



**INTEGRATED RURAL WATER SUPPLY AND SANITATION PROJECT,
KARNATAKA, INDIA**

(Netherlands' assisted)

**REPORT ON A PILOT STUDY IN COMMUNITY-BASED ENVIRONMENTAL SANITATION
AND ANGANWADI BUILDING CONSTRUCTION IN VILLAGES JALIBER, JEERGAL
AND VARCHAGAL, MUDHOL TALUK, BIJAPUR DISTRICT**

by G. Suvarchala

SEPTEMBER 1995



PROJECT SUPPORT UNIT

BANGALORE

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This report on a pilot study in community-based environmental sanitation in three villages of Bijapur District has acquired the present shape with the assistance extended by different people at various stages of field work and report writing. I express my grateful thanks to all of them: Renuka, Shivappa, Manohar, Madhuri and pilot village workers of the three villages for their assistance, insightful discussions and hospitality during the field work, to villagers of Jaliber, Jeergal and Varchagal for their cooperation while collecting relevant information, to Jan, Shamala Devi and Poornima Vyasulu for their comments on earlier drafts of the report, and to Malathi for meticulously typing it.

G. Suvarchala



SECTION 1

INTRODUCTION

It becomes increasingly evident that sustainable development necessitates decentralised planning and people's participation. The concepts thereto are gaining currency as the failures of conventional development strategies far outnumber the successes.

The notion of people's/community participation is, however, not new and in fact was very much in vogue in the early days of independent India. Increased intervention by government departments in the development activities, in the guise of welfarism, has led to erosion of these traditional practices.

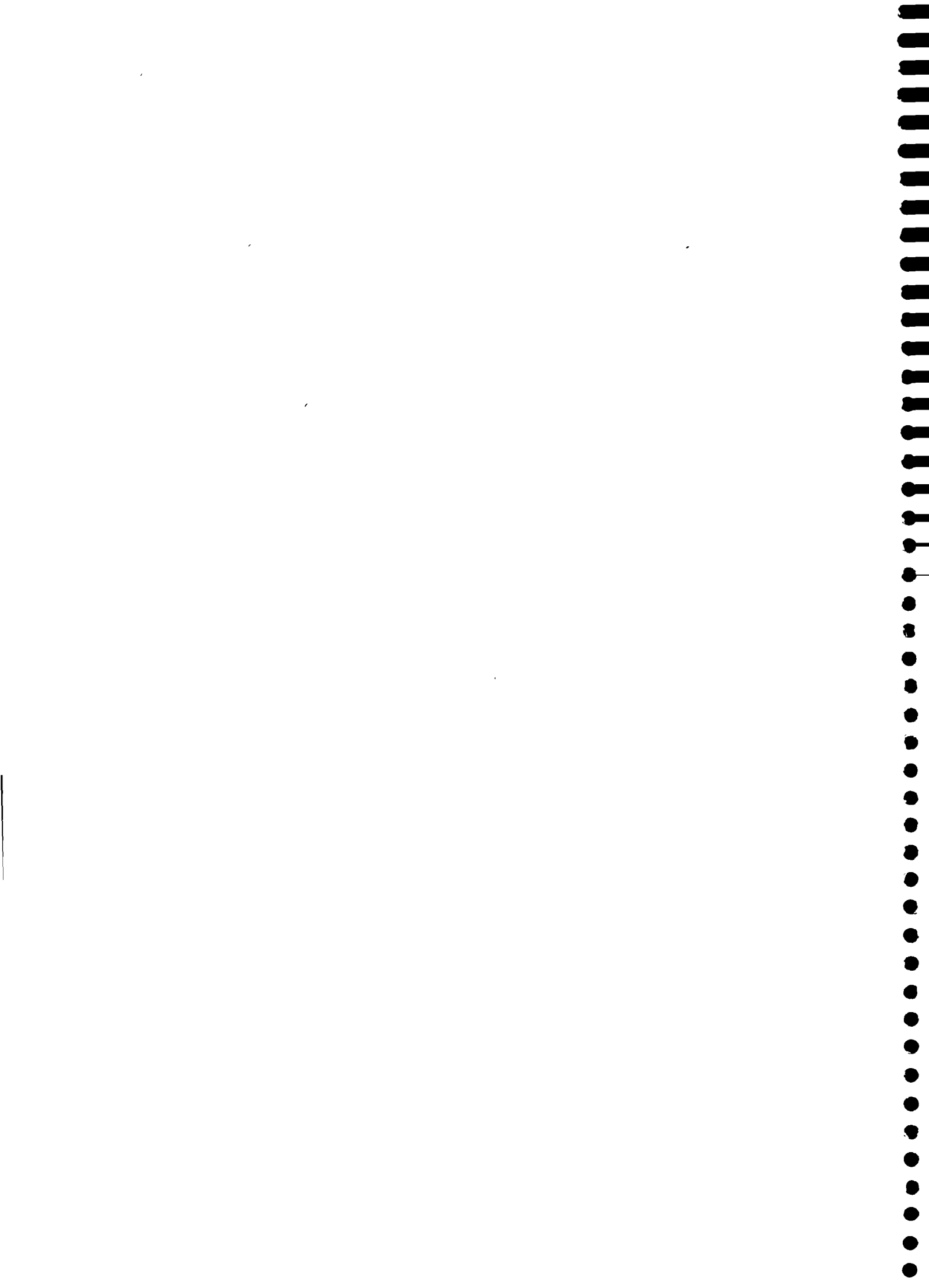
The term participation, of late, has become a buzz word in the development jargon and as Oakley notes '*in terms of thinking and practice about development we are currently in the age of participation*'. While emphasising participation, one need not limit the term to planning and may extend it to implementation and maintenance. This emphasis on participation in a way has resulted in wide use and refinement of methods like Participatory Rural Appraisal (PRA).

Much in accordance with current recognitions, several developmental projects are now being implemented by using PRA and similar methods. The Netherlands' assisted Integrated Rural Water Supply and Sanitation Project in Karnataka is one such project that emphasises participation in its strategies.

1.1 Background to Initiation of the Pilot Study

The Netherlands' assisted Integrated Rural Water Supply and Sanitation Project covering some 200 water problem villages in Bijapur and Dharwad districts of Northern Karnataka was due to start early 1994. Given the wide area of coverage and the strategies intended, the project considered it essential to test in advance the methodology for eliciting community participation on a pilot basis. While doing so, emphasis was laid on both planning and implementation concerning environmental sanitation aspects only.

¹⁾ "Planning for a Better Village" , ETC Foundation, 1993.



The pilot exercise was initially planned for five months from December 1992 to April 1993, but subsequently extended for another eight months till December 1993. In October 1993, it was decided to also include Anganwadi buildings in the exercise under a further extension.

1.2 Thrust of the Pilot Study

Though the objective of the main project focuses on Integrated Rural Water Supply and Sanitation, water supply was not emphasised for pilot study purposes. This was precisely because of the short duration initially envisaged for the pilot study as such. Four months would not really be sufficient for both planning and implementing water supply systems.

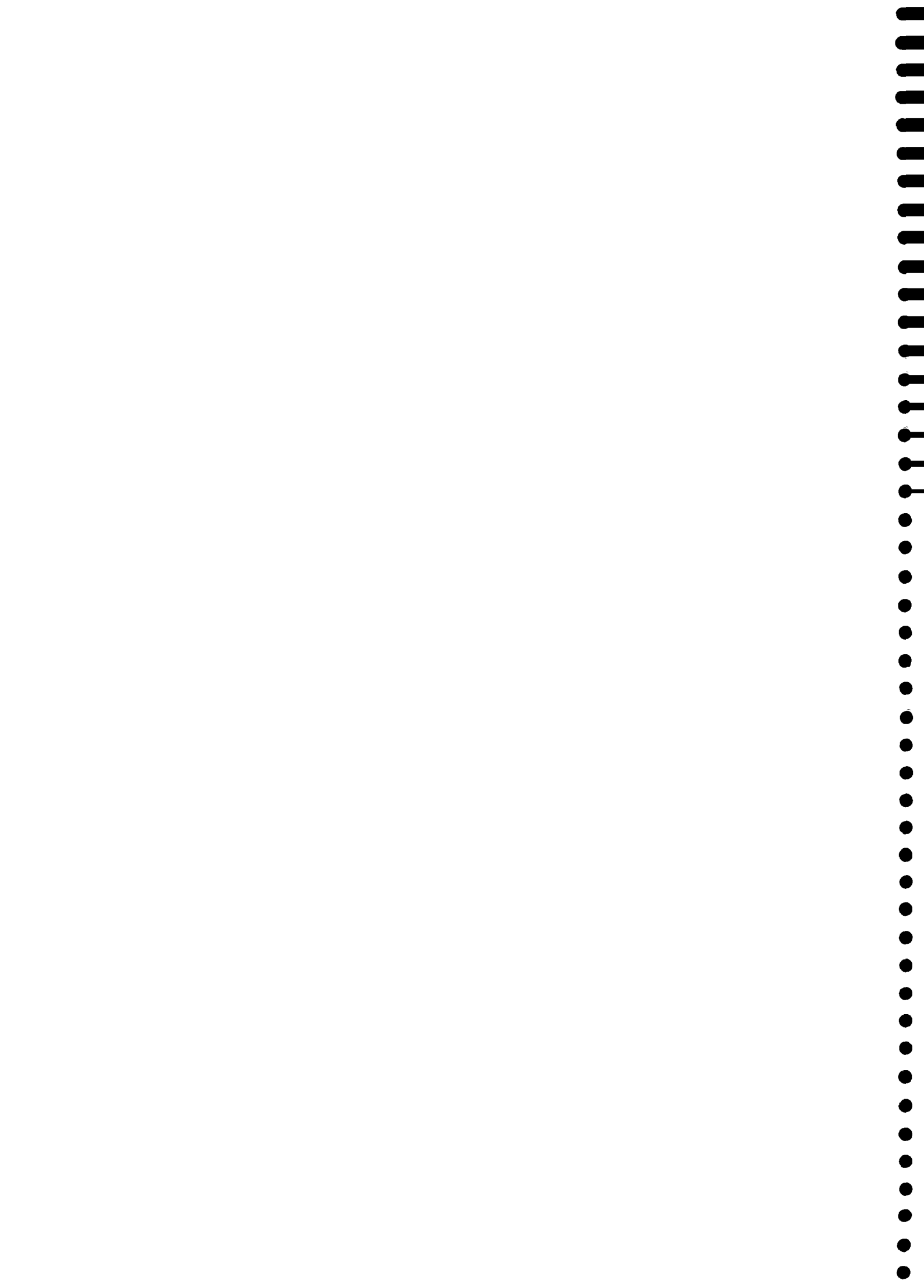
The environmental sanitation and hygiene/behaviour aspects targeted under the pilot study essentially concern community waterpoints, wastewater disposal and drainage. Given the time available, the chosen technologies needed to have the potential for easy and quick implementation. The technologies selected for environmental sanitation include waterpoint improvements , soakpits for household wastewater disposal, combined lane paving/drainage and direct/double pit latrines. In addition, the pilot study also intended to bring changes in defecation and handwashing practices and to improve the general quality of the village environment.

1.3 Criteria for Selection of Pilot Study Villages

Three villages located in the Bijapur district were selected for the purpose of the pilot study. While doing so, keeping in view the focus of the study, attempts were made to avoid villages in rocky terrain and with acute (seasonal) scarcity of water. The specific criteria used for selecting the villages were as follows:

- population ranging between 500 - 2,000
- village communities showing interest
- presence of village health workers
- Anganwadi facility or reasonable alternative available
- having a single-village water supply scheme
- limited political interference
- availability of local construction material

The study villages were selected after collecting relevant information pertaining to the aforementioned criteria through participatory mapping exercises and discussions with people of as many as 21 villages in the Bijapur district. The selected villages are located in Mudhol Taluk and are Jaliber, Jeergal and Varchagal.



1.4 Need for an Assessment

Since the exercise was initiated as an experiment and as the same methodology is to be replicated in all other villages of the main project, it was considered essential to assess the performance of the pilot exercise. It is with this intention that the Project Support Unit appointed an external consultant to carry out an assessment.

1.5 Report Objectives and Methodology

Objectives

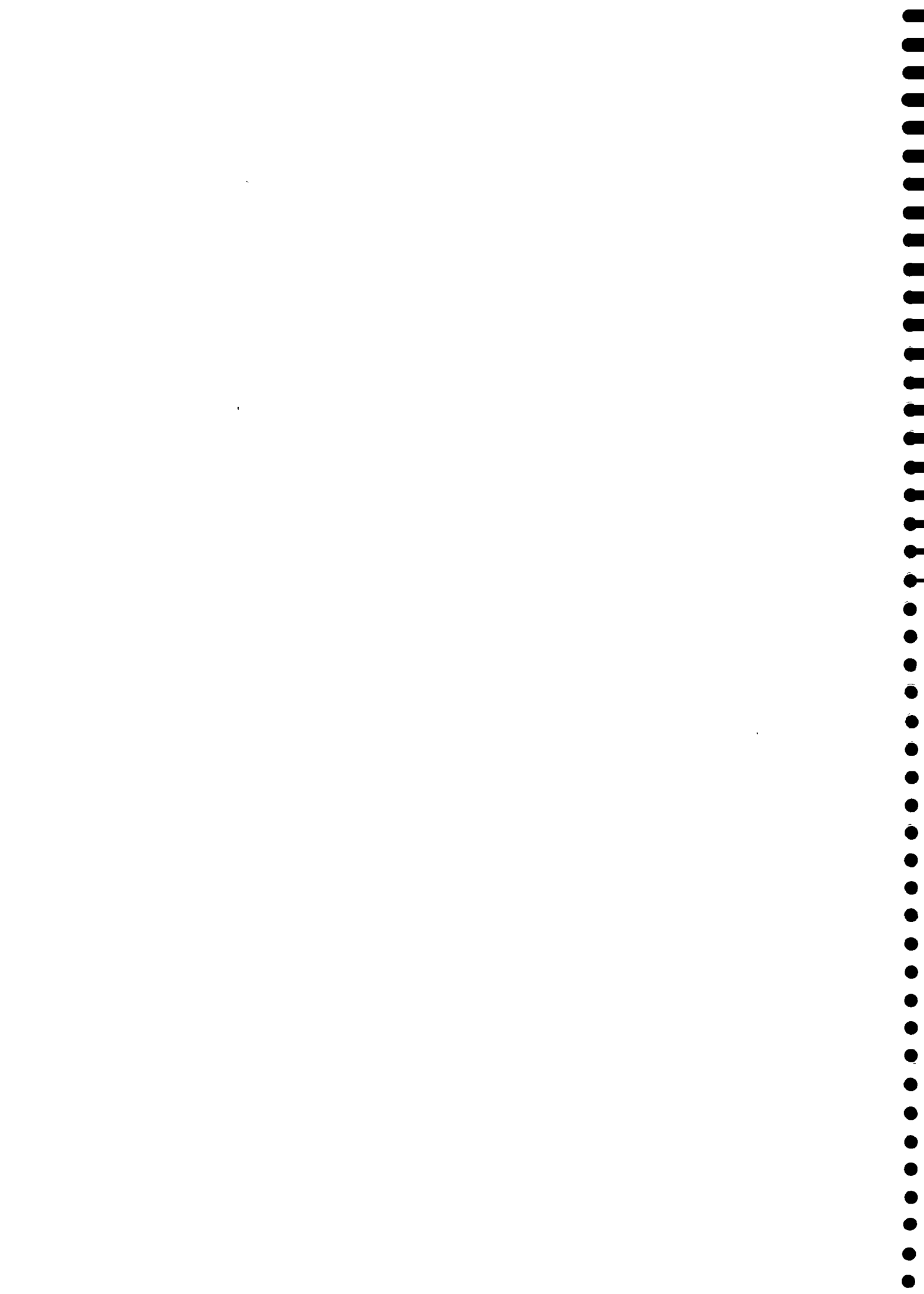
The present report aims to assess the performance of the pilot study in the three villages of Bijapur district. The objectives set are to identify achievements of the study as well as constraints that hindered planning, implementation and maintenance of environmental sanitation facilities and Anganwadi buildings in Jaliber, Jeergal and Varchagal villages.

Methodology

In order to realise the set objectives, the organizational pattern of the pilot exercise, the methods adopted and subsequently aspects of physical implementation and maintenance as well as extent of community involvement were examined. Relevant information was collected from the concerned documents and progress reports prepared by the Project Support Unit. To supplement the observations extracted from them and to get a clear idea about the manner in which community involvement and participation took place, visits were made to all three pilot study villages.

