A Study on the Livelihoods Situation Of the Tribal Communities in Raigad District of Maharashtra State

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The usual disclaimers apply.

Section 1
Introduction and Conceptual Background

1.1 Economic Development and Livelihoods of the Marginalized

In spite of pursuing rapid economic development for more than five decades India since independence the objective of poverty eradications has not yet been achieved. The prevailing situation of hunger, poverty, and deprivation experienced by many sections of the people show that the development strategy pursued in the post-independence decades has been ineffective. The conceptual core of the development strategy adopted by the economic and political mainstream was based on a combination of the two fundamental principles—viz., macro-economic growth and trickle-down effect. The strategy for achieving macro-economic growth was through expansion of the urban-industrial system and also through chemical-intensive, 'modern' agriculture. It was also assumed that the benefits of macro-economic growth would reach the bottom-most sections of the society through the 'trickle-down' process. The two main routes envisaged for the trickle down processes are (a) 'chain reaction' of the economic enterprises/activities and, (b) the state-supported income-redistribution program through specific poverty alleviation and welfare schemes for the poor.

In the early seventies, various theoretical and practical limitations of this strategy were realized and recognized. Since then, a “direct-attack” on poverty has been waged through various anti-poverty programs. Though this is part of the state-supported income-redistribution program from the late seventies onwards this aspect of attacking poverty directly by better targeting the poor was highlighted. Hence from this period onwards specific anti-poverty programs and schemes are being designed and implemented. However, in spite of the massive expenditure on anti-poverty programs in India, millions of people continue to suffer from hunger, chronic malnutrition, and severe deprivation.

In the process of analyzing the various reasons for this failure, the members of the ReLi group opine that these multifaceted forms of deprivation have to be viewed in a more broader way – as a denial of the basic right to a secure, sustainable, and dignified livelihood. There are several reasons behind the failure of the mainstream's approach to anti-poverty programs. One of the fundamental and important reasons behind the failure of poverty eradication programs relates to the problems in the conceptual core of the mainstream approach. The major lacuna in this conceptual core, which is dominated by the 'economist' thinking, is the restricted meaning of the term ‘poverty’. Accordingly, poverty is equated with

“low income or lack of adequate income" and, it is assumed that, as a consequence of low income, people are not able to buy adequate quantity of goods and services. In other words, it means that the households having low income are not able to afford (to buy) the goods and services that are necessary for fulfillment of basic livelihood needs. This results into "low standard of living", which is considered as "poverty".

Thus, inadequate consumption of food (also other basic goods and services) is linked with poverty measurement. The provision or availability of employment, which helps to increase earnings or which helps to earn the cash income that enables to gain (buy) adequate food (and other good and services), is seen to be eradicating the poverty. Besides, the proponents of this approach often fail to adequately consider the other basic minimum livelihood needs like water, clothing, shelter and adequate health, and, education services.

Hence, based on these conceptualizations, in the mainstream approach, it is assumed that for poverty eradication, every person should be provided with some employment, i.e., one job/occupation, which would help the person to earn (mainly cash) income. With this income, the person could buy necessary goods and services and thus fulfill all livelihoods needs of the family. In fact, ‘having a job/business as a means of livelihood’ is a distinct feature of the urban-industrial society and more specifically a characteristic feature of the middle and upper classes. However, the mainstream approach accepts this feature as a universal feature and applies this to all poor rural households. However, in most of the urban areas and in all rural areas, the means for livelihoods adopted by poor households are different and complex in nature. In rural areas, for fulfilling the various livelihoods needs, these households rely on varied and multiple livelihood sources (such as land, forest, water and so on). Various livelihood needs (such as water, food, fodder, shelter and so on) are fulfilled through multiple livelihood activities (such as forest collection, fishing, wage labor, cultivation). For example, the food for a rural family may come from farm produce, its cash income for buying goods (clothes, oil etc.) may be earned through wage labor, and fuel wood and food-items like forest vegetables, fruits and berries may be obtained through forest collection activity. Thus, different livelihood needs of the majority of the rural households are fulfilled through various activities and using different resources. Therefore, viewing the livelihoods reality of rural poor in terms of the conventional, urban-industrial, middle class framework of ‘employment-cash income-purchase of goods and services-fulfillment of needs’, is completely incorrect. In this context, there is an urgent need to evolve an alternative development approach with different conceptual core. This conceptual core will have to transcend the limitations imposed by the conventional view of livelihoods (in terms of ‘employment-income-nexus’). It will also have to become comprehensive and be able to capture the livelihoods reality of the rural poor.

This idea of adopting the 'livelihoods perspective' in the process of poverty eradications is all the more important in the present context because the livelihood crisis of the marginalized sections of the society has become more acute in the recent years due to the acute deterioration the natural resources in rural areas. Secondly, the support that these sections got from the State (in the form of either direct subsidies or subsidized social services) has been severely curtailed following the policies of economic liberalization.

For eradicating the poverty of the rural marginalized households the first step would be fulfillment of all minimum basic needs on a regular basis. However, only this much is not enough, as these households in the rural areas continuously face various economic, political, social, natural, and familial difficulties and threats. These difficulties and threats have adverse effects on their livelihoods, which directly affect fulfillment of their needs and further result into making their livelihoods vulnerable. Threats to the livelihoods include sudden shocks (e.g., floods, draughts, earthquake, storm or sudden change etc.) as well as long-term stresses (for e.g. chronic illness, addiction, debt, seasonal shortages, food deprivation etc.). Shocks are sudden, unpredictable and have dramatic impacts, while stresses are pressures, which are typically continuous and cumulative, predictable, and distressing.

Therefore, the main objective should be to ensure security of livelihoods against these threats. This would mean creating a situation in which the deprived households will be able to successfully deal with these threats and fulfill livelihood needs on a continuous basis. Here, the term ‘security’ means “freedom from the negative impact of the shocks, stresses, and threats to the livelihood”.

While considering livelihood security, taking cognizance of environmental sustainability becomes necessary, as majority of rural households heavily rely on their surrounding natural resources for their livelihoods. Thus, livelihood security of rural households is closely linked with the environmental sustainability. It is seen in the most of the literature that 'security' is often subsumed in the concept of sustainability and also expressed as ‘social sustainability,’ implying sustainability against shocks and stresses. However, this study differentiates between security in the short term and sustainability in the long-term as two separate conceptual categories and emphasizes the fact that for the poor the former is more important than the latter. As a result, the term ‘sustainable livelihoods’ is often used to indicate environmentally sustainable and ‘secured’ livelihoods’. However, in this study security of livelihoods is emphasized.

