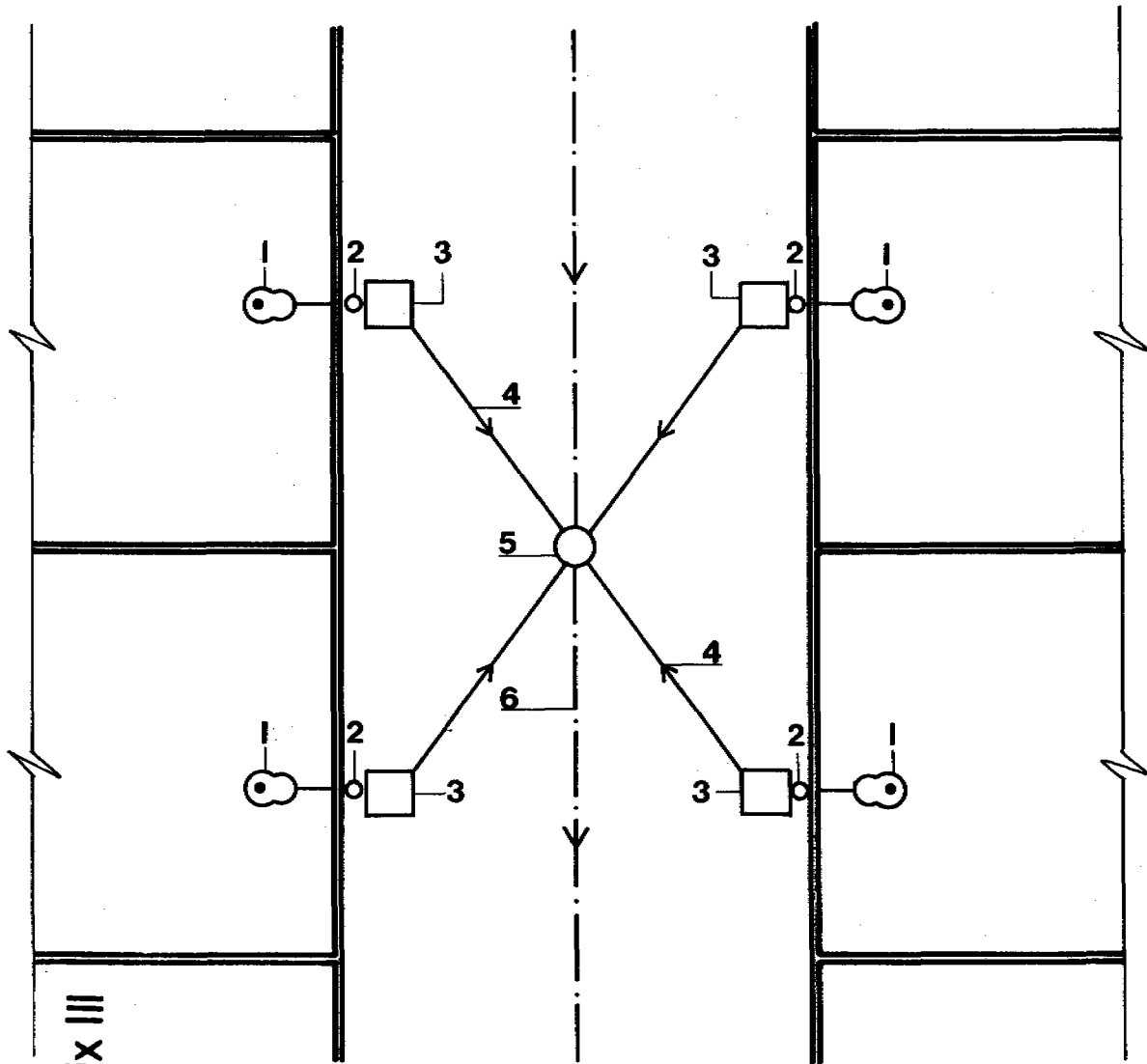
not set up, national experts were not recruited, work plan was not prepared, target areas and beneficiaries were not identified etc. One would think that the chief occupation of the national project director was to put a spoke in the Chief Technical Advisor's wheel. As a matter of fact a three-storey office already exists, a little crowded but quite functional, conveniently accessible to Orangi residents and frequently visited by them for consultation, conferences and training. One room was even reserved for the CTA which he uses rather infrequently. Most of the required staff has been recruited and is getting intensive job training. National experts of high calibre have been engaged as consultants. There is a very definite plan of work which, of course, is continuously reviewed and revised. As pointed out in report nos. 10, 11 and 12, perceptible and measurable progress is being made both in social and physical engineering. For instance, within a year a clear pattern has evolved of low-cost lane sanitation, self-financed and self-managed by the lane residents with technical guidance from OPP. This pattern has been accepted by more than 250 lanes and more requests are coming in every day. Social cooperation is being promoted, awareness and skill is being increased, and contacts are being established in gradually widening circles. An open minded and perceptive foreigner should eagerly seize the opportunity of intimately associating himself with these significant developments and thus acquire a first hand insight into the interlinked social and physical problems of Orangi. His usefulness