The villages were visited three times: in September 1993 after the completion of works like waterpoint improvements and lane paving; in October 1994 after the completion of construction of Anganwadi buildings in Jaliber and Varchagal; in June 1995 to see how the sanitation installations are being maintained by the people. The first visit lasted for six days with two days in each village. The second and third visits were shorter and took only two days. Three to six hours of time were spent in each village.

During the visits, details about general characteristics of the villages, extent of physical implementation and extent of community involvement, composition of village committees and background information on committee members were collected. In addition, village committee meetings were attended and discussions held with pilot field officers, pilot village workers, Anganwadi teachers, village health workers, traditional birth attendants, voluntary village workers, women, members of village committees, etc regarding achievements reached and constraints faced in planning, implementation and

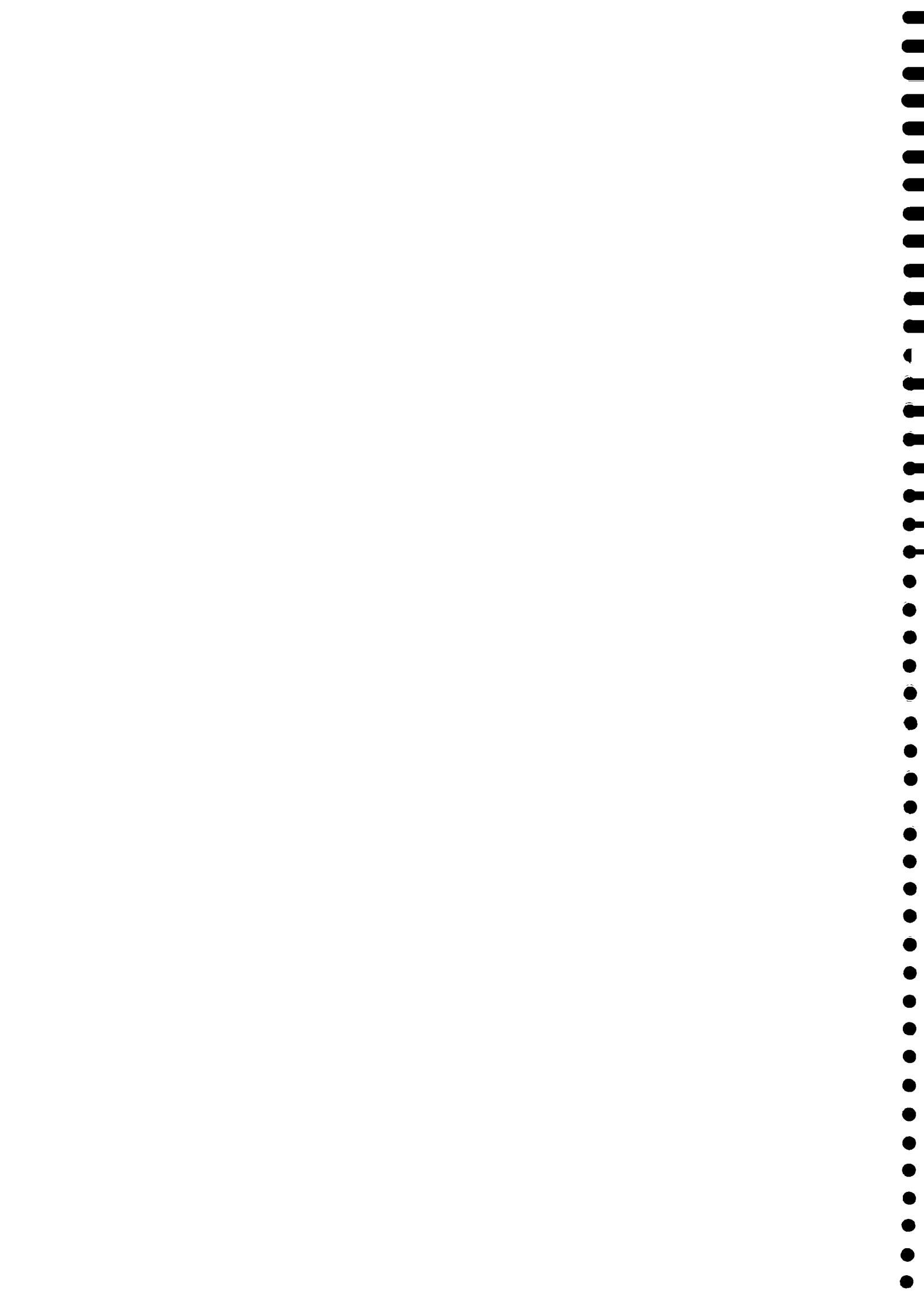


maintenance of the sanitation works.

1.6 Organization of the Report

The information thus gathered from reports and in the field through interviews and discussions has been analyzed and is presented in the following sequence.

Characteristics of the pilot study villages are described in Section 2. The organisational set-up and strategies/methods adopted for planning and implementing the pilot exercise are discussed in Sections 3 and 4 respectively. The performance and impact of the study is discussed in Section 5. Section 6 completes the report with conclusions and recommendations.



SECTION 2
CHARACTERISTICS OF THE STUDY VILLAGES

2.1 Locations and Populations

The pilot study villages - Jaliber, Jeergal and Varchagal - are located in Mudhol Taluk of Bijapur district. To give a brief account of the villages, Jaliber, Jeergal and Varchagal are located at a distance of nine, eight and twenty seven kms respectively from the taluk headquarters Mudhol. The numbers of households are 120, 230 and 195. The populations of Jaliber, Jeergal and Varchagal according to the 1991 census are 873, 1360 and 1071. In villages Jeergal and Varchagal the percolation capacity of the soils is low due to the prevalence of black cotton soil and rock, respectively.

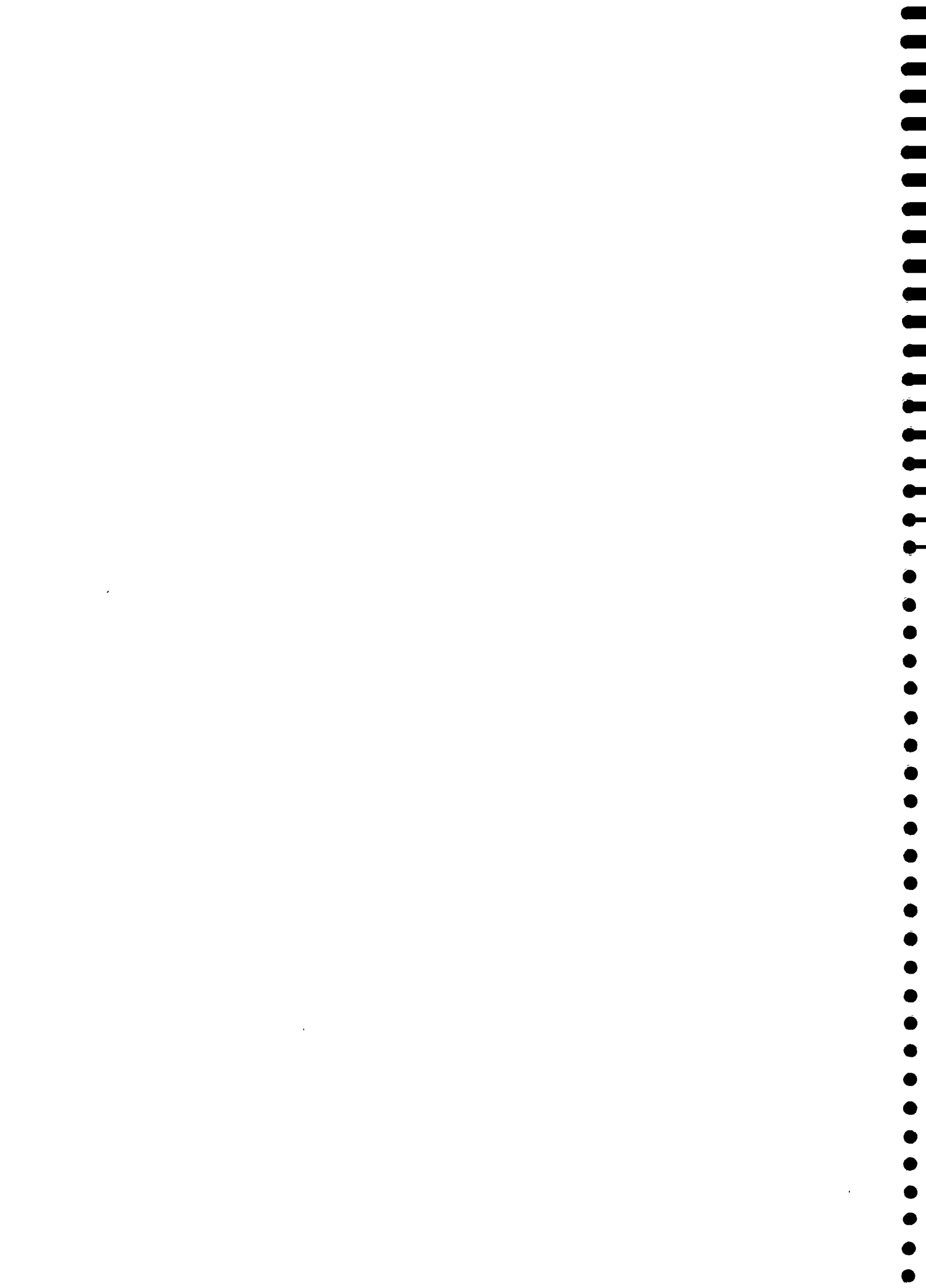
2.2 Social Structure

In terms of social structure, all three villages are heterogenous. Jaliber comprises people from Teli, Reddy, Yadava, Kuruba, Washerman, Barber and Scheduled Castes (Harijan) communities. The people of Jeergal belong to groups like Reddy, Lingayat, Uppara, Muslim and Scheduled Castes. Varchagal comprises people from the Lingayat, Reddy, Mason, Muslim, Valmiki and Scheduled Castes communities.

Among various social groups in Varchagal, there is some sort of unity and the traditional leadership still appears to have a hold over the village affairs¹. This, however, is not the case in Jaliber and Jeergal. In both, the nature of the relationship between Harijans and the other groups and among the other groups does not appear to be very cordial. In other words, both Jaliber and Jeergal are faction-ridden and the only variation is the number of factions. In Jaliber there are two; in Jeergal the number is four.

Like in any other Indian village, the Scheduled Caste people in the pilot villages reside separately from the other groups. The colony/voni in which the Harijans live is referred to as Harijan Keri. Similarly, the other vonis/streets are named after the caste group residing in or along it. Apart from the Harijan Keri and the main village, Jeergal and Varchagal have Janatha Colonies constructed by the Government of Karnataka. The numbers of vonis/streets in Jaliber, Jeergal and Varchagal are eight, nine and eleven respectively.

¹ This was well documented during one of the instances wherein the village experienced serious shortage of water for a week. The water supply was affected as one of the households owning 200 acres took advantage of a leak in the main supply pipeline and diverted the water to its agricultural fields located close by. The village development committee under the chairmanship of 'Patel' resolved the issue by assigning water distribution and control to a waterman/pump operator. The people of the Janatha Colony who work as wage labourers on the 200 acre landholding supported the village development committee by remaining neutral.



In all pilot villages, the lanes in the centre are narrow while the peripheral ones are comparatively broad. The houses are congested and have no proper ventilation facilities; there is no space between roads and houses (except in the Janatha Colonies of Jeergal and Varchagal and the Harijan Keri of Jaliber) and cattle and people live under the same roof. Compost pits are situated in front or adjacent to the houses in Jaliber and Varchagal, while they are located outside the village in Jeergal.

2.3 Occupation

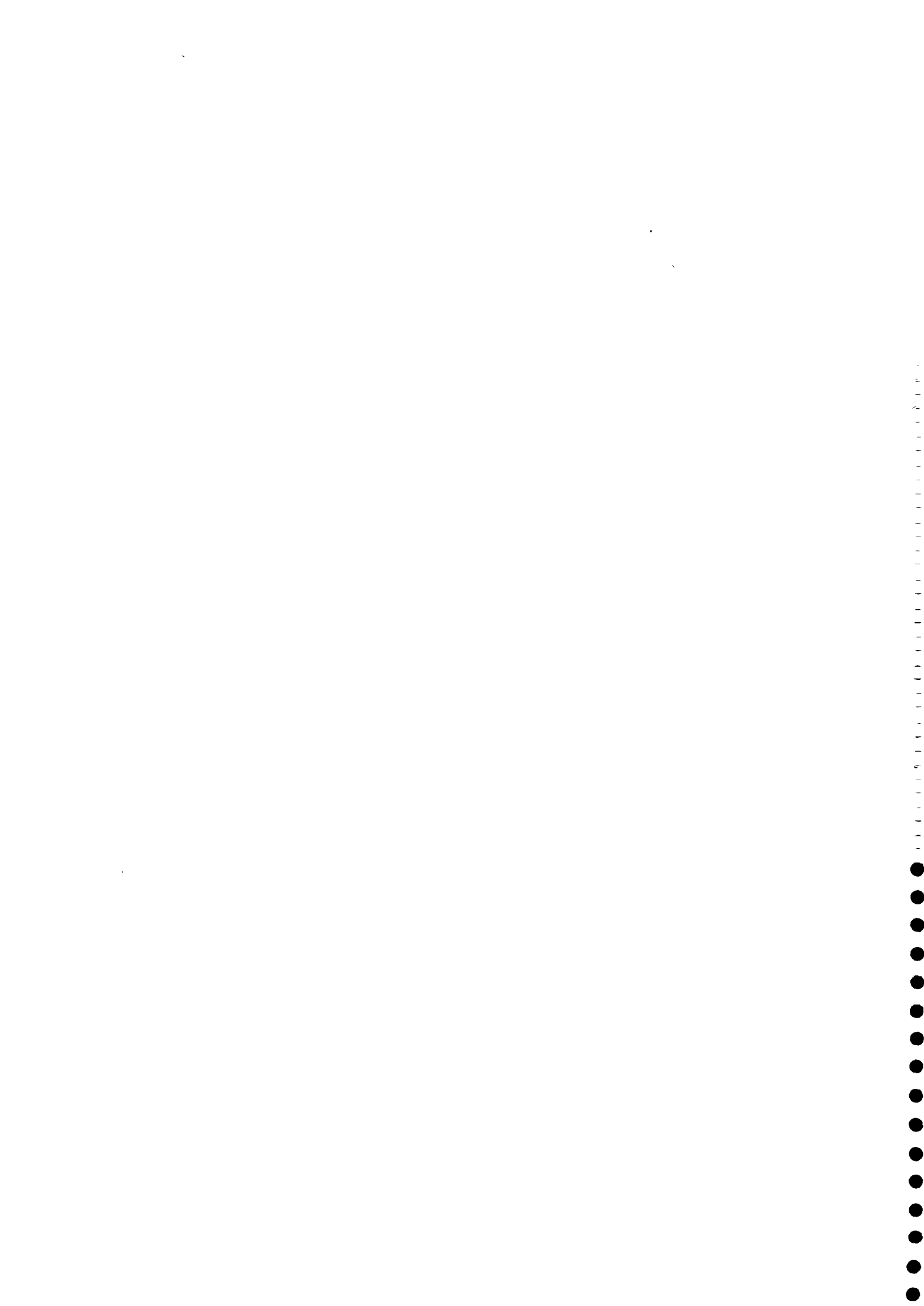
The primary occupation of the inhabitants of the three villages is agriculture either in the form of cultivation or wage labour. Most Harijans own marginal holdings or are landless and work as wage labourers. In Jaliber and Jeergal, the Ghataprabha River constitutes a major source of irrigation, while in Varchagal agriculture is rain-fed or depends on groundwater. The crops sown are sugarcane, jowar, cotton, wheat, maize, oilseeds and pulses. While sugarcane is mostly sown in areas with an assured source of irrigation, jowar and the other crops are cultivated where agriculture is rain-fed or depends on groundwater. The nature of work with regard to the sugarcane crop involves hectic activities throughout the year keeping both the cultivator and the wage labourers busy, except in the months of May and September.

Whatever the occupational pattern and the kind of crops grown, people of the three villages work six days in a week. The day of the weekly market fair is the rest day which is Friday in Jaliber and Jeergal and Tuesday in Varchagal. Many point out that labourers would not be available even at a wage rate of Rs 100/- per day on the days of weekly market fairs.

2.4 Water Supply

As regards water supply, Jaliber and Varchagal have single-village water supply schemes. Both villages have cisterns with taps and handpumps. The number of cisterns is four and three in Jaliber and Varchagal, respectively. In addition, there are two handpumps in each of the two villages. There are no serious problems concerning quantity and quality of water as such in these two villages.