1.2 Conceptual Framework of Sustainable Livelihoods

One of the widely used and often quoted definition of the term ‘sustainable livelihoods’ (SL) was put forth by Robert Chambers and Gordon Conway. The verbatim definition is as follows: "A livelihood comprises the capabilities, assets (stores, resources, claims and access), and activities required for means of living. A livelihood is 'sustainable' when it can cope with, and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities to the next generation: and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term" (Chamber, R; Conway, G 1992).

Since the objective of this study was to understand the micro-level context of the livelihoods of the tribal communities and also since the study envisaged an active participation of young members of tribal households themselves, to facilitate their active and meaningful participation, it was necessary that the conceptual framework is adequately simplified and research tools to be designed based on this simplified framework should also be simple. It was envisaged that such a simple framework would be the base on which the entire study— from selecting the data collection points to analyzing and interpreting the data— would be based. To serve this purpose the framework put forth by Robert Chambers was taken as the starting point. The researchers tried to see whether these concepts were applicable or could be related to the local livelihood contexts and concrete realities of the tribal households in the area of the study. Hence, in the process designing the research tools as well as the analytical framework for this study an attempt was made to contextualize to the local reality, the various concepts in the SL framework put forth by Chambers and Conway. The researchers selected some of the key concepts that are to be considered in the simplified framework. These concepts were considered as essential in capturing the diverse and complex aspects of the livelihoods that shaped the reality of the tribal people.

The simplified conceptual framework developed for the study comprises three key basic concepts. They are (a) livelihood resources and capabilities, (b) livelihood activities, and (c) outputs obtained from performing activities for fulfilling the livelihoods needs. These three concepts collectively form a comprehensive whole that captures the various aspects of livelihood reality of rural people. They are also observed to be intrinsically interlinked and interdependent on each other. This framework is show diagrammatically below:

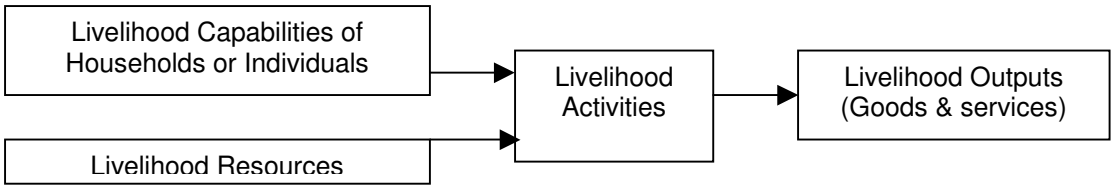

Figure 1: Simplified Conceptual Framework of a Livelihood

The category of resources consists of different sub-categories such as 'assets', and 'entitlements'. The examples of assets are property in the form of a house or land, livestock jewelry, trees, cash savings etc. Resources also consist of drawing from a pool, especially from the pool of common property resources, such as a river, lake, and wood lots. Assets are also in the form of stores and stocks which means 'the supply of something kept ready for use when needed or the collection of things to be used whenever needed'. Stores/stocks include food stocks and stock of fuel wood. The entitlement is 'a privilege or permission that could be in the form of legal and other rights (e.g., traditional) for the usage of surrounding resources like forest and water. Access is equally important part of entitlement and is defined as 'an opportunity to use resources/stores/assets'. The assets and stores are in tangible form, whereas entitlements and access are in intangible form.

The livelihoods capabilities include mental, intellectual, social (e.g., traditional knowledge, technology, information, skills and expertise), educational and political (e.g., information) capabilities the household members possess, which are essential to perform livelihood activities. People use means (resources) and capabilities to construct/contrive a living. This means that the available and accessible resources and the capabilities together make it possible to perform various livelihood activities, which further result into creating or obtaining (gaining) outputs. The various livelihood activities that tribal people conduct typically includes agricultural cultivation wage labor (farm and non-farm labor), forest collection/hunting, fishing, animal husbandry, liquor brewing and selling, job/service, and businesses. The outputs of these activities are typically in the form of food grains, food items (fish, meat, milk, vegetables, fruits, meals etc.), fuel wood, wood for building house and cash earned by performing wage labor or selling various goods. The outputs that are in the form of food grains and food items (often) directly fulfill the food need of the household. While the need for other non-food items like clothing, soap, footwear, medicine, and edible oil get fulfilled by using cash income. Thus, if the outputs are sufficient enough then they lead to fulfillment of household needs. On the other hand, insufficient outputs result into non-fulfillment of needs.

In this way, the above three concepts are observed to be playing an important part in fulfillment of livelihood needs. The livelihood resources and livelihood capabilities could be

called as "the inputs" that contribute to the livelihood activity conducted by the people. The livelihood activity is "the process", which further result into "the outputs" that either lead to fulfillment or partial/non fulfillment of livelihood needs. These three aspects are entirely interdependent and interrelated. The changes in one of these aspects cause changes in the whole livelihood system.

1.3 The Resources and Livelihoods Group of Prayas

The Resources and livelihoods (ReLi) group of Prayas was formed in November 2000. The group was formed by senior members of the Prayas Energy Group to work on many of the challenging issues in the theme of sustainable livelihoods. While working on this theme, the challenge before the newly emerging group was to complement the work already being done by many other individuals and organizations in this area, and come up innovative solutions to pressing problems. In responding to this challenge the group adopted the strategy of working in close collaboration with practitioners in the field on the one hand, and with academicians, thinkers and policy makers on the other hand. The imperative to work in collaboration with GrOs stems from the fact that these actors truly represent the aspirations of the poor and also they hold 'livelihoods security of the poor' as their central concern. The primary role of the ReLi group, which has evolved over the years, in this collaborative work with GrOs is to facilitate the various process related to the generation, synthesis, application, and, dissemination of information and/or knowledge. This set of interventions in the various knowledge processes is referred to as 'knowledge facilitation', and this forms the second aspect of the ReLi's group's intervention strategy. Often the mainstream actors use information/knowledge to overwhelm, threaten, or de-legitimise the poor and disadvantaged. The ReLi group feels that the process of knowledge facilitation with GrOs is geared to counter this, by empowering the marginalized them with knowledge and information and apply this in their every-day lives to secure their livelihoods.