would grow with his insight.

9 But the problem with Mr. Houghton is that he is enveloped in misconceptions rather common among quick-fire foreign experts. They think they possess ready-made solutions, that they have nothing to learn about local problems from local people, that the problems are quite simple, and all that is needed is a nice project office with a gang of highly paid native staff under their control. Soon after his arrival in Karachi Mr. Houghton non-chalantly told me that the OPP office in Orangi was not a "project office", that the OPP staff was no staff, (musclemen he called them), that our expert consultants were non-entities, our plan of work was no plan, our methodology was mere personal whimsicality. In short, unless we slavishly followed his instructions, we were lost.

10 If the experts sent by UNCHS are completely obsessed with hackneyed, narrow and generally unsuccessful conventional techniques, unintelligently obtuse to pragmatic and innovative research and extension, blindly insensitive to significant local developments, and at the same time compulsively desirous of executive control, I am afraid the people of Orangi will derive little benefit from them, and the BCCI will get a miserable return for one million dollars.

Akhter Hameed Khan,  
Director OPP



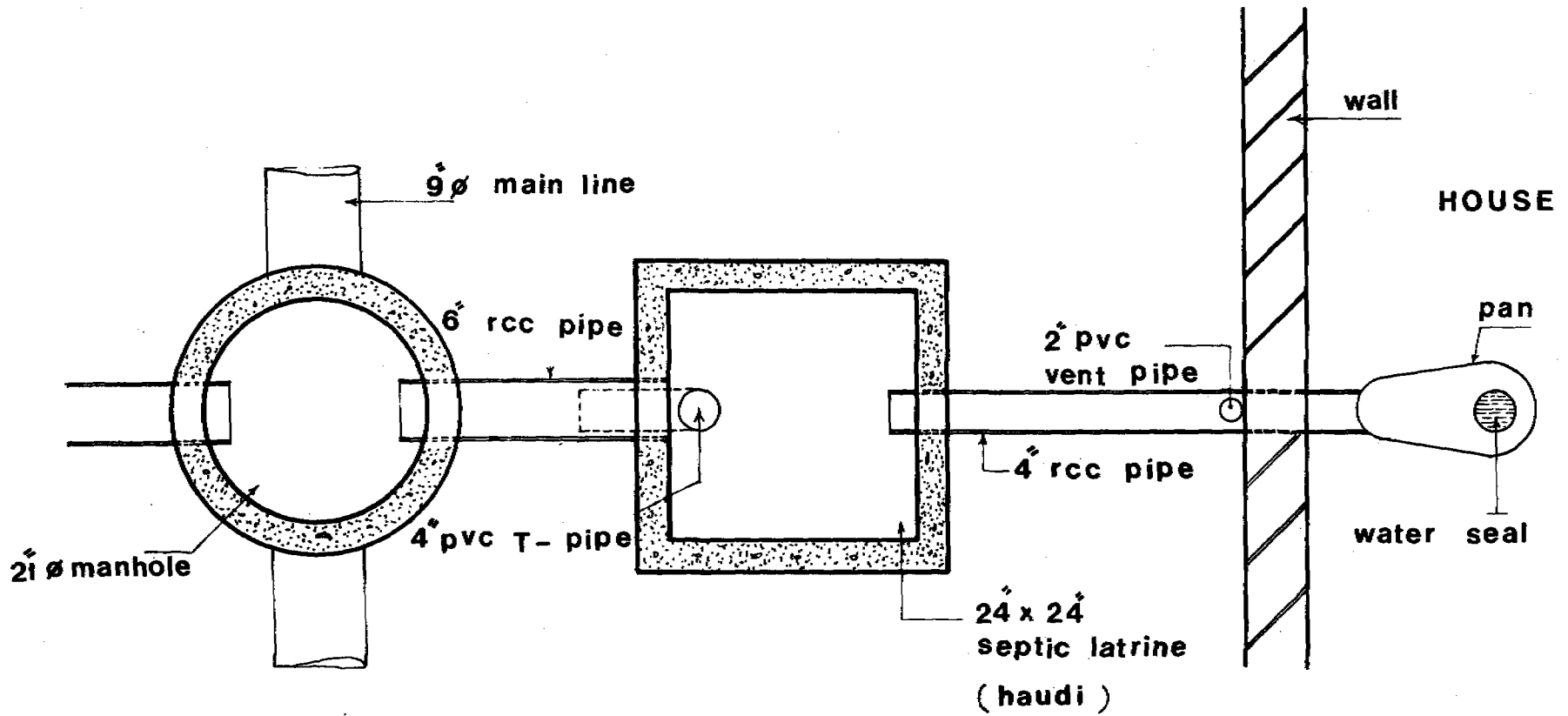
**LEGEND**

- 1 — pan
- 2 — vent pipe  
2" pvc
- 3 — haudi  
2' x 2' cast in-situ concrete
- 4 — connection line  
6" dia rcc
- 5 — manhole  
21" dia cast in-situ concrete
- 6 — main line  
9" dia rcc