However, this is not the case in Jeergal, where cisterns connected to a source located about 10 km from the village exist. Nevertheless water supply in terms of both quantity and quality is one of the serious problems faced by the people of Jeergal. The problem is the result of lack of maintenance and frequent breakdowns of the main supply pipeline to the village. Very often and for long periods, the people of Jeergal solely depend on the river Ghataprabha. The water problem, then, assumes serious proportions during summer when the river falls totally dry.



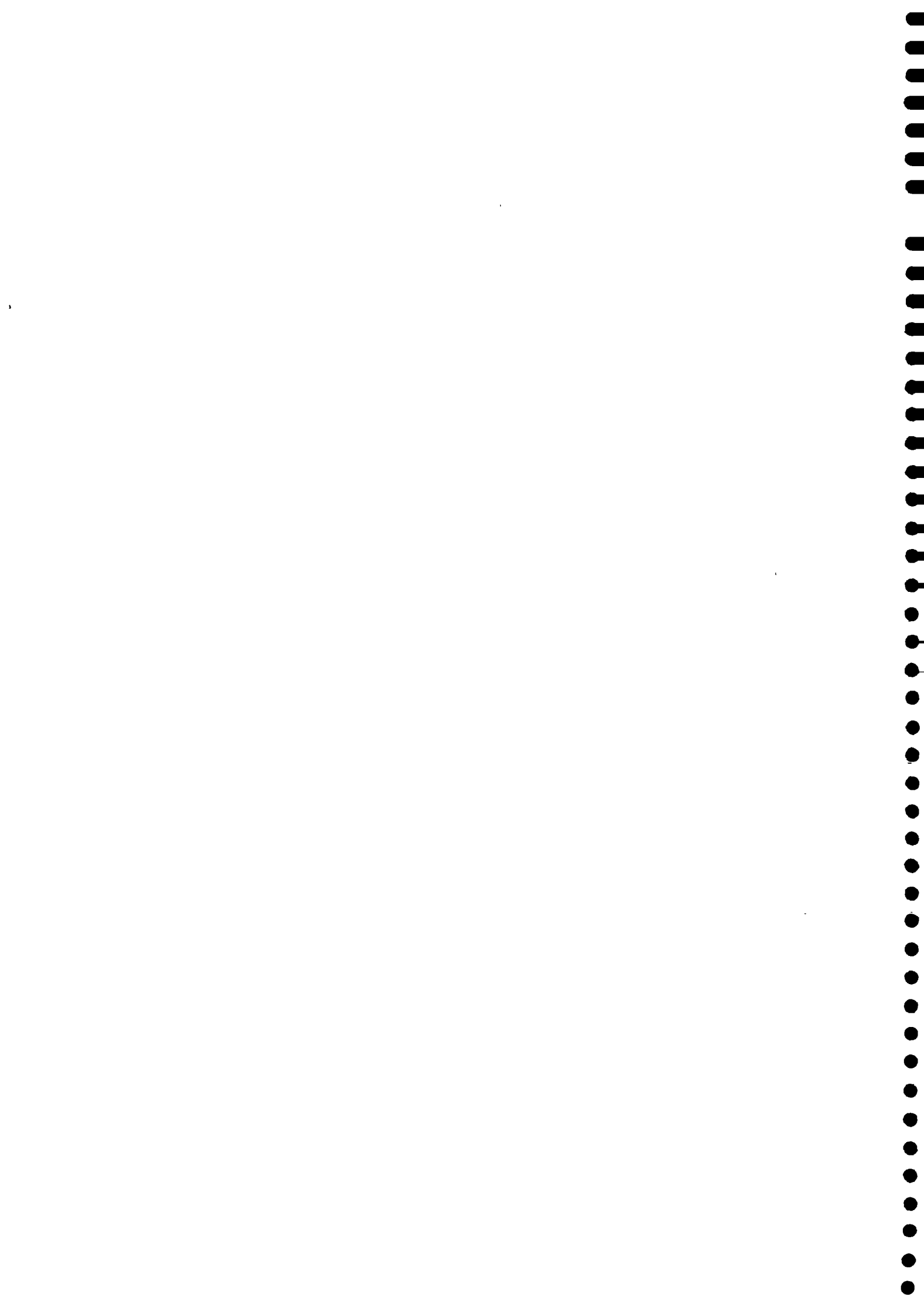
2.5 Anganwadi Facilities

All three villages have an Anganwadi facility. The Anganwadi school however is run in all three cases in either the primary school building, a temple or a samaj mandir, because there are no special buildings. The Anganwadi teacher of Jeergal resides in the village, while those of Jaliber and Varchagal live elsewhere and commute on a daily basis.

2.6 Existing Institutions

There appear to be informal organisations like youth clubs, bhajan mandals or prayer groups and mahila mandals in all three villages. In addition, Jeergal also has a dairy co-operative society.

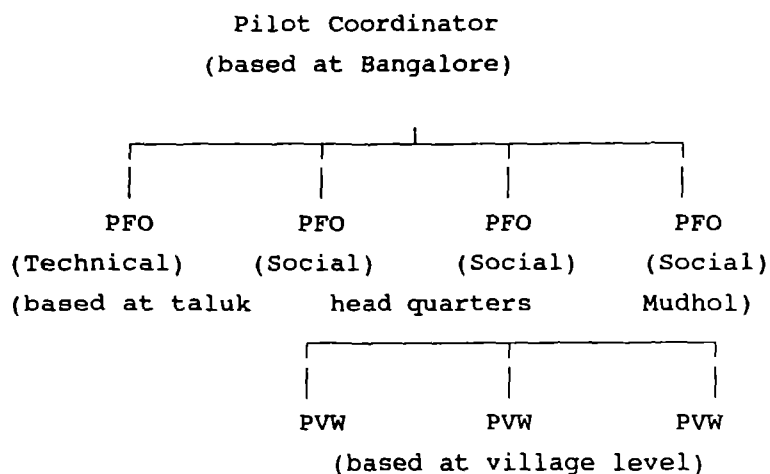
The mahila mandal in Jaliber was formed by Mahila Samakhya and in Jeergal and Varchagal by the Department of Youth Services, Government of Karnataka. The mahila mandal of Jaliber is essentially a Harijan women association and has actively participated in the construction of a mahila mandal building by contributing labour and material.



SECTION 3

ORGANISATIONAL SET-UP OF THE PILOT STUDY

The organisational pattern used to plan and implement the pilot study comprised a pilot coordinator, three (social) pilot field officers, one (technical) pilot field officers (PFOs) and three pilot village workers (PVWs). The same is presented in a diagrammatic form.

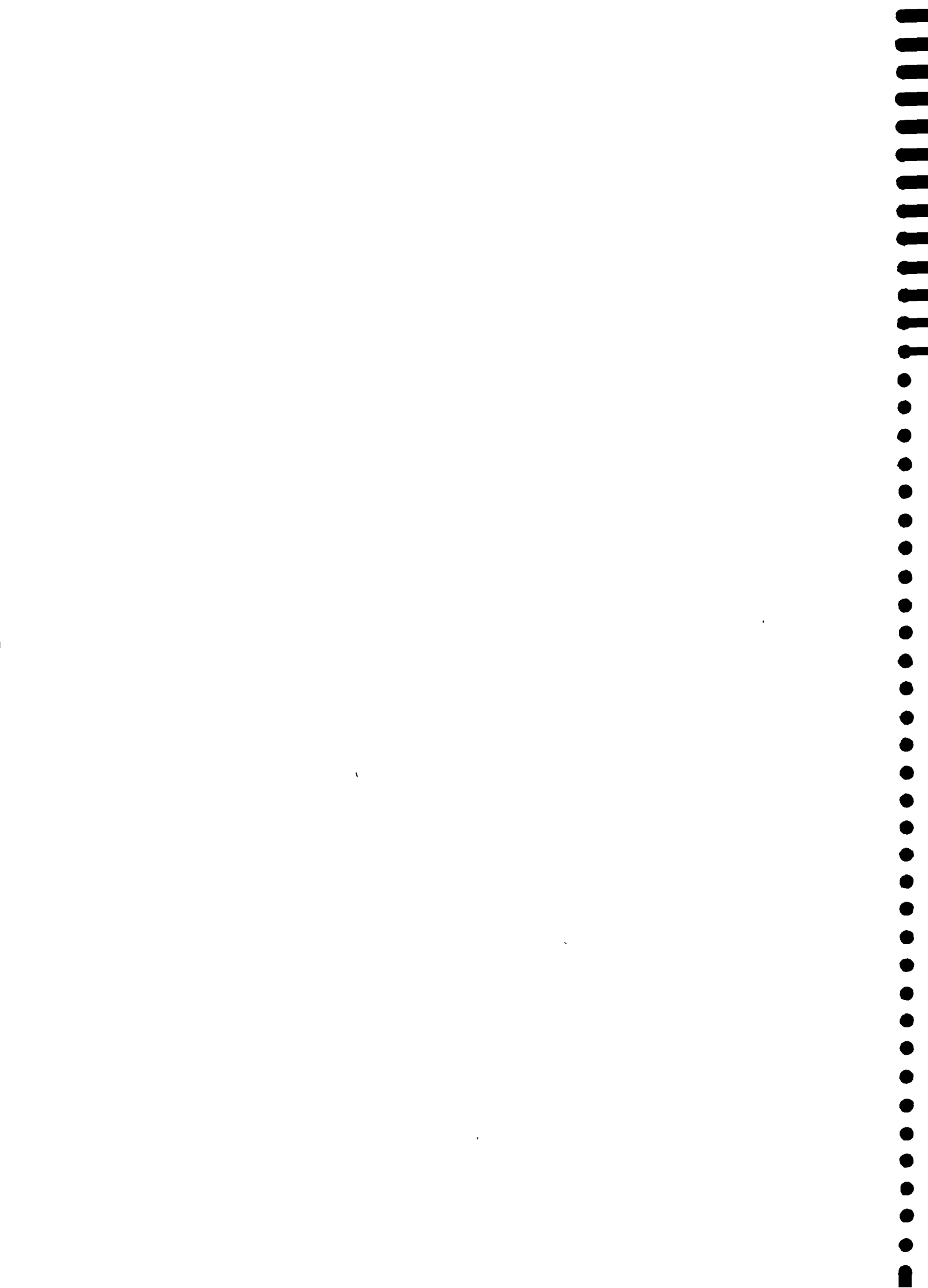


The pilot coordinator based at Bangalore was a community development expert entrusted with coordination of the activities of the PFOs.

The PFOs based at the taluk headquarters were the initiators and activators of the actual process of planning and implementation in each of the pilot villages. The PFOs (social) visited their respective villages almost every day, because their area of operation was confined to a single village. During their visits they advised and assisted the villagers in planning and implementing both household and community-oriented sanitation works. In addition, they apprised the communities from time to time about the progress of physical implementation, amounts sanctioned and amounts actually expended.

The PFO (technical) also visited the villages frequently and, among them, visits were planned according to need. He provided requisite technical assistance to the PFOs (social) but also prepared estimates which included the details about project and community contributions to the actual construction work for each village separately.

Though the total number of PFOs intended for the project was four, there were only three PFOs at the time of the field work for preparing this report, because the PFO (social) in charge of Jeergal had resigned and the PFO (technical) was given additional charge of Jeergal.



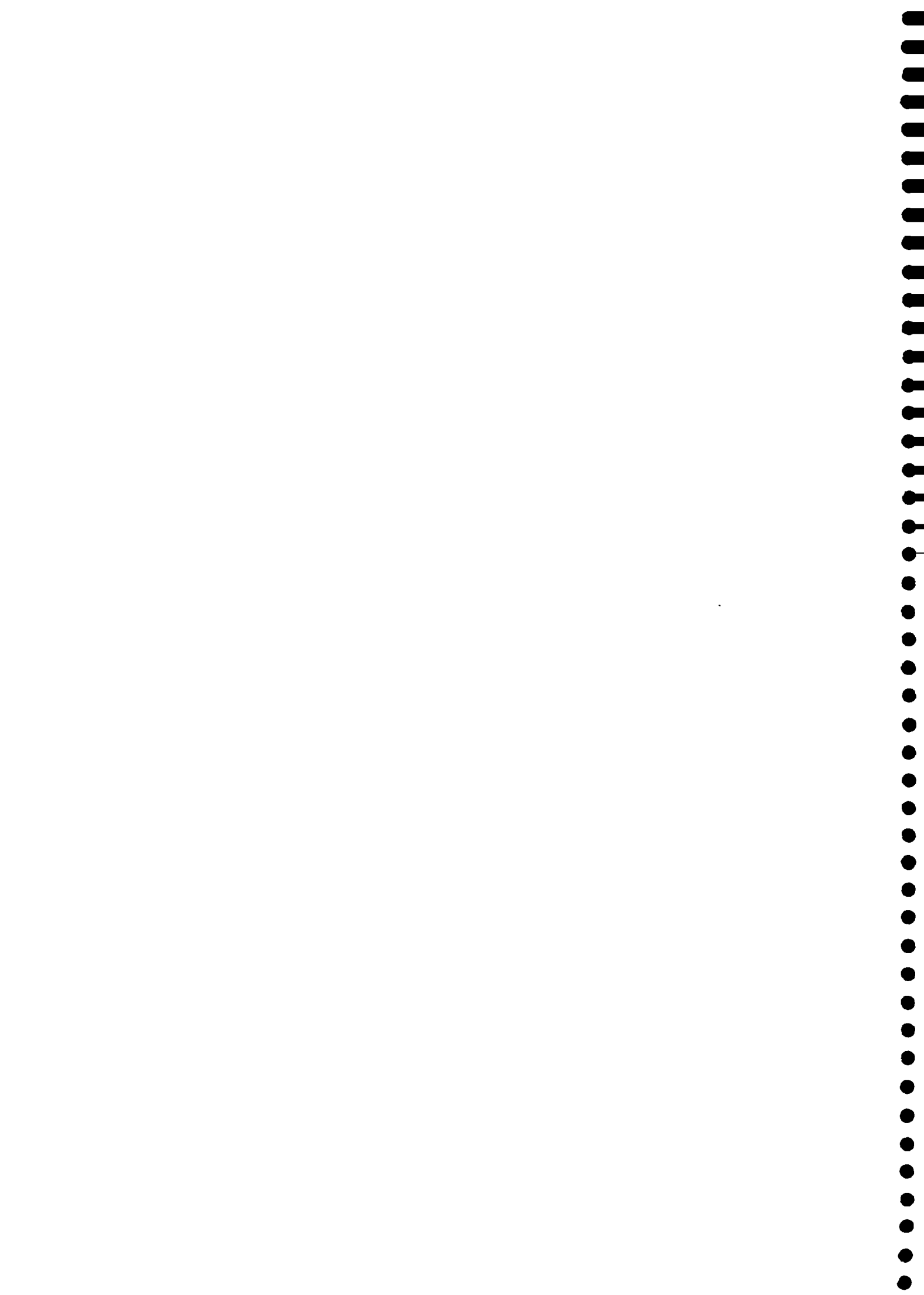
The PVWs based at village level assisted the PFOs and interacted with the villagers in planning and executing works. In other words, a pilot village worker in a way acted as a link between villagers and PFOs.

The PVW was to be chosen by the PFO from among the women residing in the village, with minimum 7th class education and willingness to involve herself in project work. This, however, proved not to be easy as women are generally reluctant to involve themselves in this kind of activities. However, with great difficulty, women PVWs could be appointed in Varchagal and Jaliber. In Jeergal, a male PVW was assigned the job. Subsequently, also in Jaliber the female PVW had to be replaced by a male as she resigned from the job.

In addition to the above staff, the project also intended to involve the Anganwadi teachers, traditional birth attendants and village health guides who work under the Departments of Women and Child Development and Health and Family Welfare respectively. This involvement was essentially sought so as to assist the PVWs while disseminating information regarding health, hygiene and sanitation. They were approached directly in seeking their involvement. The Anganwadi teachers of Jaliber and Varchagal could not be involved as they resided elsewhere. Only the Anganwadi teacher of Jeergal took part in the pilot exercise as she resided in the village itself. Also, traditional birth attendants and village health guides could not be involved properly. While the traditional birth attendants were illiterate women, the village health guides were male in all three villages but quite inactive since several years. However, in Jaliber, assistance was extended by the Anganwadi helper, while in Varchagal a woman belonging to the Muslim community became involved in the exercise. Besides, two youth club members of Varchagal with engineering and commerce background were involved quite actively.