This intervention strategy have their origins in the core belief of the founders of Prayas, that if the disadvantaged sections are equipped with the necessary information and skills they can tackle their own problems and shape their own future. All the activities of the group—research, policy analysis, information dissemination, public interest advocacy, skill development and training—are geared to this objective, of equipping the marginalized sections for developing their own actions.

The members of the group work, both at the level of intervention in discourse and policy, as well as at the level of design and implementation of development programs and schemes. The work in the latter in mainly done in collaboration with grassroots organizations

(GrOs) already working in rural areas. Based on this broad areas of work the twin objectives of the group are: (i) to influence the development discourse and government policy to bring the issue of security of livelihoods of the marginalized section at the center of discourse and policy and, (ii) to evolve and implement programs and schemes for ensuring natural resources based sustainable livelihood options for the marginalized sections, in collaboration with GrOs.

1.4 The Preceding Study in Kokan and Genesis of this Study

In the year 1999 Dr. Subodh Wagle (founding member of ReLi, and Member Prayas Energy Group, along with Dr. Milind Bokil conducted a study titled “Field Study of Impacts of Urban-Industrial Development on **N**atural **R**esources and **L**ivelihoods of the **P**eople in Rural Konkan Region” (referred to as the NRLP study for short). This study was conducted with the participation of seven GrOs working in Raigad and Ratnagiri districts in Konkan. The study was based mainly on qualitative data obtained from interviews and discussions with the leaders, and workers of these GrOs as well as discussions with the members of the rural communities. The study tried to gain an understanding at a broader level about the relationship between the local ecosystem (natural resources) and the livelihoods of the local people. It sought to throw light on the nature and extent of impacts of urban-industrial intrusions on this relationship. The northern part of Konkan in the state of Maharashtra (especially Raigad district) has bore the onslaught of urban-industrial projects (especially in the infrastructure sector) throughout the decade of the1990s. This onslaught has impacted the local natural resources, and hence the people living on these resources. Hence this area was selected for the study.

The study revealed that the livelihoods-security of the most vulnerable sections has been severely threatened. The findings also pointed towards the increasing limitations and irrelevance of the conventional poverty eradication strategies that relied on the urban-industrial expansion or on the expansion of the "modern" agriculture. It was found that the threat to the livelihoods security of the marginalized sections is a result of the two simultaneous processes: (a) erosion of the availability or access to the local natural resources, and, (b) extremely low (or reduced) productivity of local natural resources due to their destruction, defilement, and neglect. The study in the right sense of the term could be called as providing starting point for this Livelihoods Profiling (LP) Study. The NRLP study was thought to be the first stage that could be followed by a more detailed quantitative study as the second stage. Bringing in the quantitative dimension could be viewed as facilitating the process of drawing more definitive conclusions and also help in deciding the nature, and magnitude of the trends that emerged from the NRLP study. It was thought that a more

focused view could be taken for understanding the impacts felt at the household or 'micro' level rather than only at the regional level, which was done in the NRLP study.

1.5 Introduction to the Study

The present study has been commissioned as well as conducted by the ReLi group in collaboration with two GrOs. The conceptualization and operationalization of this study in based on the above mentioned core theme, as well as work strategy of the ReLi group. The study attempts to gain an in-depth understanding of the conditions of the tribal communities by practically applying the various concepts of livelihoods. The study is based on data collected by members of the community, especially first-generation neo-literates. This insistence to involve the community and work in collaboration with the GrOs emanate from the work-strategy of the group to facilitate knowledge process and build capabilities at the grassroots.

It is proposed that the findings of this study would be used for influencing the development discourse, and advocating policies for scrutinizing livelihoods. The research and analysis tools developed and used by this study can be used by practitioners for conducting similar livelihood studies in different regions, situations, and with different communities. Such studies will help to gain a better understanding of the conditions of the rural poor. This understanding is imperative to influence the process of making the development interventions more effective, both at the level of design and also implementation. Hence, this study is located in the context of a larger effort of the group to promote livelihoods security for the rural poor, through interventions in the spheres of policy as well as practice.

The primary objective of the LP study is to gain a better understanding the micro-level situation of the livelihoods of the tribal communities. Livelihoods profiling implies collecting data about the households (HH) to describe the way they live, their material conditions, how they fulfill their basic needs (in this case more of economic and social) and what are their problems and vulnerabilities in doing this. The specific objectives of the study are:

1. To study the livelihood situation of the tribal people, which includes, (a) the present situation of livelihoods resources, livelihood activities, outputs obtained from these activities, and the status of satisfaction of needs, and, (b) the factors affecting the livelihood situation of the people.

2. To evolve the conceptual framework and to develop the participatory investigation tool that would be simple, suitable and adequately flexible to enable the GrOs to study the livelihoods situation in the local context.
3. To focus gender aspects of livelihoods to understand the specific needs and problems of women as different from men.

The LP study is viewed as the first stage in a long-term process of increasing the understanding of the external change agents about the livelihoods situation of marginalized. The process also includes doing this with the active participation of the marginalized communities with a view to increase their awareness about their own situation. The subsequent process would consist of using this increased understanding by the external agents, and awareness in the community to articulate the livelihood related demands of the community. These demands would be presented in the form of a Community Livelihood Manifesto (CLM) that would be developed by the communities and facilitated by the field workers of the GrOs. The CLM will raise demands regarding the needs of the community and the assistance required for various options to improve their livelihoods situation and address it to the local government. The manifesto would also define the role of the community, the GrO and the government in the process of securing and enhancing the livelihoods of the rural communities.

The significant aspects of this study are:

- Participation of community in data collection and direct involvement of GrO leaders in the research process (design and analysis).
- Awareness building in the community, about the livelihoods situation and about their rights. This awareness building contributed to the process of strengthening the struggle towards securing rights to natural resources.
- The empirical data that has been collected and analyzed validates the utility of the livelihoods framework, and shows the complexity, diversity, and gender disparity in the livelihoods situation of the rural poor, especially the tribal communities. This data and analysis shall be used to support the advocacy process on various issues to be under taken by the GrOs

1.6 Limitations of the Study

The study did not cover certain aspects of the livelihoods of the tribal households due to constraints of time and human resources. Especially the non-economic aspects of the livelihoods such as the aspirations, concerns, their world of experience, perceptions about a secure and sustainable livelihood, coping mechanisms in the times of stress and shocks

could not be included in this study. Qualitative research methods are appropriate to cover these aspects of life. This being so, the study loses out on certain aspects of their livelihoods.