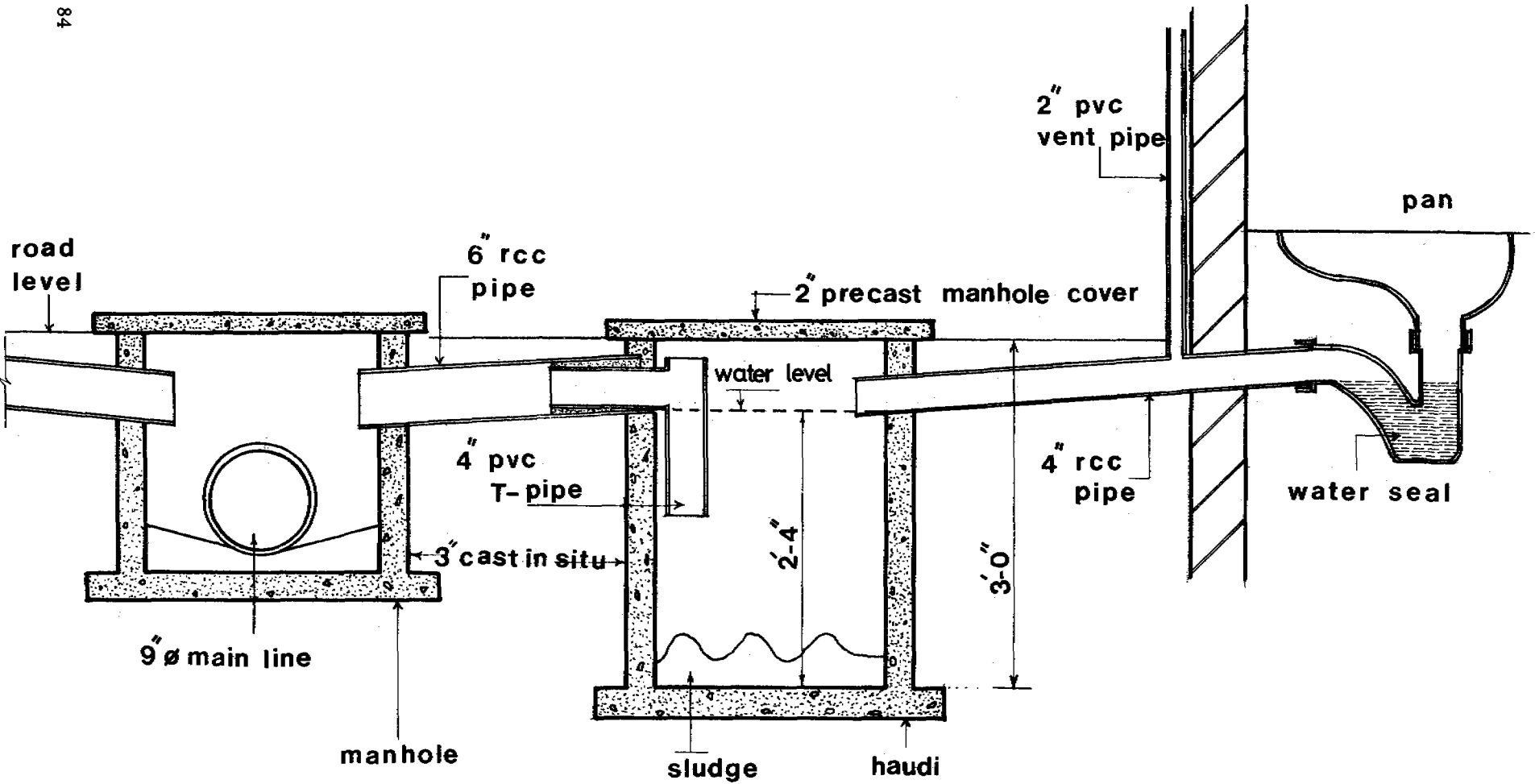
appendix III

20.0" wide lane