Thus, the total number of persons involved in the pilot exercise comprised a pilot coordinator, four PFOs, three PVWs, one Anganwadi teacher, one Anganwadi helper, one Muslim woman and two youth club members.

Both the PFOs and PVWs were guided by their respective supervisors, while they apprised them about the activities taken up in the villages. With the help of these appraisals and by making visits to the field, the pilot coordinator reported on progress and supervised and coordinated the activities.



SECTION 4

STRATEGIES AND METHODS ADOPTED

In order to realise the objective of eliciting community participation and involvement, the pilot study adopted three basic strategies. The first one concerned training and orientation of the pilot staff, whereas the second and third pertained to contacting Taluk level officials and building rapport with villagers initially and establishing village committees subsequently.

4.1 Orientation and Training

Training and orientation courses were conducted for PFOs at Bangalore and for the PVWs at Mudhol. They were organised by involving resource persons from the National Institute of Public Cooperation and Child Development, the Kempe Gowda Medical College and the Sanitation Cell of the Public Health Engineering Department as well as Project Support Unit staff. The courses were essentially conducted to disseminate information concerning PRA techniques, linkages between sanitation and health, community involvement, strategies of the Integrated Child Development Services, sanitation technologies, national policies on sanitation and possibilities for change, etc. By and large, the methods used during the training and orientation courses were talks, discussions and visual aids in the form of charts.

4.2 Contacts with Officials

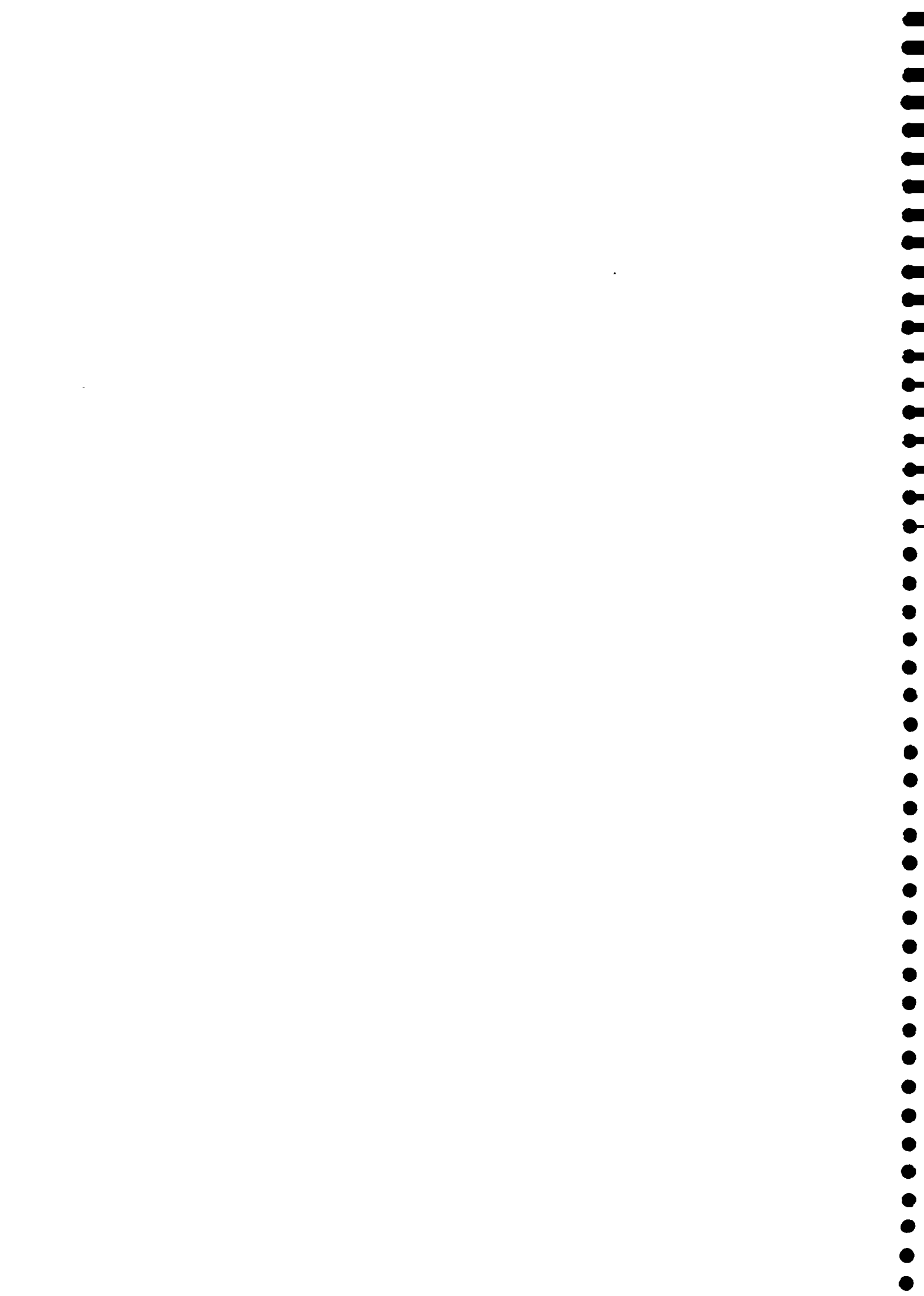
Further, as a more concrete step for realising the objectives of the study, the PFOs interacted with Block/Taluk level officials. The contacts were essentially made to introduce and realise the objectives of the pilot study.

The officials contacted were the Block Development Officer, the Child Development Programme Officer, the Assistant Director Health and Family Welfare and subdivisional engineers.

4.3 Building Rapport with Villagers

The interactions with villagers were initially aimed at general orientation and familiarity with the characteristics and environments of the villages and to build rapport with the inhabitants.

While doing so, methods like village rounds, informal talks and discussions with members of formal and informal organizations existing in the villages, Anganwadi and primary school teachers, youth leaders, village elders, women and ex-members of Mandal Panchayats and Zilla Parishads were used.



It was through these interactions that the pilot study was introduced; various related issues like the selection of PVWs, daily routines and problems of villagers, prevailing sanitation practices, availability of construction material and willingness of the people to contribute labour, material and/or cash were openly discussed.

4.4 Mapping Exercises

In order to give a concrete shape to these interactions, mapping exercises were conducted by involving on an average 25 villagers. While doing so, points like caste background, numbers of streets/vonis, temples, schools, of houses with backyard and with latrine facilities, places for Anganwadi centres, overhead tanks and locations for public standposts were considered.

4.5 Prioritisation of Needs

With the help of the information generated through the mapping exercises, further discussions were held at community places like temples/samaj mandirs regarding the problems of the villagers and prioritisation of their needs. In all three villages, waterpoint improvements, drainage and lane paving were given highest priority. As a further step to the identification of problems and prioritisation of needs, a survey was conducted to ascertain the availability of construction material and willingness of the villagers to contribute labour, material and/or cash and estimation of the pertaining costs.

In addition, attempts were also made to change the practices of villagers regarding defecation and disposal of household wastewater. While doing so, the focus of attention was directed towards women and children. To disseminate the relevant information, methods like holding discussions, using flip charts and conducting exercises in speaking for school children and streetplays were adopted.

4.6 Action Plans

Subsequently, draft action plans were prepared for the three villages by the respective PFOs. Action planning became an ongoing process, repeated as and when an idea was mooted to undertake an activity. The action plans

- list and prioritise the activities to be undertaken under the pilot study
- indicate the dates of starting and completion for each of the activities
- estimate the involved costs for material, labour, tools and transportation, etc
- deal with actual performance in terms of labour contribution, provision



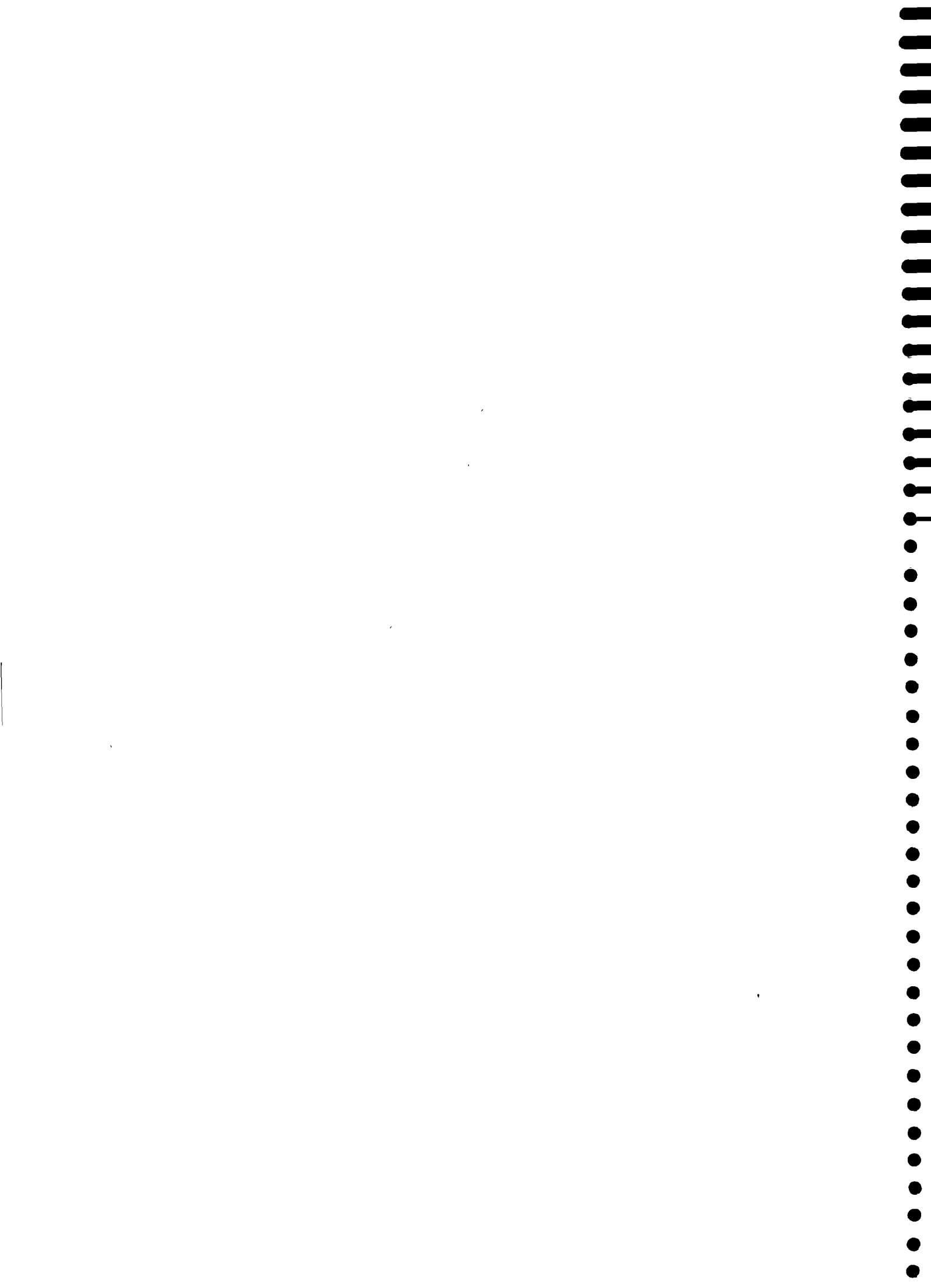
- of material and supervision
- determine how and by whom various activities will be managed

4.7 Establishment of Village Committees

While identifying the problems and prioritising the needs of the villagers and conducting the mapping exercises, the pilot staff also raised the issue of the formation of village committees. In fact, it was with village committees, that priority ranking and action planning for each of the three villages were finalized.

The idea of establishing village committees, however, did not evoke uniform response. Certain sections from backward groups, especially women and Harijans, remained silent or resisted the idea. The issue, however, could be resolved by proposing a modification, viz. wherever there is resistance, two committees - a sub-committee for a particular group and a committee for the entire village - were established. Thus, village Jaliber got two committees - a sub-committee for the Harijan Keri and a committee at the village level. The same, however, was not necessary for the other two villages. The size of the village committees varied from village to village, viz. 22, 15 and 33 in Jaliber, Jeergal and Varchagal respectively. The selection of members of the village committees was done mainly through nomination.

A majority of the committee members in the three villages came from forward caste groups, was land-owner and involved in cultivation. The proportion of forward caste members in the total membership of the village committees in Jaliber, Jeergal and Varchagal was 75%, 85% and 75% respectively. As regards the presence of women, representation was achieved in all three villages. The only variation was in terms of number; in Jaliber and Jeergal there were one and two women members, whereas in Varchagal 13 of the members of the committee were women.



SECTION 5

PERFORMANCE AND IMPACT OF THE PILOT STUDY

Given the basic focus, the performance and impact of the study may be assessed by considering its achievements in terms of physical implementation, extent of community involvement and changes perceived in the health status of people. While doing so, an attempt will also be made to identify the constraints that hindered the processes of planning, implementation and maintenance.

In all three villages, the physical implementation of works was initiated as per priority ranking of needs of the villagers. The ranking of needs was such that waterpoint improvements, construction of drains and lane paving were given highest priority. The requisite finances for physical implementation of works were provided by the Project Support Unit directly through the PFOs.

The physical implementation of works undertaken in the pilot villages includes:

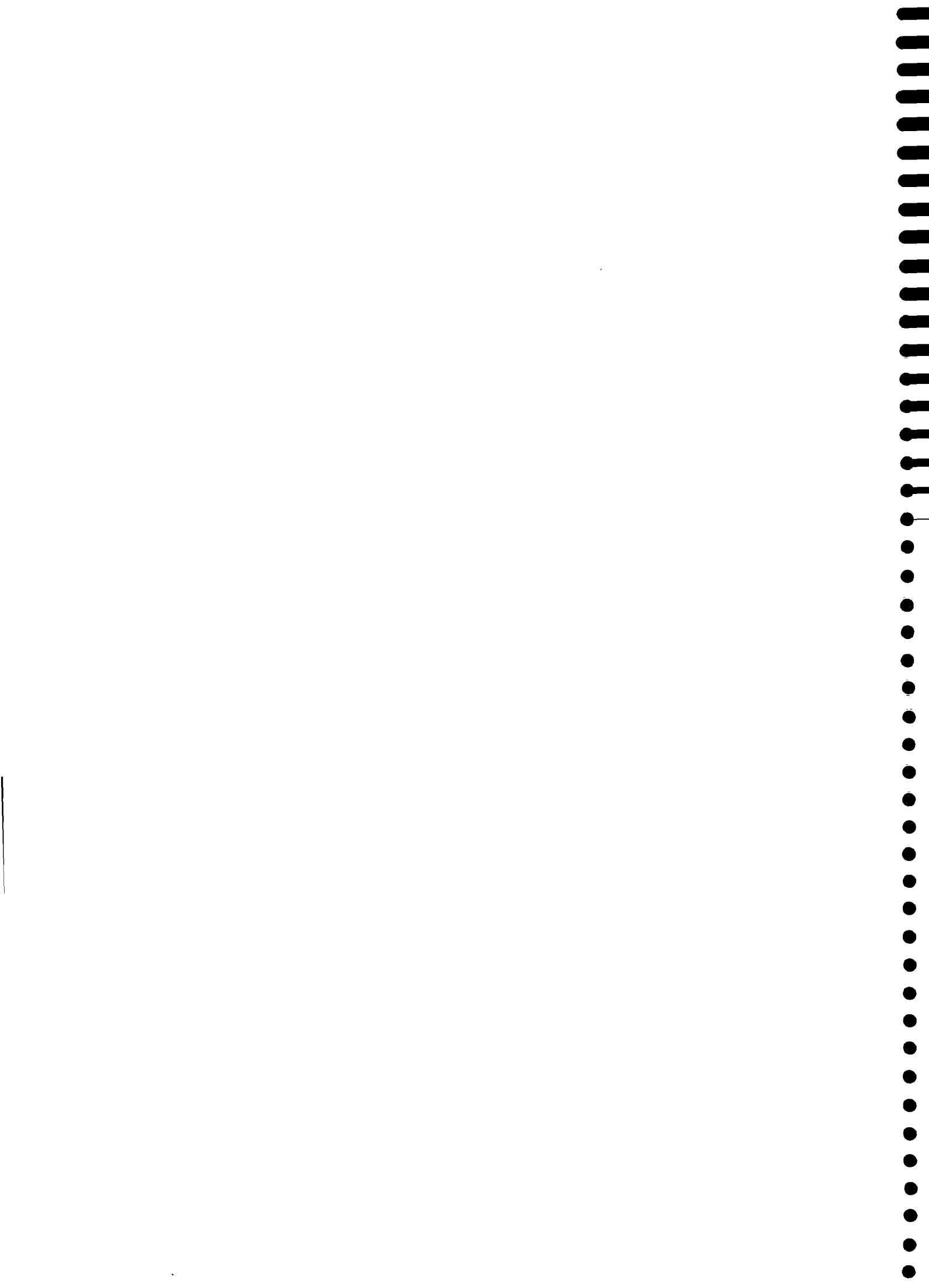
Village	No. of Water-Points Improved	No. of Drains Constructed	Lanes Paved	No. of Latrines Completed
Jaliber	6 (6)	5	4 (8)	6
Jeergal	-	3	7 (9)	6
Varchagal	5 (5)	5	8 (11)	5

Note: The figures in brackets indicate the total numbers of waterpoints and lanes present in the pilot villages

5.1 Waterpoint Improvements

The waterpoint improvements in the villages of Jaliber and Varchagal included the repair of taps, construction of platforms, provision of cattle troughs, cattle washing platforms and cloth washing slabs. In Jeergal, waterpoint improvement was essentially confined to platform construction; other works were not undertaken as the villagers depend on the river Ghataprabha rather than the existing mini-water-schemes for their water needs.