The village level workers of the GrOs were supposed to play a major role in the sustenance of the research process by sustaining the motivation of the respondent households and the data recorders (members of the tribal communities who worked as investigators in the study), solving the difficulties of data recorders' and acting as a connecting link between the researchers and the respondents. However, as they could not contribute what was expected of them, the ReLi researchers were overburdened with the field-level responsibilities of motivating and monitoring the data recorders. This effectively reduced the time available with them, which could have been utilized for collecting the qualitative data.

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Section 2
Methodological Aspects of the Study

2.1 Selection of the Geographical Area of the Study

The geographical area chosen for the study was Raigad district in the Konkan region of Maharashtra Sate (see map in Appendix II). One of the reasons for this was that the senior members of the ReLi group had an extensive experience of working on resources and livelihoods issues in Konkan. In the course of this work, the group members had developed close bonds with many grassroots activists in the region. As a result, the group members possessed a sound understanding of the region and had built a rapport with the locally active GrOs. This resulted in a positive and enthusiastic response from the GrOs (in the Raigad district) to the suggestion of a collaborative study. Another reason for the choice of this district was that the fact that the natural resources and livelihoods situation in the district was becoming extremely precarious. The Urban-industrial interests from the hyper-saturated metro of Mumbai have been increasingly targeting the natural resources of Konkan. This conclusion had emerged from the NRLP study conducted prior to this study.

2.2 The Process of Developing the Research Tools

After evolving the conceptual framework, the next stage was operationalization of these concepts to evolve appropriate research tools. For operationalizing the concepts 'logical trees' method' was used. In this method, under each key concept, a logical tree was constructed with effort to cover all aspects of the concept by following a process of reduction. The livelihood activities conducted were the focal point for developing these logical trees. These logical trees were subsequently converted into question form and were discussed with the community level workers of the GrOs just before designing the tools. In these discussions, the emphasis was on examining the relevance of the three key concepts in relation to the livelihoods context of the target group and also on assessing the comfort level of data recorders to be selected from the communities in understanding and relating to these concepts in their daily lives. After obtaining the inputs and insights of the community level workers, the researchers gained clarity about the kind of tools that would be required to conduct this study.

The deliberations with the GrO leaders in the process of designing the study clearly brought forth the concern that if the results emerging from the study had to capture the

diversity, complexity, and seasonal changes in the livelihoods the process of data collection itself had to be participatory and longitudinal. To summarize, the following criteria were identified to assess the appropriateness of the methods:(a) people centered, (b) enabling data collection on a continuous rather than episodic basis, (c) representing the insider's view, (d) easy for GrOs and their field level workers to handle.

A literature review focusing on the participatory and interactive data collection methods was conducted. This review led the researchers to a survey method known as "Household Record Keeping" (HRK). An article, by Nongluk Suphanchaimat (1994) describes how "household record keeping" was used as a means of understanding farmers' decision making. Suphanchaimat claims that the agricultural economists have used this method in several Southeast Asian countries to follow changes in agricultural production and rural economies.

The researchers deliberately choose to use the survey method of HRK even though it would result in collection of quantitative data. The researchers were aware that methods such Participatory Rural Appraisal (PRA), and Focus Group Discussions (FGDs) were being used by many researchers to gather qualitative data and these methods are being extensively used in livelihood studies. However the researchers felt that the quantitative methods like survey can measure characteristics of livelihoods that can be quantified and such quantitative data is required to contribute to the Groups objective of using the results of this study to influence policy, and also aid in the design of alternative (livelihood security) scheme. Qualitative methods are necessary to comprehend the intangible aspects of livelihoods, e.g., the intangible concepts such as security, sustainability, satisfaction, or vulnerability. Further the researchers and GrO leaders also felt that using the HRK tool offered an opportunity to engage the members of the community in the study on a long-term and sustained basis. This they felt was important for the GrO in their process of awareness generation in the community on livelihood issues.

While designing the research tools, two factors were of utmost importance, firstly, the tools should be interactive and should enable active participation of the respondents in data collection, and (ii) secondly, their scope should be comprehensive enough to cover and capture the livelihood details at the household level.

The first step towards designing the research tools was breaking down the conceptual framework (discussed in sub-section 1.2) into simpler or less abstract concepts. Three key concepts emerged from this exercise: resources/capabilities, livelihood activities, and livelihood outputs/needs satisfaction. These concepts provided the base for listing down

twenty broad livelihoods activities, which are normally undertaken by the tribal communities in the area of the study. This information was also available from the NRLP study. Approximately 500 questions were constructed (relating to all the three key concepts of the livelihoods framework) that could be used draw information on these activities. These questions were classified into six categories, based on the frequency at which they need to be administered in order to gather longitudinal data. These categories are: (a) daily, (b) weekly, (c) monthly, (d) seasonally, (e) occasionally, and (f) more or less permanent. This time-interval based classification was done with the consideration that livelihood activities and availability of resources vary with time.

To make the research tools context-specific, help was sought from the GrO leaders and the organisations' community level workers. They provided information on local practices such as sharecropping and collective farming, and, locally significant issues. They provided the terminologies for various concepts/words in the local dialect. They also helped in the forming and restructuring the questions, and, also excluded questions, which were not very relevant to the field situation. Based on this classification of the questions (concept wise and frequency of administration wise) three questionnaires were constructed that were administered in three different surveys: (a) The Rapid Baseline Survey of Households, (b) The One-time Survey of Resources and Capabilities, and, (c) The Household Record Keeping (HRK) Survey

The questions on 'resources' and 'capabilities' were collected together to form the questionnaire for the “One-time Survey of Resources and Capabilities”, while those on 'activities' and 'outputs' were to be administered daily using the HRK survey questionnaire (hereafter referred to as the HRK tool). An attempt was made to structure the questions in the HRK tool in a simple format since it was planned that the investigators who would use this tool would be drawn from the tribal households themselves and their educational levels ranged from 5^{th} grade to 12^{th} grade schooling. Their ability to use the tool with ease was the main considerations. The ReLi group researchers also conducted interview of the data recorder involved in the study. A semi-structured questionnaire was used for this purpose. Information obtained from this exercise has been compiled and presented as part of this study report.