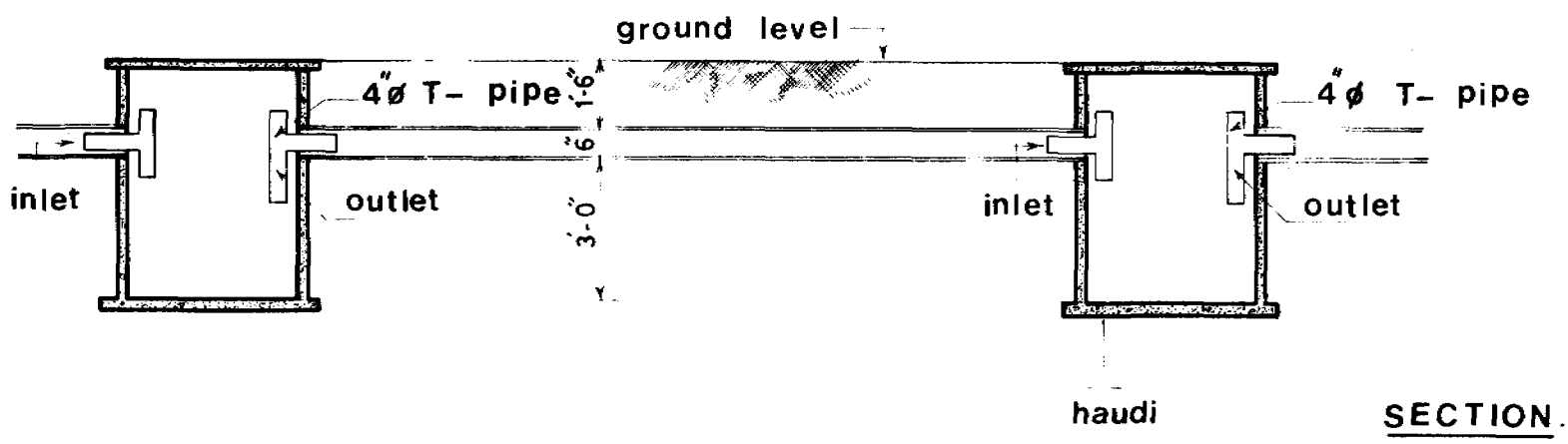
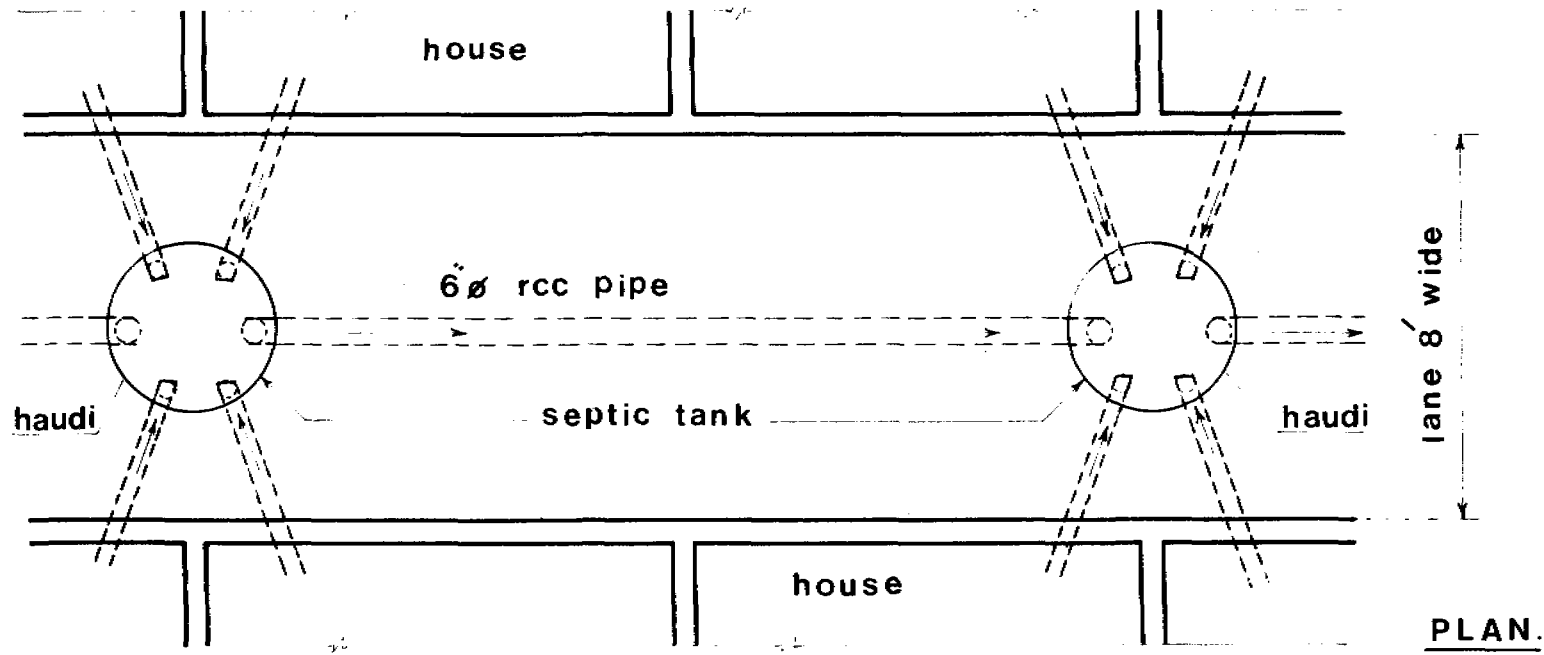
**LANE PLAN**