As already pointed out, the villages Jaliber and Varchagal have four and three water cisterns respectively and two handpumps each. In Jaliber, the waterpoint improvements were undertaken at all cisterns and near both handpumps. Groundlevel platforms were constructed at all waterpoints except at the Uttur road cistern. The platform of the latter cistern is a raised one - nearly 2 feet above ground. Two washing slabs each were installed at the cisterns near the Harijan Keri entrance and in the centre of the village (Kelagina voni). The washing slabs near the Harijan Keri entrance and in the centre of village



are quite close to the cisterns (about four feet distance), while those along the Uttur road are slightly away (about 15 feet distance) from the cistern. One cattle trough each was constructed at the waterpoints along the Uttur Road and in the centre of the village.

In Varchagal, waterpoint improvements were also undertaken at all cisterns and handpumps. Groundlevel platforms were constructed at all points, except at the village entrance cistern and handpump. Four cloth washing slabs and a cattle trough were constructed at all three cisterns.

5.2 Construction of Drains

Simultaneously with the waterpoint improvement programme, the construction of drains was undertaken in all three villages. The construction of drains with or without lining took place at waterpoints and for some households so as to collect rain water and (household) wastewater. The drains thus constructed were ultimately connected to a soakpit or provided with an outlet onto nearby agricultural fields or into the river Ghataprabha.

In Jaliber, the construction of drains was completed near the cistern and the handpump located at the village entrance. The drain near the Uttur road waterpoint is an open ditch and empties onto agricultural fields. The drain near the cistern located in the centre of the village is a partially covered one with a length of more than 300 metres and two cleaning openings and also collects household wastewater. This is because of the failure of soakpits due to the low percolation capacity of the soil in the area. The flow is let off into the river Ghataprabha through a 300 metre open ditch along the path leading to the river.

In Jeergal, drains were constructed near both water cisterns. In addition, a drain was also constructed in the Harijan Keri to collect household wastewater.

Similarly in Varchagal, drainage construction was completed for all water cisterns. In addition, a drain was constructed at the village entrance to collect rain water.

5.3 Lane Paving

Lane paving was also undertaken in all three villages. In Jaliber, out of eight vonis/streets, parsi/lane paving was done along four. While the Harijan Keri lane was paved under another programme, the others were executed under the pilot study. The lane paving was done in such a way that the edges of the lanes are higher than their central portions (V-shape paving). This is especially so along two lanes. In addition, in the Harijan Keri, parsi has



been laid around the temple.

In Jeergal, out of nine streets, lane paving was done for 7. Six streets were paved under the pilot study while in the lane leading to the river Ghataprabha, paving was done partly by the government.

A similar situation prevails in Varchagal. Out of 11 lanes, parsi construction has taken place in eight under the study, while one lane was partly paved by the government.

5.4 Planting of Saplings

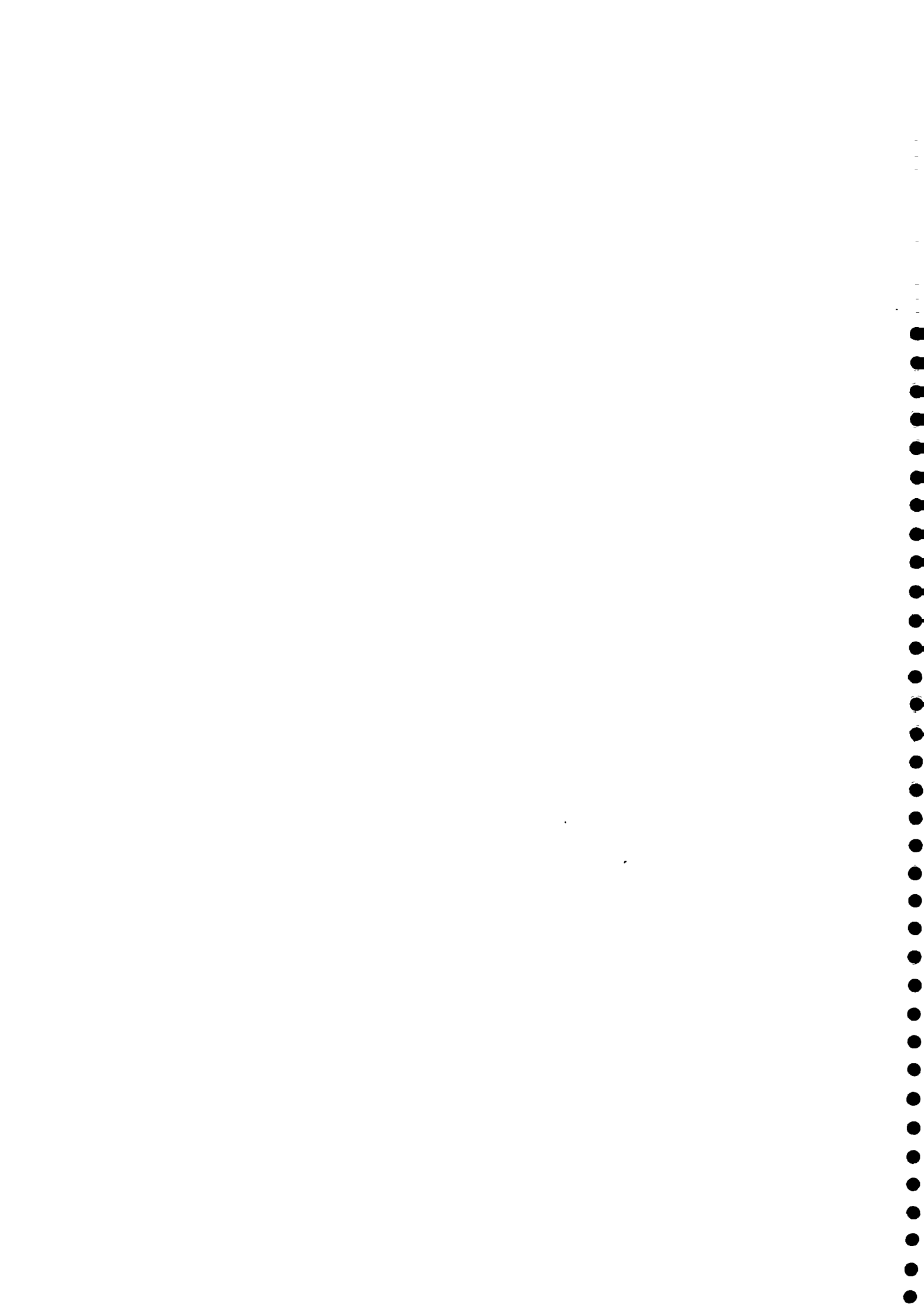
In addition to waterpoint improvements, drains and lane paving, social forestry was also attempted in all three villages. In Varchagal, saplings were planted on both sides of the parsi in the Janatha Colony and near waterpoints at the village entrance. The total number of saplings planted in Varchagal was approximately 125. In Jaliber and Jeergal, however, sapling planting was yet to gain momentum at the time of the first visit. But also subsequently, the sapling planting did not receive a good response in Jaliber and Jeergal due to the indifference of the villagers and water scarcity respectively.

5.5 Soakpits and Latrines

Simultaneously with the community-oriented sanitation, the construction of household sanitary installations took place. Among them, only soakpits and latrines were considered in all three villages. For nearly 90% of the households in Jaliber and Varchagal, soakpits became the means for disposal of wastewater. Wherever there were problems of digging pits and of percolation, provisions were made to let the wastewater directly into a drain via a cement/plastic pipe. In Jeergal, the situation is quite different however. At the time of the first visit to Jeergal, only 10% of the households used soakpits for disposing of wastewater.

With regard to the construction of latrines, the situation in all three villages appears to be similar. The number of households that completed the construction of a latrine are six, six and five respectively in Jaliber, Jeergal and Varchagal.

On the whole, with regard to the construction of latrines in Jaliber and Varchagal and both latrines and soakpits in Jeergal, the response of the villagers was not encouraging. But given the nature of the area, where digging is often a problem, the age-old practices of open defecation and the duration of the study as such do not constitute appropriate pre-conditions to expect rapid progress.



5.6 Anganwadi Buildings

Besides the aforementioned environmental sanitation works, Anganwadi buildings were constructed in all three pilot villages. In Jeergal and Varchagal, the buildings were constructed on government land, while in Jaliber on private land. While the pilot study provided Rs 80,000 - for construction purposes, the balance amounts were contributed by the villagers in one form or the other.

5.7 Extent of Community Involvement

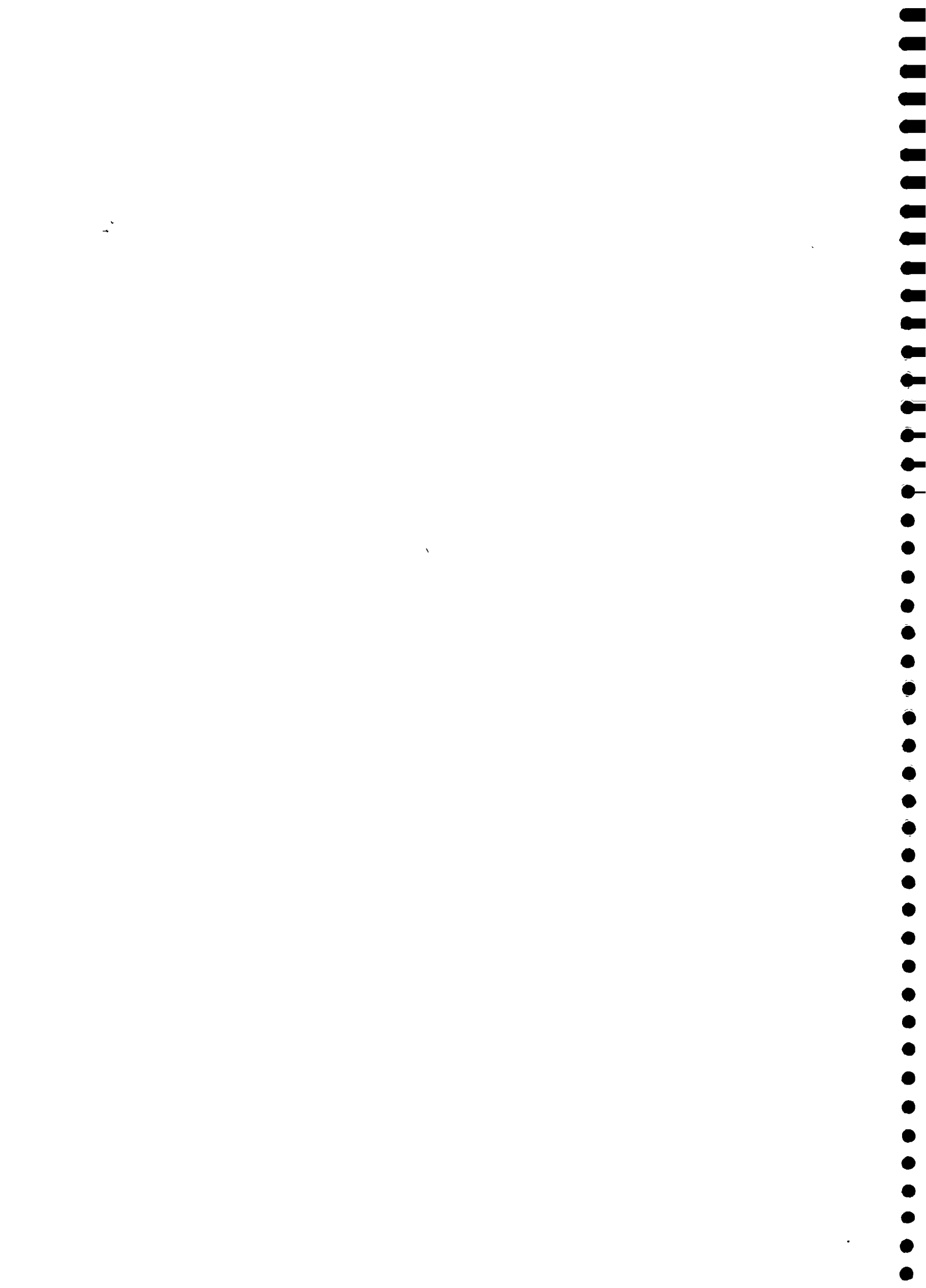
At the outset, given the extent of physical implementation in the pilot villages, the performance of the study may be judged quite satisfactory. However, in view of its emphasis - environmental sanitation works through community involvement - it is essential to examine the extent of community involvement in the pilot activities. This may be done by considering time of initiation, time taken for completion and actual involvement of the villagers.

As already noted, the pilot study started in December 1992. In all three villages, mapping exercises, prioritisation of needs and formation of village committees were completed by the second week of January 1993. However, except in Varchagal, almost all major community-oriented construction works were initiated in the months of March/April 1993 only, by which time the study should have been completed actually.

For instance, in Jaliber, the construction of platforms for the village entrance handpump, the Uttur road cistern, the village entrance cistern and the cistern located in the centre of the village started in the months of April, May, June and July respectively. Similarly, the digging and construction of drains for the cisterns located along the Uttur road and in the centre of the village started in the first week of September only. Further, there is yet another cistern located opposite to the samaj mandir which has not witnessed construction of either a platform or a drain. These activities were undertaken subsequently at a later date.

A similar situation prevails in Jeergal too. The only difference is that the involvement of the community was somewhat better in lane paving than for the other works. This may be because of the serious problems posed by the black soil during the rainy season and the strong involvement of a limited number of people. Apart from the late starting dates, construction and completion of certain works took more time than originally anticipated too.

With regard to the Anganwadi buildings, the construction works started in October 1993 in Varchagal and in December 1993 in Jeergal and Jaliber. Though the sanctioning came through in September already, actual construction work



was delayed in Jaliber due to a dispute over landownership rights. While the Anganwadi buildings in Jaliber and Varchagal were inaugurated in June 1994, the construction work was still in progress in Jeergal at the time of second visit (October 1994) to the pilot villages and only scheduled to be completed by December. The work got delayed for want of water for concreting and curing purposes.

As far as the community involvement is concerned, the households of Teli, Reddy, Yadava and Kuruba in Jaliber contributed money ranging between Rs 100/- to Rs.2,000/-, provided a tractor four times for the transportation of construction material and donated land for construction of the Anganwadi building. At the same time, the Harijans being solely dependent on daily wage labour participated in the construction by contributing labour to a limited extent. In Jeergal, the Reddy and Lingayat households provided a tractor seven times for the transportation of material, while Harijan households participated in the construction by actively contributing labour. The Muslim, Uppara and Carpenter households, however, kept away from the work. In Varchagal, all villagers participated in the construction work, directly or indirectly. While the people of the main village provided space for storing construction material and transport, the people of the Janatha Colony contributed hard labour.