Thus, the process of collaborative tool designing ensured that the HRK tool was interactive, simple, easy to understand, and easy to use by the semi-literate data recorders. Apart from the HRK tool based data collection, the ReLi group researchers did data collection in the remaining two surveys. The Rapid Baseline Survey of the Households began in January 2003 and was completed in March 2003. The workshops for the selections

of data recorders were conducted during the same time. The pre-testing of the HRK tools was initiated in March 2003 and completed in May 2003. The One-time Survey of Resources and Capabilities were conducted from the end of May 2003 to the middle of June 2003. Data collected in the period June 2003 to January 2004 using the HRK tool was used for the analysis and interpretation in this study.

2.3 The Role of the Collaborating GrOs, their leaders, and the Communities

The GrOs are non-party political organizations that primarily work towards building political awareness in the community. Their strength lies in their mass base (through membership at household level) and this gives them a rooted-ness in their area of work and with the communities they work with. Hence, they truly represent the aspirations of the marginalized sections. The leaders of the GrOs also act as their spokespersons of the marginalized sections on many fora. These GrOs work with a 'rights-based' perspective and also have the capacity influence the Government at the policy level. Besides, the most important impetus for involvement of the GrOs is that their leaders hold security, stability, and sustainability of the livelihoods of the marginalized sections as their priority concern.

The collaboration among researchers, the GrOs, and the members of communities was seen to be beneficial for all. Inputs at the conceptual level, was an expressed need by the GrOs. These inputs, in many ways, would better equip them to deal with the fast changing resources and livelihoods situation in the district. An enhanced understanding of the situation would provide the inputs to articulate their public political positions on many issues and also provide a sharper edge to their action programmes. Secondly, the newly available information and understanding would facilitate the process of influencing the policies for the district and the region. The study would help the researchers to improve their understanding of the ground reality, the aspirations, and choices of the marginalized communities.

Two highly respected senior women activists and GrO leaders, Ms. Surekha Dalvi (belonging to the organization named *Shramik Kranti Sanghatana - SKS*) and Ms. Ulka Mahajan (belonging to the organization named *Sarvahara Jana Andolan - SJA*) from the Raigad district, were associated as grassroots resource persons in this study and their affiliated organizations as collaborating organizations. In addition to the above two GrOs, another partner in the study was *Nirmitee*, an NGO also based in the Raigad district. Thus, the households from the operational areas of three organizations, namely *SKS, SJA, and Nirmitee* participated in the study.

During the research process, the meetings with Ms Surekha Dalvi and Ms Ulka Mahajan were held regularly, at least once a month and even twice a month if required. These grassroots resource persons studied the various notes relating to the conceptual framework of the study and drafts of the survey questionnaires and gave their detailed feedback on the same. In addition they also participated in many of the training workshops conducted for the data recorders and meetings of the community level workers. They also intervened in the community level process during data collection to increase the motivation of the data recorders and respondent households. Finally these grassroots resource persons also gave detailed comments on the first draft of the study reports and their suggestions and comments have been incorporated in the final draft.

To summarize the substantial contribution of the GrO leaders, they

a. Participated in evolving and, more specifically, in contextualizing and operationalizing the framework of the study,
b. Participated in evolving the methodology and designing the investigation tools,
c. Facilitated the process of initiation of data collection by helping to build a dialogue between the community and the ReLi group researchers which involved:
    - Identification of the recorders
    - Introducing the researchers to the community members
    - Creating a conducive atmosphere for research in the hamlets
    - Motivating the recorders as well as the respondents and the community by conducting meetings/workshops in hamlet
d. Identified the type of data that should be analyzed as a priority from the advocacy point of view, and gave feedback on the draft report

It was envisaged as part of the entire study process that, by becoming active partners in the study and participating in the data collection process, the community would become aware of various aspects of their own lives and livelihoods. However soliciting their meaningful participation required considerable capability building efforts. This exercise of building the capabilities of the community for this task required evolving both: an empowering pedagogy and a participatory methodology. Efforts were made during the course of this study to address both these aspects.

The HRK tool that was used in the study was effective in ensuring a direct participation of the community in the data collection process. A few weeks after the commencement of the HRK survey, young men from several households expressed the wish that they would fill-up the questionnaire for their own households. Though they could not give time to work as data recorders, their initiative was appreciated and they were

encouraged to collect information daily on their own households. Although the community did not directly participate in the data analysis, the findings of the analysis (in which Prayas researchers and GrO leaders were involved) would be shared and discussed with the community. This process is under way. This would make them aware of the reality of their livelihoods and would give them confidence and strength to articulate their demands and struggle for their rights along with the GrOs. Thus the entire research process was seen to be empowering for the community.

2.4 Sample Selection and Data Collection Process

In this study, the data was collected from the households in tribal hamlets in the Raigad district. A purposive sample of the households that suited the objectives of the study was selected. Several factors directed the choice of the households: the rapport of the partner organisations with particular tribal hamlets, the availability of competent data recorders in the hamlet, and his/her rapport with the respondent household. Each of the collaborating organisations in this study works in certain tribal hamlets in a few talukas (sub-district) of the Raigad district. SJA is active in seven talukas and SKS in active in seven other talukas, and Nirmitee in one taluka. Though the study could have been initiated in all the talukas, the deciding factor was the availability of the data recorders. Identifying competent data recorders was the first task in the process of selecting the respondent households. The three organisations made a list prospective data recorders from their areas of operation. The ReLi group researchers conducted a workshop for selecting the candidates from the prospective list with each of the three organizations. In these workshops the nature of the study and the kind of work expected from the data recorders was shared and discussed. The basic reading and writing abilities of the participants was assessed with the help of a simple questionnaire. Initially 27 persons were selected as data recorders through this process. The choice of data recorders directly affected the process of selection of respondent households. Only those households could be selected for the study, in which the selected data recorders resided. Another important factor was the willingness of the households share their personal information with the recorder. Initially 128 households from 17 hamlets in 5 talukas (Mangaon, Roha, Tala, Sudhagad, and Pen) were selected for the study. As the study progressed, the number of data recorders as well as the sample households changed. Some households and data recorders dropped and new ones joined. The details regarding the selection of households whose data was processed and analysed in discussed in section four.