opp low cost sanitation : **PLAN**



opp low cost sanitation : SECTION



HAUDI IN PLACE OF MANHOLES



*Dr. Akhter Hameed Khan was born in Agra on 15th July 1914. He passed his MA from Agra University in 1934 and joined the Indian Civil Service, the most prestigious and cherished service of British India. He attended the Magdelene College, Cambridge from 1936 to 1938 as an ICS probationer officer. In 1945 he resigned from the Civil Service and began to work in Aligarh as a labourer and locksmith.*

*In 1947 he took up a teaching position at the Jamia Millia, Delhi where he stayed for 3 years. In 1950 he migrated to Pakistan and became the Principal of Victoria College, Comilla (East Bengal). He remained at the Victoria College until 1958 with a break in 1954-55 when he was placed on deputation as Director, Village Agricultural Industrial Development (V-AID) programme, East Pakistan. In 1958 he went to the Michigan State University for training in rural development. On his return in 1959 he became the Director of Pakistan Academy for Rural Development (PARA) at Comilla where he remained until 1971. He also served as Vice-Chairman of the academy's Board of Governors.*

*From 1971 to 1972 Dr. Khan served as a Research Fellow first at the Agricultural University, Lyallpur, and then from 1972 to 1973 at the Economics Department, Karachi University. In 1973 he returned to the Michigan State University as a Visiting Professor where he remained until 1979. During this period he also served as Advisor PARA, Peshawar (1973-1975) and for 7 months as Advisor BARD, Bogra (Bangladesh, 1978-79). In April 1980 the Orangi Pilot Project was established and since then he has been its Director and its most dynamic and innovative leader.*

*For his outstanding work in the development of rural and low-income areas, Dr. Khan has been awarded the Sitara-e-Pakistan (1961), the Magsaysay Award, Republic of Philippines (1963) and honorary LLD degree, Michigan State University (1964). In addition to the MSU, he has been a Visiting Professor at the Lund University, Sweden, at the Woodrow Wilson School, Princeton University, at the Harvard University and Oxford University.*