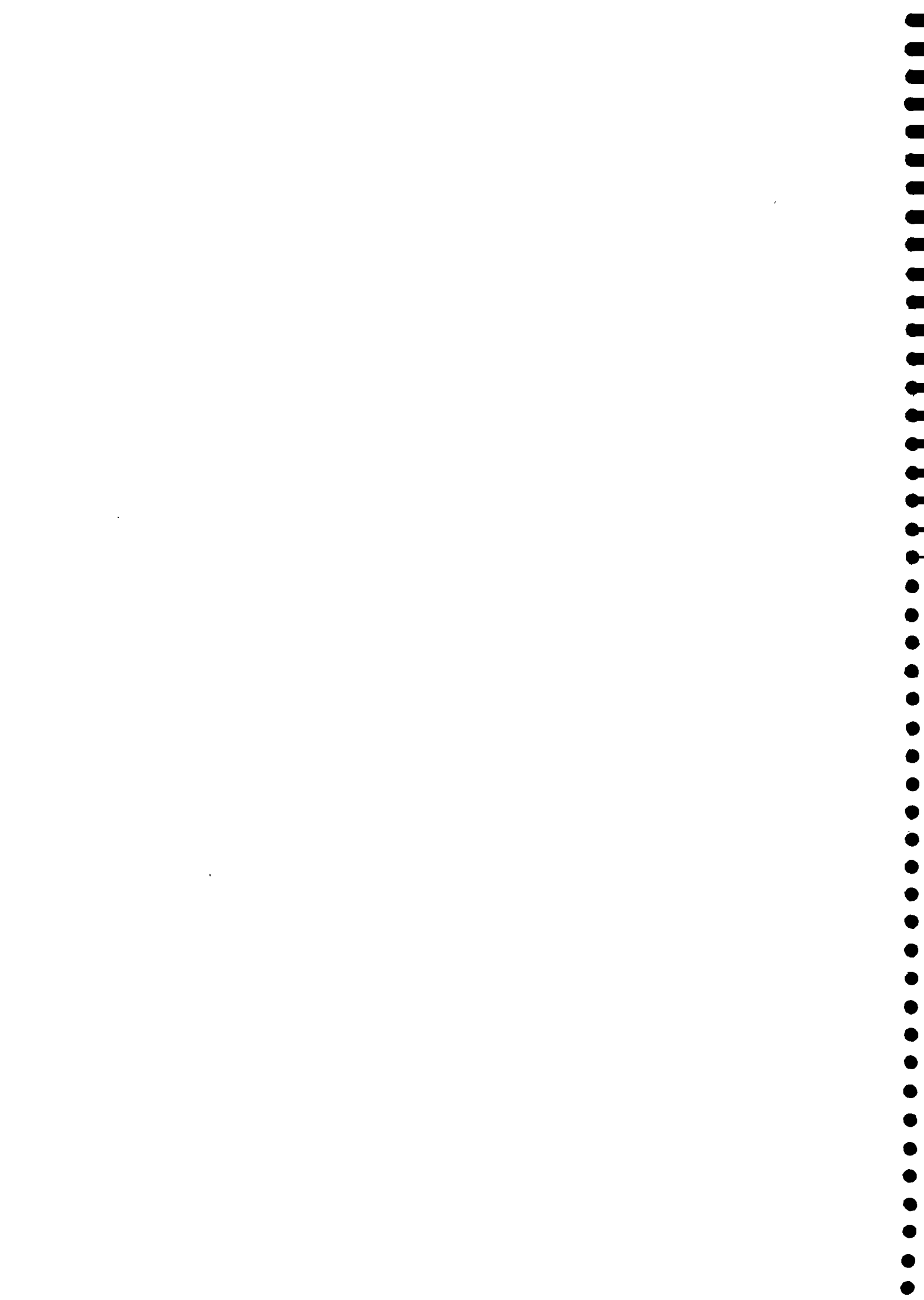
Whatever may be the difficulties faced in involving the villagers during the initial days of the pilot study, the Anganwadi building construction definitely instilled confidence about the project in the minds of the people. So much so that women in Jeergal, at the very first sight of the consultant and other project staff during the third visit, began to enquire about the main water supply project and to discuss the manner in which the paved lanes and drains are being maintained, the impact of the pilot study on health and the pollution of the river Ghataprabha.

5.8 Reasons for Delay in Works

Though the extent of community involvement increased with time, it appears essential to analyze the factors that constrained the work in the initial days of the study. On further probing, it is realised that the constraining factors are several and to some extent rooted in the very nature of the environment of the villages.

5.8.1 Factions

As already noted before, the villages Jaliber and Jeergal are faction-ridden. Only the degree of complexity differs. The complexity is somewhat less in Jaliber where there are only two factions, whereas the people of Jeergal are divided into four factions with each group identifying itself with a different



political party.

The problem in the initial days of the study in both villages was so intense that any action initiated/proposed by one group, irrespective of its importance and necessity, invariably met with opposition from the other group(s). Elaborating further, one of the members of the village committee in Jeergal noted that even attendance to committee meetings depended on the arrival of the first person and the faction to which he belongs and the venue of the meeting. For instance, if a member of one faction arrived first, the members of the other factions stayed away from the meeting. Similarly, if the venue of the meeting is the temple in Kalmeswar voni, people from the Jandar voni used to absent themselves from the meeting.

As a result of this, the village committee in Jaliber needed to be formed twice. The situation in both villages, however, improved through the persuasive efforts of the PFOs to make faction members realise themselves the ill-effects of groupism on overall village development. This exercise took nearly three months.

5.8.2 Occupational Pattern

Further, the prime occupation of the villagers is agriculture, either in the form of cultivation or of wage labour. Sugarcane being the major crop and the kind of hectic work that is involved, many cultivators considered it difficult to stay away from the fields.

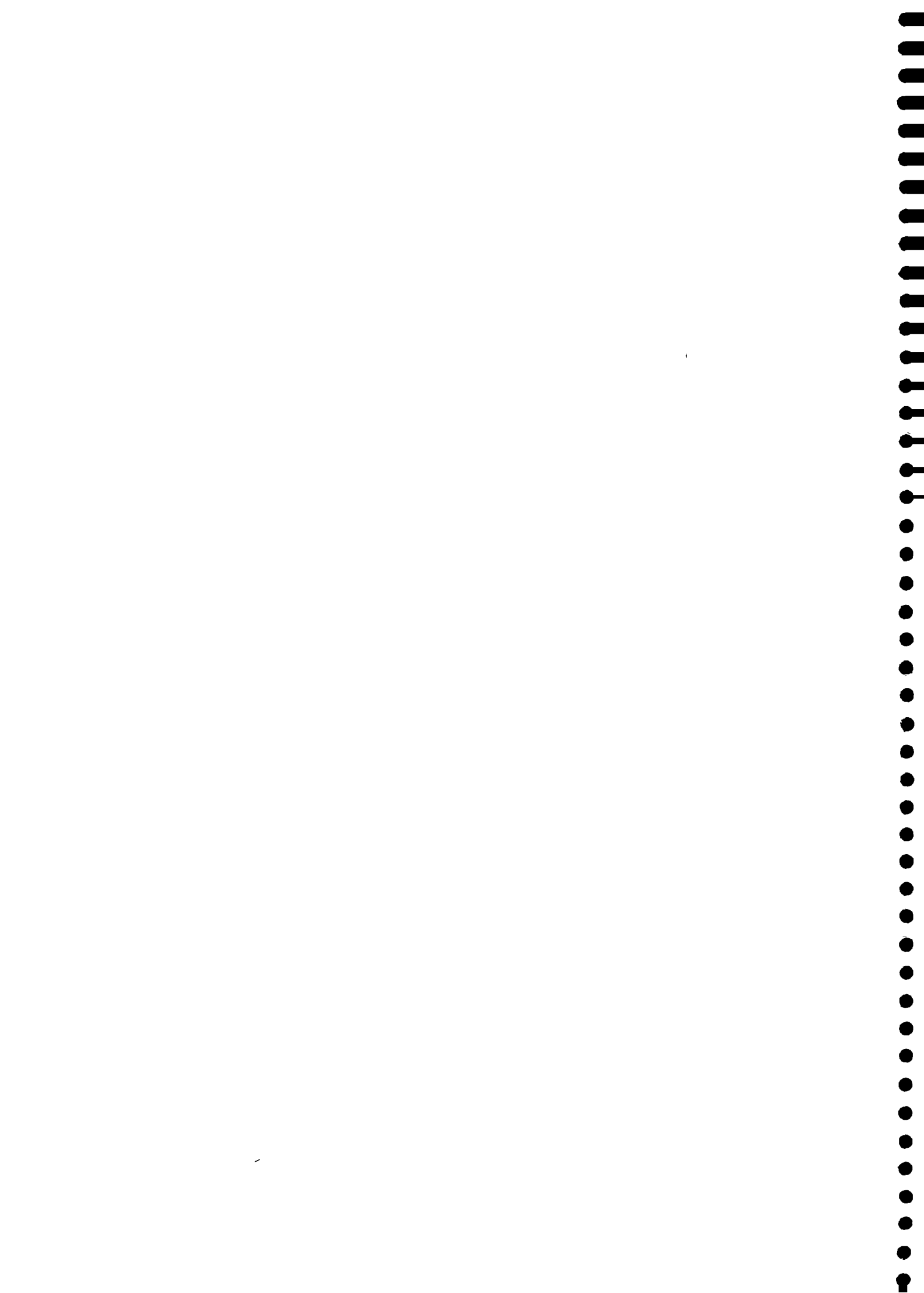
Similarly, being completely dependent on daily wages earned, it may not be possible for a wage labourer to contribute labour by foregoing one day's work. This was the main factor, that resulted in incomplete work concerning lane paving in the Janatha Colony of Jeergal.

5.8.3 Absence of Male Members in a Household

In addition, the kind of work involved in lane paving or construction is such that men can participate with much more ease than women. As such, labour contribution may be difficult for those households where there are no men available. In fact, in Mirjuri voni of Jaliber, lane paving was not done in front of one particular house as there were no men.

5.8.4 Scarcity of Water

The acute scarcity of water for domestic purposes in Jeergal is also one of the factors that seems to have affected the extent of community involvement in the study. In a way, it sounds quite odd to talk about sanitation when there is scarcity of water. Discussing this point, an elderly women from



Kalmeswar voni questioned the rationale behind providing assistance for constructing latrines when there is no good water available even for drinking and cooking purposes.

5.8.5 Other Factors

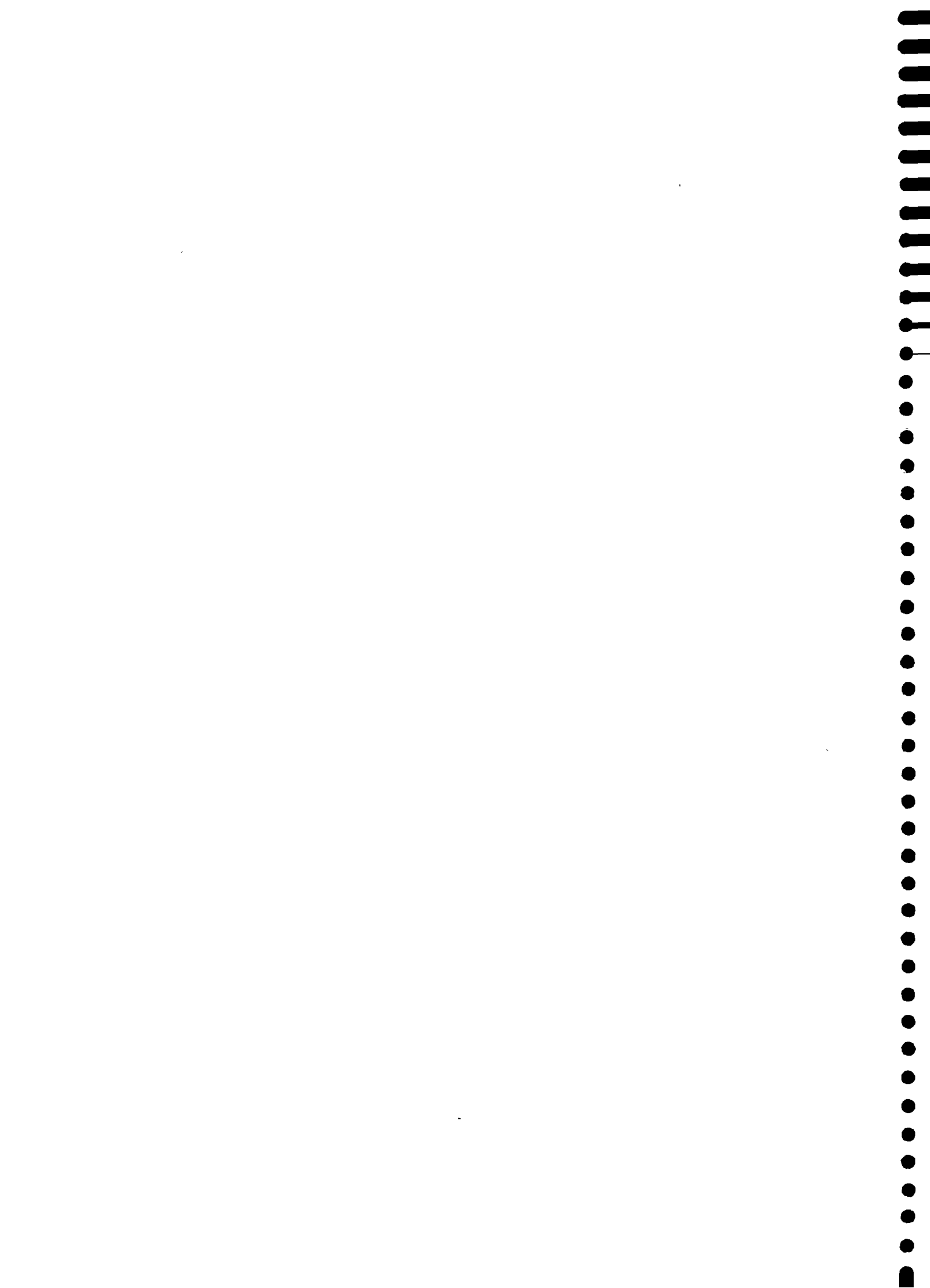
The notion of providing open drains also seems to have affected the pace of work in both Jeergal and Jaliber. One drain, which collects household wastewater in the Harijan Keri of Jeergal, is located such that it almost touches some of the houses. While the construction work was going on, objections were raised by some of the owners of these houses on the grounds of seepage. As a result, the work took 20 days more than originally anticipated.

For similar reasons, i.e. seepage, the pace of construction of another partially covered drain in Jaliber also got affected. Here, yet another factor, viz. landownership rights, in addition to the issue of seepage was involved. Given the seepage problem, the direction of the drain was planned such that the flow would ultimately enter the river Ghataprabha through an open ditch along the path leading to the river. The location of the proposed open ditch was such that it would facilitate collection of wastewater from a cistern opposite the Samaj Mandir as well. The landowner of adjacent agricultural fields raised objections against the open ditch and even the platform construction for the cistern on the grounds of landownership rights and of course seepage. This, however, was sorted out by examining the ownership rights by the Revenue Department at block level.

Yet another factor that appears to have contributed to the delay in the initiation of work in Jaliber was the wrong information regarding the works proposed under the pilot study by the Anganwadi helper. This resulted in a misunderstanding such that only after the construction of a platform in front of the temple in the Harijan Keri people wanted to be involved.

Whatever the problems confronted in the initial days of the study, the pace of work gained momentum both in Jaliber and Jeergal subsequently. The PFOs of these villages managed to overcome most of the constraints with one or two exceptions and facilitated the involvement of the communities in the works. The initiation and completion of the Anganwadi buildings are indicators of the same.

The situation in Varchagal, contrarily, was totally different. Most of the works proposed under the pilot study with the exception of latrine construction were initiated before the original study period was over. There was no serious problem as such for undertaking any work or for the contribution of labour except that one particular household in the Janatha



Colony was so apathetic that it did not entertain the idea of digging a soakpit even.

The reasons for this may be several. The very absence of factions, the presence of traditional leadership with hold over the village affairs, the systematic planning and execution of works by the village committee and the presence of an active PVW and well-educated voluntary village workers seem to have contributed to the timely initiation and completion of works under the study in Varchagal.

As mentioned already, the pilot work was initiated and organised in Varchagal with priority ranking of needs as its basis. Reportedly, in order to initiate any work , the village committee used to meet on Sunday or Monday evening. During these weekly meetings the committee used to discuss the work to be undertaken and the progress of ongoing work and to prepare the list of people who should contribute labour. Most of the actual construction work was done on Tuesday morning from 8 to 12 am. However, with regard to the Anganwadi building, labour contribution was organized for a few hours even on other weekdays. The issue of labour contribution did not pose any problem as such. The villagers out of sheer respect for the traditional leader "patel", who is also the chairman of village committee, left any sort of work even half-way through if he called for them to do the community work. On the days of actual implementation, the pilot village worker with the help of voluntary village workers used to prepare the list of persons to contribute labour. Any person who failed to turn up for work on Tuesday morning was generally rebuked publicly by the village workers or other villagers.

Further, loosing one day's wages or prior agricultural commitments or works did not pose any problem to the execution of pilot study work as Tuesday was the weekly market day /rest day and as the labour contribution was elicited on a rotation basis involving one person from each household.