The Rapid Baseline Survey of Households

This survey was conducted in seventeen hamlets where data recorders had already been identified and selected, in the period January to March 2003. The objective of this survey was selection of the sample households for the HRK survey. During the survey, the ReLi researchers conducted at least one meeting in each hamlet. The field worker of the collaborating GrOs and the selected data recorder of that hamlet were present in these meetings. The groundwork done by the organisations in the tribal hamlets for last several years proved to be of immense help in getting the co-operation of the respondents. As the organisations have won the confidence of the local community, the researchers (despite being outsiders) required hardly any effort to start a dialogue with the tribal community members. The process of acceptance by the tribal community members was smooth and rapid. All the community members who were interested were welcome to the meetings. During the meetings, the ReLi researchers discussed following topics:

- Need and purpose for profiling the livelihoods situation.
- Expected role of the local people, i.e. active and conscious participation and a long-term commitment.
- Expected outputs and impacts of the study

The meetings helped in creating a congenial atmosphere in the community for initiating the data collection process. After the initial meetings, the researchers administered the questionnaire for the base-line survey. At the time of conducting the survey, members from certain households were not available because they had either migrated or were engaged in some livelihood activity during the researchers' short stay in the hamlet. Therefore, the questionnaire was administered only to those households, where the adults (male/female) were available at the time of the survey. Informal consent from the community was obtained during the meetings for participating in the HRK survey for at the most a period of one year. Households, which had members with permanent jobs, were not considered in the HRK survey. Also the households with hardly any source of income were dropped, as the possibility that they would migrate for work were high. Once the information collected from the baseline survey was processed the households for the HRK survey were selected and the process of data collection using the HRK tool was initiated.

The One-time Survey of Resources and Capabilities

Only the households selected for the HRK survey were included in this survey. The objective of this survey was to collect data on various aspects of the 'resources' owned and

accessed by the households for conducting their livelihood activities and also 'capabilities' possessed by members of the household. The reason for conducting a one-time survey to investigate these categories was that the 'resources' and 'capabilities' do not change frequently. The data collected in this survey included the following areas:

- Ownership of the assets such as land, farming equipment and livestock
- Cultivated crops, fruits and vegetables
- Total annual expenditure on seeds and fertilizers
- Status of irrigation
- Access to and availability of drinking water
- Sources of and reasons for borrowing
- Benefits obtained from schemes
- Expenditure on health

2.5 The Study in the Paradigm of Participatory Action Research

It is evident from the above description about the methods used for the study are rooted in the paradigm of 'participatory action research' (PAR). Before examining whether the assertions about PAR (see Box[1]) obtain in this research study, it is necessary to take note of a fact that only a part of the PAR conceived by the ReLi group is complete so far. Though the awareness building in community was an inherent part of the research completed so far, 'community action' an integral part of PAR would come in focus during the next part of this research study. It will involve generating demands for livelihoods security schemes, designing and implementing them with the community. During the research completed so far, instances of such spirals of 'planning, acting/observing, reflection, re-planning' have been observed. For instance, a particular process brought forth certain learning's that fed into and modified the further research process. A few examples are:

1. Though a purposive sample of households to cover all kinds of variations (distance from service road, nature of livelihoods etc.) was planned, the choice was finally controlled by the availability of competent data recorders in the hamlets.
2. A few local young men and women volunteered for collecting data on their own households. They were allowed to do so. This was not initially planned in the study.
3. A few data recorders became full time activists of the GrOs during the phase of data collection. This was an unexpected, yet welcome happening.
4. Though it was decided to collect data for a year to cover all seasons, at the end of nine months many data recorders seem to have lost their motivation.

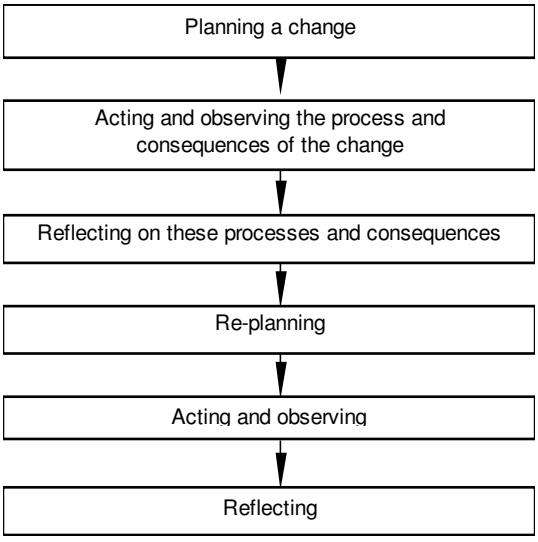
5. Though the data has been collected on a large number of variables, the prioritization of variables to be analyzed was done on the basis of suggestions made by the GrO leaders.
6. It was decided to interview a few committed data recorders much later during the study. This qualitative research component was not earlier planned.

The above instances could be conceived as parts of smaller spirals of the research process which in turn would be part of a larger spiral that would be achieved with the progress of other planned steps such as generation of livelihoods demands, design of the tools for the same, and finally design and implementation of alternative schemes for livelihood security and their implementation. The outcome of that process would then lead to a reflection on the whole research process and that in turn is expected to lead to another spiral of planning for change, acting, observing, and reflection.