5.9 Maintenance of the Installations

Except for one water tap and two drains in Jaliber, one drain and the Anganwadi building in Jeergal and two plastic pipes connected to household soakpits in Varchagal, all other installations were found in good condition without any problem during the third visit.

While the tap broke down in the course of drawing water, the reasons for blocking of the drains in Jaliber are partly rooted in the way in which they were planned and constructed. The partially covered drain was planned such that it had only two channels over a length of more than 300 meters making cleaning operations difficult. Further, the bottom portion of the drain running adjacent to agricultural fields was not lined making the removal of



silt difficult. Besides, the silt along with the wastewater reportedly blocked the concrete pipe through which the wastewater is ultimately let into the river Ghataprabha. The Uttur road drain is constructed with uneven slope. As a result, flow is obstructed resulting in the formation of puddles.

The causes of blocking of the drain near the Harijan Keri entrance in Jeergal and of the damage to the plastic pipe connections to soakpits in Varchagal are tractors. Since the lane in which the drain is located is not paved, soil is often pushed into the drain due to passing of tractors. This can be sorted out by undertaking lane paving. Similarly, in Varchagal, the plastic pipes may be replaced by steel or iron pipes so that no damage occurs due to movements of vehicles. Roof leakage was observed in the Anganwadi building in Jeergal. This is mainly because of the uneven surfacing of the roof of the building. Steps, however, have been initiated to rectify the same.

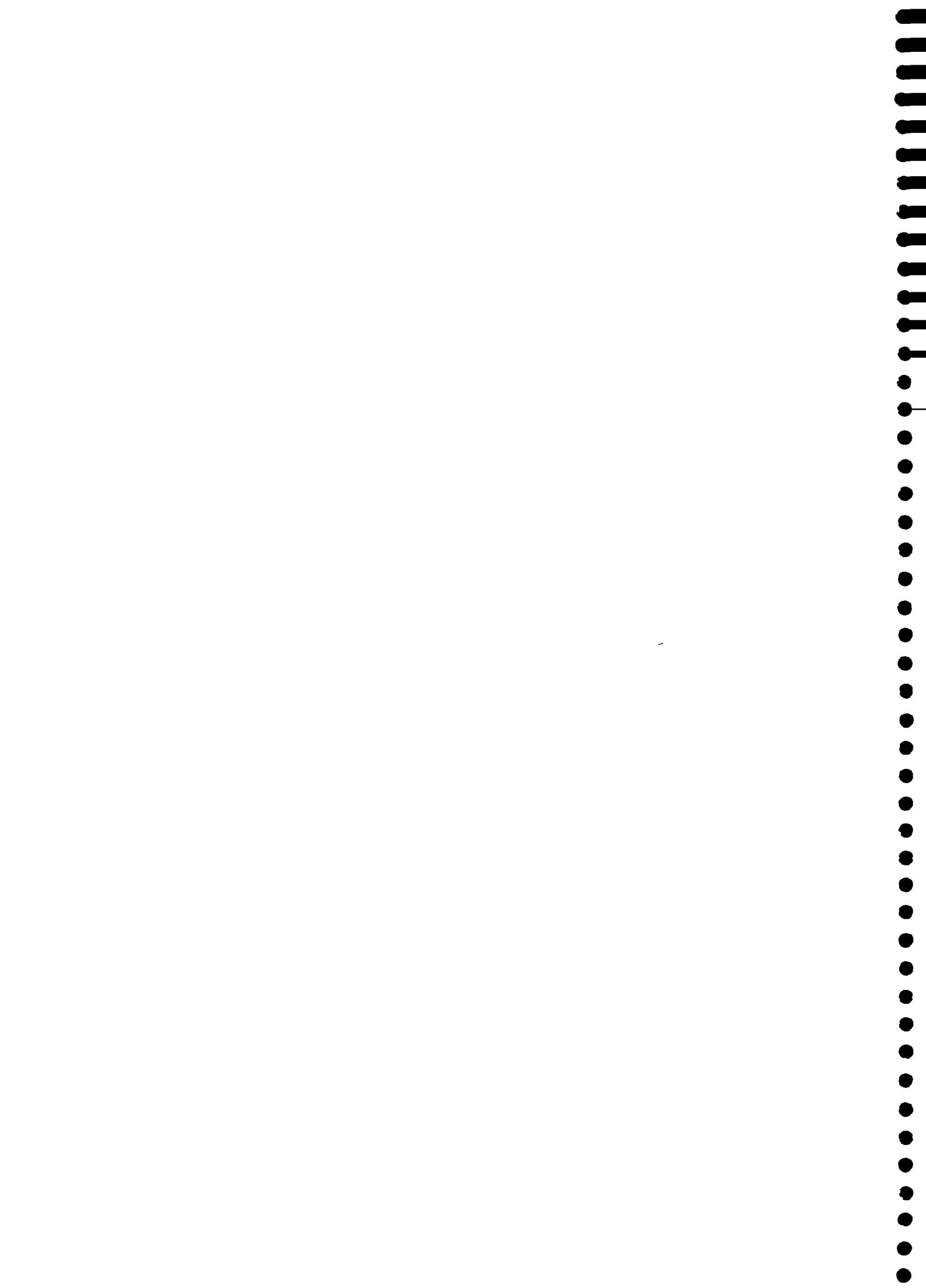
Thus, while the installations are mostly in good condition a year after their completion, requisite cleanliness is not maintained always, impairing the goal of sanitation. It may be noted here that environmental sanitation is linked to water supply so as to provide relief to people from diseases like malaria, typhoid and worm infestation and thus to improve the general health status. The Anganwadi buildings in all three villages are the general exceptions where they are cleaned by the Anganwadi helper daily.

In Jaliber, slush and stagnant water was found near all handpumps and cisterns except for the Uttur road cistern. The position of the groundlevel platform around the cistern coupled with the practice of washing clothes and vessels on the platform corners and under the taps contributes to the formation of puddles which become breeding grounds for mosquitoes. Nowhere, the washing slabs are used by the people, since they find it easier to wash clothes and vessels in running water under the taps.

A more or less similar situation is observed regarding the paved lanes and drains. Two lanes are paved in V-shape sloping towards their centres, but the lanes are not properly sloped longitudinally such that the water flows away. As a result, slush accumulates in the centres. Further, silt settles on the sides of the lanes as there are no gaps between the walls of the houses and the lanes.

However, out of the four drains, the two near the village entrance handpump and cistern looked cleaned at the time of the last visit. Reportedly, the Gram Panchayat worker visits the village once in a week and cleans them. The silt, however, is deposited on the sides of drains.

In Jeergal, where only lane paving and construction of drains was undertaken, the situation is much better. In spite of the heavy rains during the inspection



visit, the paved lanes and the drains were all quite clean without any slush or silt. The silt removed from the drains is regularly deposited in a compost pit outside the village. Further, silt accumulating on the sides of the lanes from roofs and mud walls is cleared by the women on a regular basis.

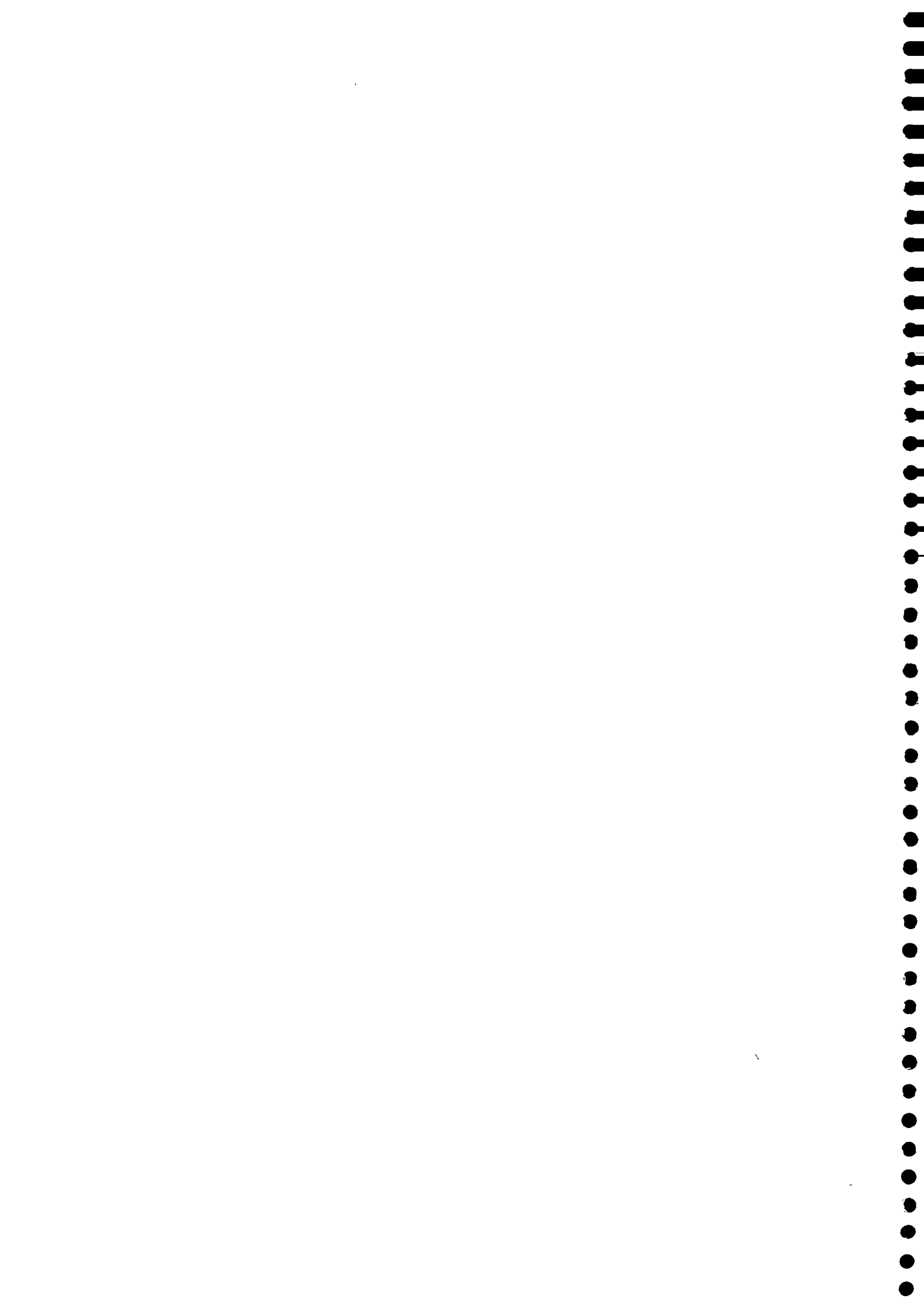
In Varchagal, slush formation and silt on the edges of the paved lanes was observed. This was especially so in the narrow lanes of the main village. However, in the Janatha Colony, both paved lanes are quite clean without any slush, since they are wide and sloping and there is a gap between the lanes and the walls of the houses.

Though the platforms around the waterpoints are all groundlevel ones, no slush was found anywhere. In fact, to avoid slush formation, sand has been spread around the waterpoints in Varchagal. The cattle troughs and cisterns are cleaned by the pump operator twice per month and year, respectively.

The drains are all cleaned every monday by the panchayat worker and the silt is deposited in a compost pit. The saplings planted in the Janatha Colony are taken care of by the individual households, while those planted near waterpoints are nurtured by the water users. The pipes fixed for the disposal of household wastewater into soakpits are in good condition (except for two of them).

Thus, it becomes evident from the foregoing that, though the sanitary installations are largely good condition, cleanliness is not always maintained by the villagers. However, there are no problems in this regard wherever responsibility is clearly identified, e.g. respective to the Anganwadi buildings and drains. While the situation is quite worse in Jaliber, it is better in Varchagal. Jeergal ranks best in this regard. On deeper probing into the issue, it appears that the reasons are several and rooted in the attitudes of the villagers, the way the committees function, the status of the project village worker and the general environment prevailing in the villages.

Jaliber villagers generally consider maintenance and cleanliness of sanitation facilities as the responsibility of the Gram Panchayat and project staff. This is especially so where facilities are used by the entire village population. Cleanliness of lanes and utilities used by the public cannot be maintained by an individual household even if it happens to be in front of their house, reiterated one woman. In fact - as another woman pointed out -, the lanes were paved in V-shape so as to avoid the cleaning of road used by public. Reacting in a more or less similar vein, a group of men stated that the project could as well provide maintenance expenses. This view was shared even by the chairman of the newly constituted committee. Some others attributed the lack of cleanliness to the divergence of views and the prevalence of factions in the village.



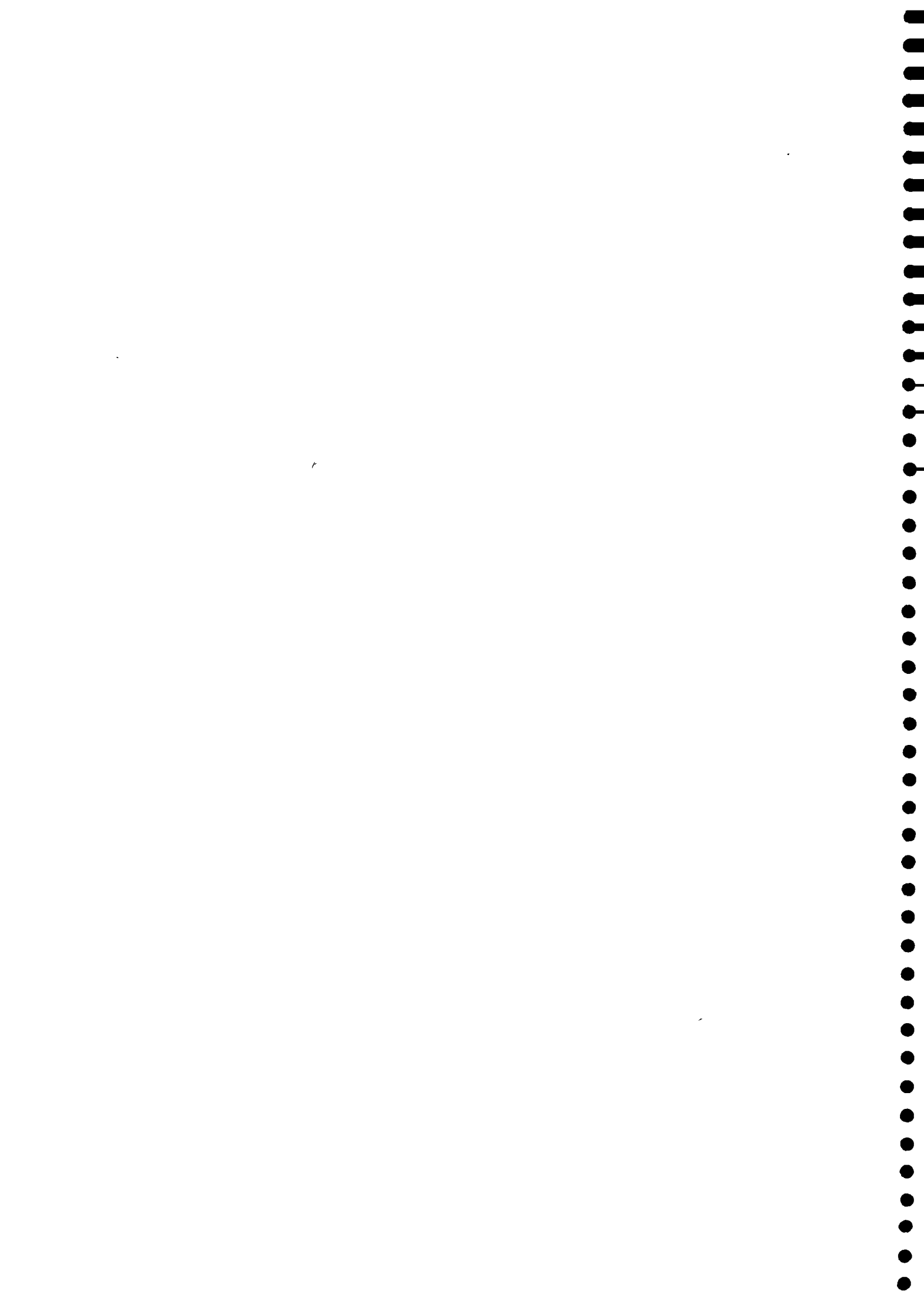
The reactions of the villagers of Jeergal and Varchagal, however, were quite different. The women of Jeergal said that they sweep the lane in front of their house every day and deposit the silt and other waste material in compost pits. The cleaning of drains is supervised by whichever villager is on the spot. It is to avoid the formation of stagnant water and slush that the women of Jeergal are seeking to have the installation of waterpoints under the main project on the circular road around the village rather than in the village itself.