As far as the shared ownership of research projects is concerned

Participatory Action Research

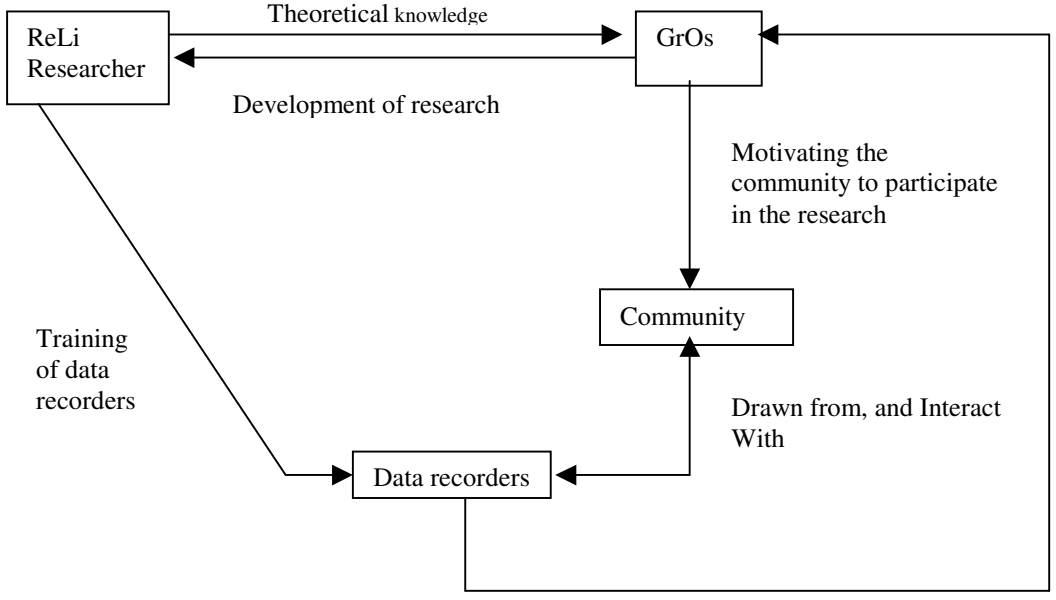
These are the three basic attributes of PAR: (i) Shared ownership of research projects, (ii) Community-based analysis of social problems, and, (iii) An orientation towards community action. (Kemmis and McTaggart, 2000). The process of PAR is generally thought to involve a spiral of self-reflective cycles as shown in figure 2. In reality, the process may not be as neat as the spiral of self-contained cycles. The stages overlap and initial plans quickly become obsolete in the light of new experiences gained from fieldwork. The criterion of success is not whether participants have followed the steps faithfully, but whether they have a strong and authentic sense of development and evolution in their practices, their understandings of their practices, and the situation in which they practice. (Greenwood and Levin, 2000). As far the issues of reliability and validity in the PAR are concerned, Greenwood and Levin, maintain, "Research cannot be regarded as self-justifying, or as justified solely by reference to internal criteria (for example, methodological criteria); research is also a social practice, to be evaluated in terms of the extent to which it contributes to confronting and overcoming irrationality, injustice, alienation, and suffering, both in the research setting and more generally in terms of its broader consequences. Action researchers do not make claims to context-free knowledge, nor are they interested in achieving such knowledge. Credibility, validity, and reliability in action research are measured by the willingness of local stakeholders to act on the results of the action research. The core validity claim centers on the workability of the actual social change activity engaged in, and the test is whether or not the actual solution to a problem arrived at solves the problem.



representatives of grassroots organisations were involved in this research right from the operationalization of the concept of livelihood, choosing the research methods and designing the research tools, and in analysis and interpretation of data. The questionnaires for the surveys were refined through discussions with the GrO activists who are working closely with the community. The community members collected data on their own community. The information on research process was frequently communicated to the GrO leaders and their feedback helped in smooth progress of the research. The GrO leaders intervened whenever required and their help was crucial in maintaining the motivation of data recorders. The framework for analysis of data evolved with the GrO leaders identifying the priority areas for exploration. The ReLi group has planned to disseminate the findings of research among the tribal communities in the district in the local language (Marathi). The flow of information and knowledge among the researchers, the GrOs, and the community has not been hierarchical or uni-directional. It has been complex and all stakeholders have learned from each other. The Figure 2 below is an effort to diagrammatically represent this process.

As stated earlier, in the PAR rigor means the willingness of local stakeholders to act on the results of the research and the claim of validity rests on whether or not the actual solution to a problem arrived at solves the problem. It has already been explained that the 'community action' would be the focus of the next part of research. However, the instances of 'action' and of rise in awareness have already manifested themselves; in the confidence of data recorders that they can bring about a change to their community, in the decision of some of them to become GrO activists, in their initiatives to take up issues at local level, and, in some community members and some new hamlets volunteering to participate in research. This aspect is discussed in detail in the next section.

Figure 2: Framework of Action Research



Regarding dissemination of the findings of the study a workshop was held (on November 10, 2003) for senior activists working in the State of Maharashtra on different development issues to explore how these results can be used in their advocacy efforts. The ReLi researchers made presentations about the experiences in the research process, the nature of data collected, the methods used and findings from preliminary data analysis.

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Section 3

The HRK tool and The Data Recorders

3.1 The Process of Designing the HRK Tool

Once information was collected in the baseline survey regarding the livelihood activities and outputs of the households, based on yearly recall, this data was used for selection of households for the HRK survey. The following criteria was applied for the selection of the households for the HRK survey:

- Availability and willingness of the respondent household to participate in the study
- The respondent should not be alcoholic. This was to ensure that s/he would be in a position to give information in a responsible manner
- The household should not migrate during the entire period of the data collection
- Preference to women-headed households
- Amicable relationship with the GrO and the recorder

As far as the livelihoods activities were concerned, it was desired that the sample households should represent a wide variety of livelihood activities that were being performed by the tribal households. Therefore, the data obtained during the baseline survey was classified on the basis of their primary and secondary livelihood activities and its contribution to their total earnings (both in cash and kind). However, the total numbers of households that met the above criterion and also had a data recorder residing in the same hamlet were limited. As a result there was not much scope to make choice based on this criteria (livelihood activity) in preparing the final list of households.

While on the one hand the researchers conducted the baseline survey and analyzed the data, the process of designing the HRK tool was also initiated simultaneously. As mentioned earlier from the 500 questions listed to cover all aspects of the livelihoods, the questions that required to administered on daily or frequent basis were selected for the HRK tool. The questions in this tool were formulated in such a way that the community members would understand them easily. The most important characteristic of the HRK tool was its potential to elicit an insider's view; as the data recorders were from the tribal households. Another unique characteristic was the recall period of only a day that enhanced the dependability of the data. Moreover, a survey planned for an entire year's duration ensured that the data would adequately account for seasonal and other variations in livelihoods. It

covered events that occurred daily as well as occasionally. The HRK tool enabled the collection of a rich volume of data. Although data collection on a daily basis is an arduous task for the data recorder, the simplicity of the questionnaire reduced the time required for covering one household to ten to fifteen minutes. The pre-testing of the HRK tool was done in the period March to April 2003, and actual data collection was initiated in May 2003. The pre-testing was also quite extensive and covered more than 50 households. The community meetings conducted prior to this at the time of initiating the Baseline Survey had created conducive atmosphere in the communities to begin the work of administering the HRK tool. The selected data recorders played a key role in the pre-testing. The pre-testing of the questionnaire provided concrete indications as to where simplification, restructuring, or changes were needed. This helped make the questionnaire user-friendly for the data recorders. The data recorder to each respondent household administered this tool every alternative day, and data for two days, preceding day and same day was recorded at the time of each administration session. A sample copy of the tool translated in English is appended to this report.