In Varchagal, the cleaning of drains is supervised by the youth club member Magundappa in the main village. Chand Bi, a muslim woman - as reported by women of the Janatha Colony - used to clean the cattle trough and platform at the waterpoint near the Janatha Colony till recently. While Magundappa is a voluntary worker, Chand-bi used to get a share from the salary of pilot village worker Annapurna for doing so. Chand-Bi, however, has stopped cleaning the cattle trough, etc. as Annapurna is no longer pilot village worker. Slush formation on the paved lanes is generally attributed by the villagers of Varchagal to the erosion of traditional practices, like women sweeping in front of their houses in the morning and evening.

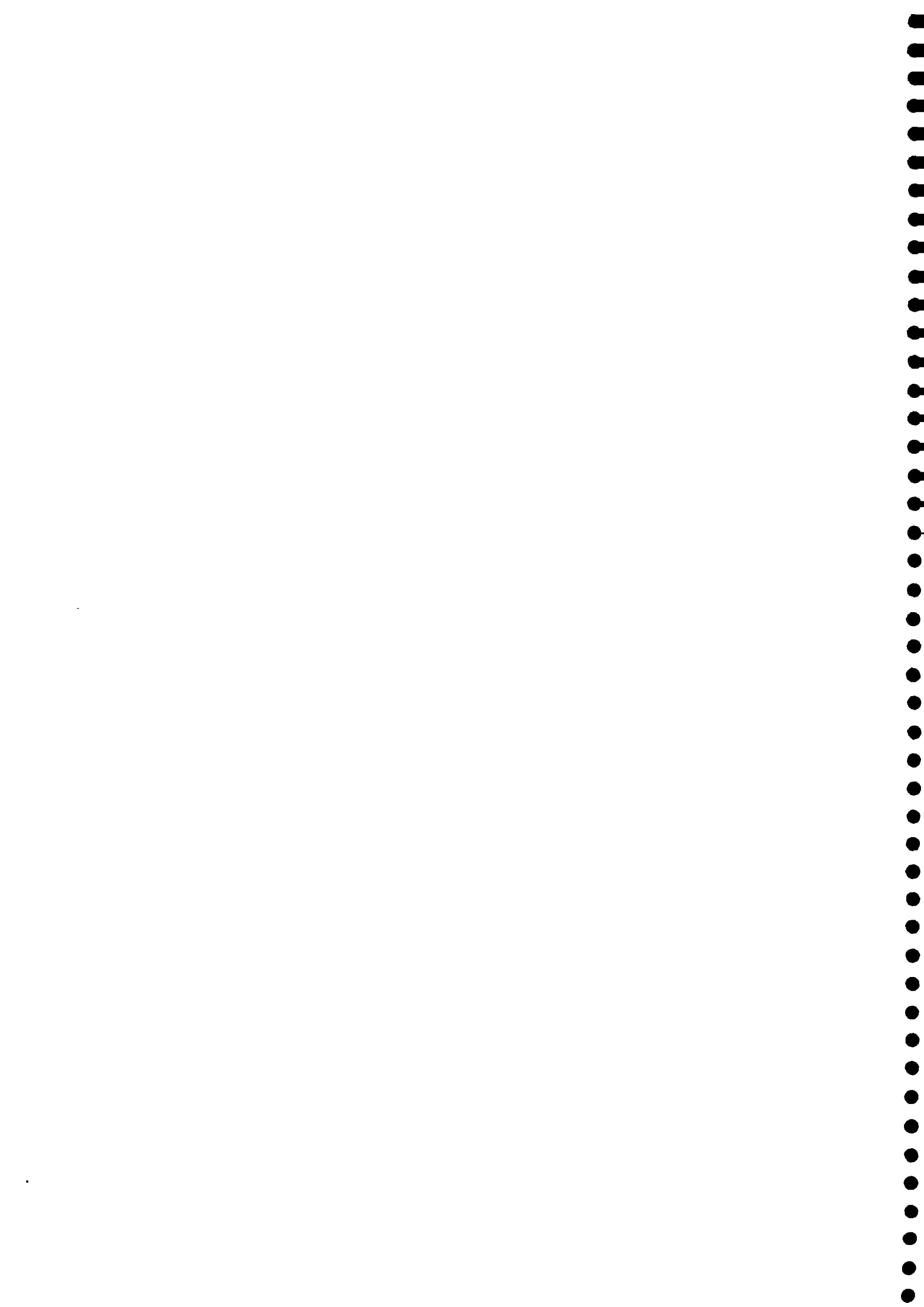
While apathetic attitudes, lack of understanding about linkages between hygiene, cleanliness and health and erosion of traditional practices have resulted in unhygienic conditions, the root causes for the problems of maintaining cleanliness also include another aspect. These are commonly observed in all three villages, viz. the way in which village committees and pilot village workers functioned during the gap between the pilot study and the main project. During this period, the committees in the villages became defunct, because of lack of clarity about their role in maintaining cleanliness and no regular activities so as to meet and discuss periodically. Only 15 days prior to the third visit the committees in all three villages were re-constituted. While the village workers of Jeergal and Varchagal were inactive, the worker of Jaliber lacked proper clarity about both his role and that of the committee. Occasional statements of the worker regarding the usage and cleanliness of the installed facilities reportedly met with offending remarks from women often questioning his very legitimacy of playing the role of a pilot village worker. This may be because the village worker was recruited by and accountable to the PFO.

5.10 Impact of the Pilot Study on Health

Notwithstanding the problems in cleanliness, the construction of sanitation facilities under the pilot study appears to have resulted in an improvement in the general health status of the villagers especially women and children. Villagers state that, after the study, the incidence of diseases like malaria, typhoid and worm infestation generally decreased. While waterpoint improvement



and construction of drains and soakpits resulted in a decrease of the incidence of malaria, the construction of latrines attributed to relief from problems of worm infestation. Among the villages, the situation is somewhat better in Varchagal, where no single case of malaria was reported in the last one year, compared to the other two villages. In Jeergal, the impact on health can only become noticeable after water supply is provided under the main project and in Jaliber, when the villagers begin to maintain the sanitation facilities properly.



SECTION 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The pilot study was initiated in three villages in Bijapur District in order to test and refine the methodology for eliciting people's participation for the purposes of the main project concerning water supply and environmental sanitation in some 200 villages of Dharwad and Bijapur Districts. Though the main project is to focus on both water supply and environmental sanitation, only the latter was taken up under the pilot study. The sanitation works were undertaken both on community and household level. Since the exercise was an experiment, it was considered essential to assess its performance. It is with this intention that the Project Support Unit appointed an external consultant to carry out an assessment.

The assessment was conducted by visiting the pilot villages three times. The observations made during these visits at different stages of the pilot study are summarized hereunder.

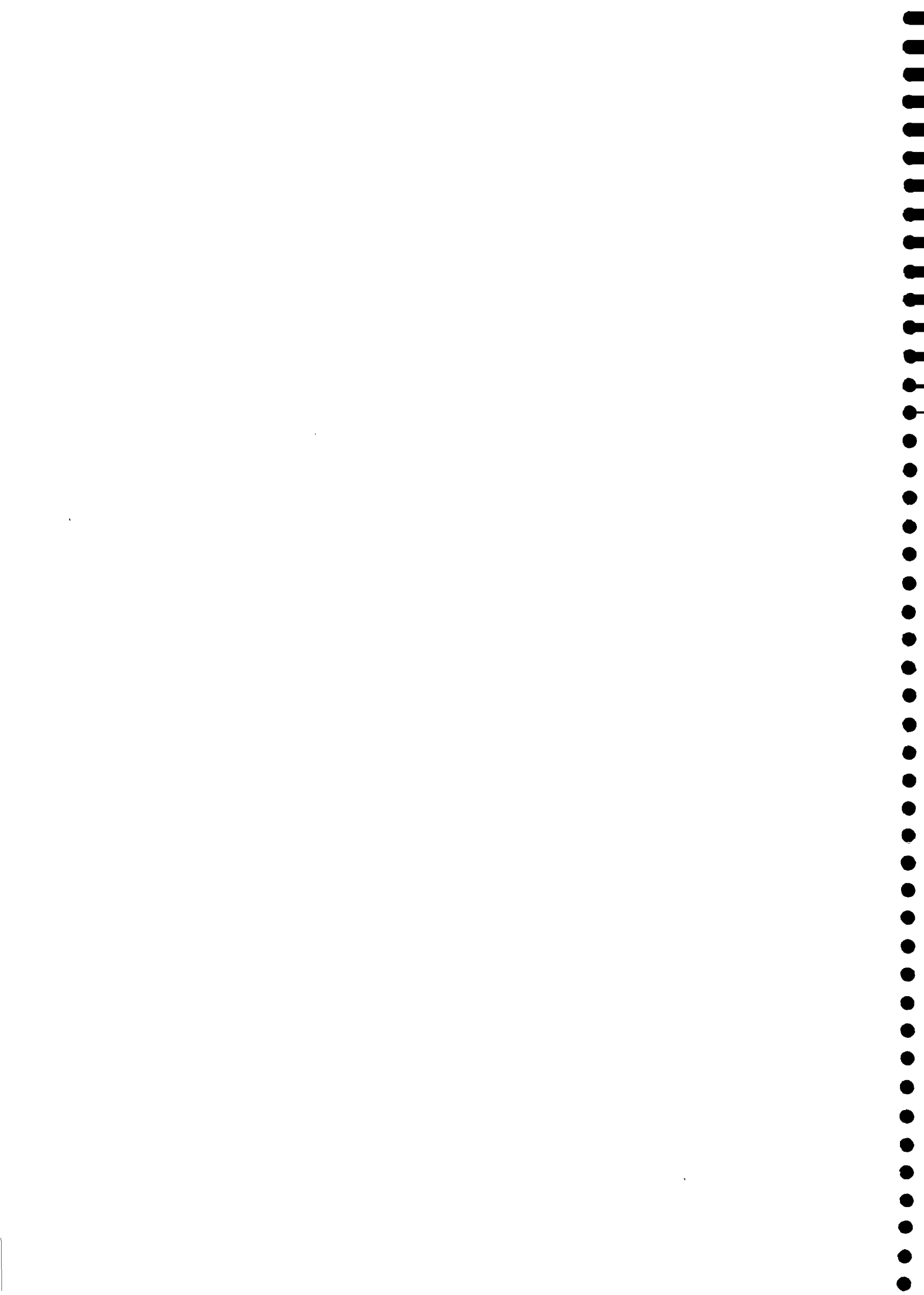
In terms of their social structure, all three pilot villages are heterogenous and comprise people from different castes and communities. The lanes in the centres of the villages are narrow, while the peripheral ones are comparatively broad. Except in the Harijan Keri of Jaliber and the Janatha Colonies of Jeergal and Varchagal, there is no space between the lanes and the houses. The houses in the villages are congested with poor ventilation and cattle and people live under the same roof.

As an initial step to plan and implement the pilot study, village committees were established in each village. The idea of establishing one committee at village level, however, did not evoke a uniform response from all sections of villagers. This was especially so in Jaliber, where two separate committees were established, one for the Harijan Keri and one for the main village.

The majority of the committee members came from forward caste groups, were landowners and involved in cultivation. Women were represented in the committees of each village.

Physical implementation of works was initiated in all three villages as per priority ranking. The ranking of needs by the villagers was such that the waterpoint improvement, construction of drains and lane paving were given highest priority. Besides, construction of soakpits and of latrines as well as sapling planting were also undertaken as part of the pilot study.

Across the villages, as far as the performance of the pilot study - in terms



of time of initiation, time taken for completion and extent of community involvement - is concerned, Varchagal fared better than the other two villages. In Jaliber and Jeergal, the pilot study work gained momentum only around April 1993 by which time the study should actually have been completed already.

The reasons for the delays in the initiation and completion of works were several and range from factional rivalry, nature of occupational pattern, absence of male members in the household and scarcity of water to problems of seepage and disputes over landownership. Most of these problems were resolved by the pilot field officers and works gained momentum in March/April 1993. The very initiation and completion of Anganwadi buildings is an indicator of the same.

The reasons for the timely initiation and completion of works in Varchagal are several. Basically, the village has no problems of group/factional rivalry and some sort of unity is prevailing among the various social groups. Further, the village committee of Varchagal took an active part in the work and planned construction well. It managed to strike a balance between the general work pattern of the villagers and pilot work by using the weekly rest day on a rotation basis.

By and large, all sanitary installations are in good condition without any damages or breakdowns. However, requisite cleanliness is not being maintained properly. Across the villages, the situation is somewhat better in Jeergal followed by Varchagal and Jaliber. Among the various sanitation works, cleanliness is observed wherever the responsibility for maintaining them is clearly identified - for e.g. Anganwadi buildings and drains. Stagnant water, slush and silt were found near waterpoints and on paved lanes in the villages Jaliber and Varchagal.

The reasons for this are several and range from apathetic attitudes, lack of proper understanding about linkages between health, hygiene and sanitation, erosion of traditional practices, defunct village committees after the completion of study and lack of sustainable activities for the village committees as well as lack of clarity on the part of members about the committee's roles in maintenance and on the part of village workers about theirs.

Whatever may be the problems of cleanliness, the construction of sanitation works under the pilot study appears to have resulted in an improvement in the general health status of the villagers especially women and children. Across the villages, the situation is somewhat better in Varchagal where no single case of malaria was reported during the last one year. In Jeergal, impact on health can become perceptible only after the provision of water supply and in



Jaliber when the villagers begin to keep their surroundings clean.

Notwithstanding the variation among the pilot villages in the extent of community involvement, the experience has clearly dispelled the notion that village communities lack the requisite ability to assume responsibilities and participate in development projects. However, the point is that eliciting and ensuring participation of communities in development projects is a long-drawn process and necessitates systematic and concerted efforts on the part of the promoters. Depending upon the prevailing conditions, some may respond quickly and others a little slower. Further, the lessons drawn from the experiment become most useful and can be generalised only when similar mechanisms are also adopted in the main project.

6.2 Recommendations

While there are no serious problems as such with the study methodology, the following points for involving people effectively in implementation and maintenance of sanitary installations under the main project may be considered:

1. The organisational pattern may be such that it facilitates team work in problem villages. Faction-ridden villages or villages in which the community is apathetic may generally require a higher degree of persuasion from the field officers. The project may gain in terms of time if a team rather than an individual is involved in such villages.
2. It may be essential to collect information on the occupational pattern of the villagers, cropping pattern, seasonal variations, work hours, free time, lanes in which vehicular movement is high, skills available and landownership rights concerning waterpoints and drain routes while conducting mapping exercises. The information on these aspects may result in better planning and management.
3. While building rapport with officials like Block Development Officers, Child Development Project Officers, subdivisional engineers, etc. it may be better to initiate contacts at the district level involving the heads of departments. In this context it is relevant to quote a field observation viz. that recently a team of engineers from the Bagalkot subdivision visited village Jeergal to collect information about the functioning of the existing water supply system, locations for public standposts and an overhead tank so as to provide water to the village. Contacts at the departmental level may to some extent avert such duplication of efforts. Further, it may also help in overcoming problems concerning the involvement of Anganwadi workers and helpers, traditional birth attendants and village health guides.



Given the constitution of Gram Panchayats and the developmental role assigned to them by the recent Karnataka Panchayat Raj Act 1993, the project may need to build rapport with the members of Gram Panchayats also.

4. The role of the village committees in the project may be widened by involving them in the recruitment of village workers. The latter may be recruited by the committees in consultation with the project staff. The village workers may be made responsible both to the village committees and project staff. Further, orientation about roles in planning , implementation and maintenance may be provided to village workers and village committee members separately on a regular basis. These steps may not only provide an answer to the legitimacy question of village workers but may also enable the Project Support Unit to withdraw active support by its staff after a period of one to two years.
5. Awareness generation programmes may be conducted on a regular basis highlighting the linkages between water, environmental sanitation and health. While doing so, attention may be focused on women and children. One such programme may be organized immediately in village Jaliber. In addition, attempts may be made to identify and revive hygiene-linked traditional practices like sweeping in front of the houses daily.
6. In order to bring changes in behaviour aspects and traditional practices of defecation, wastewater disposal, water use and so on, it may be essential to extensively use streetplays, Yakshagana and songs. While doing so, the project may build contacts with NGOs and their networks.
7. While planning and implementing water supply and sanitation works, the project may draw resource persons from better performing villages to persuade the inhabitants of problem-prone villages.