Sustaining the year long process of data collection —that hinged on the semi-literate data recorders coming from the community— with meager resources needed a well-organized system. The GrO leaders and the ReLi researchers collectively evolved this structure. The four-tier structure consisted of the data recorders at the hamlet, the monitors – senior voluntary members of the GrO at the cluster of hamlet level, the full-time paid worker of the GrO at the taluka-level and the two GrO leaders at the GrO level. The criteria evolved for the selection these functionaries and their four-levels of responsibilities are given below. The criteria for selection of the data recorders were as follows:

- Should be residing in the same hamlet
- Should have basic reading and writing skills and should be able to read, write, and understand numbers (up to one thousand)
- Should be positively willing to get associated with the study

The responsibilities of the data recorders in the data collection process were as follows:

- Should visit the households that have been assigned to him/her preferably on a daily basis or on an alternate day for a period of a year
- Should share the difficulties encountered during the data collection process and seek the guidance from the hamlet level monitors
- Should attend the training workshops

The criteria for selection of hamlet level monitors were as follows:

- Should be a senior worker of the GrO who would frequently visit the hamlet or is a resident of the hamlet
- Must have good communication skills and rapport with the people in the area

The responsibilities of the hamlet level monitors were as follows:

- Should motivate the respondents as well as the recorders and should help in building a rapport between them
- Should guide and help the recorder, if difficulties are encountered at the level of respondent
- Should ensure adherence to the planned time-table
- Should report to the GrO's full-time taluka-level worker regarding the difficulties encountered and progress of work
- Should give feedback on performance of the recorder
- Should be ready to visit the sample households once in every three to four days to ensure healthy communication and dialogue between the respondents and the recorder
- Should attend the fortnightly meetings with the GrO's taluka-level workers as well as ReLi representatives

The main responsibilities of the full time worker of the GrO were to ensure that the data collection process was proceeding smoothly and to give guidance in case of difficulties. The responsibility of the ReLi Research Associates was to ensure and sustain the momentum of the data collection process. They checked each and every filled-up questionnaire for internal consistency and gaps. They also monitored the process by visiting the hamlets twice in a month. During these visits they resolved the difficulties faced by the data recorders and the monitors. Whenever required, they conducted informal meetings in the hamlets with the respondent households. If the respondents were found to give inaccurate information or to hold back information, they used to make the necessary interventions.

3.2 Data Recorders: The Main Actors in the Use of the HRK Tool

The young men and women from the tribal hamlets who worked as the 'Data Recorders' played the key role in the HRK survey. They collected data consistently, that too on a daily basis, for a period of more than six months. Their consistency, commitment, and the quality of their work proved that, given an opportunity, even semi-literate members of persons will little education and belonging to the economically and socially marginalized communities can participate effectively in the research process on a sustained basis.

Furthermore, this experience also revealed that the recorders also hold an immense potential to work as community level activists for the GrOs. The data collection process using the HRK tool at the community level demonstrated that the youth of the marginalized communities, in many cases, first generation literates could play an instrumental role as agents of change in the process of development in their own communities. This is evident from the many case studies of the data recorders, which was collected as part of this research study and is presented in the appendix to the main report. On this issue the GrO leaders suggested that the data recorders should not by paid any remuneration in cash. Each recorder spent about fifteen minutes to one hour daily in data collection, depending upon the number of questionnaires they filled up. As they carried out the work in the evening, none of them who were working had to give up their wages due to this work. Instead of monetary compensation incentive was given in the form of things (books, waterproof bags, umbrellas, torches, caps). The GrO leaders felt that this would be in keeping with the tradition of the Sanghatana (a GrO), i.e., the tradition of voluntary participation by the community in activities of GrOs.

One of the recorders was instrumental in motivating the young men from his hamlet to participate in the 'self-administered HRK'. In this mode of administering the HRK tool, the literate member from the household (in most of the cases young men) volunteered to record the information of his own household. A recorder, himself took an initiative and decided to collect more details on the variables in the questionnaire. He maintained a separate notebook for listing down the details, as he found the space provided in the questionnaire form insufficient. During the course of time the number of respondent households as well as the number of recorders increased. Both volunteered to participate in the study. Some of the recorders displayed determination, meticulousness, and discipline of high order. They recorded data without errors, for more than six months. Two activities that were carried out to ensure unhindered progress of the HRK survey, (a) a series of training workshops for the data recorders and, (b) monitoring of the data collection process by ReLi researchers. Both these are described in detail below.

Selection of the Data Recorders

As mentioned earlier, the GrO leaders had insisted that the data recorders should be from the community itself, if the research wants to bring forth the insiders' view of the livelihoods situation of the tribal communities. Their insistence was based on the premise that the community would be comfortable to share information with persons belonging to their own communities and this would open up avenues for brining out the true situation of the tribal communities. However, there were other reasons why the data collectors had to be

from the same hamlets. Collecting data on a daily basis was a requirement of the study, which made high demands on recorders' time. Moreover, there was another constraint arising out of the local circumstances. As the respondents would be busy in their livelihood activities for the whole day, the work of interviewing the respondents from each household must be conducted during the evenings when they would return to home. The GrO leaders and workers thought that the ideal data recorders would be the young men and women who would be either school dropouts or school-going, in most cases, the first-generation-literate. As mentioned earlier, a list of prospective recorders was prepared with the help of the GrOs. Most of them were either a part of the GrO network or their parents were members of the organization. They were invited to attend the workshops where they were selected by the ReLi researchers. All most all persons who participated in the workshop began work as data recorders. Besides asking the prospective candidates to fill up a few simple forms informal interviews were conducted with each of the prospective recorders. The purpose of these interviews was to judge the participants' willingness to participate in the study, their aptitude and the understanding of the study, which they developed as a result of the workshop. The interviews helped to identify the participants who would require more training. The workshop also helped the researchers build a rapport with the participants.

Training Workshops for the Data Recorders

A total of eleven workshops were conducted during the entire study period spread over approximately one and half years. As the study progressed, more and more local youth volunteered for data collection. While twenty-seven data recorders attended the first workshop, fifty attended the last. The objective behind conducting the workshops was threefold: (a) training the selected data recorders for data collection, (b) building their capability by exposing them to larger issues and (c) Sustaining their motivation for engaging in the data collection work on a sustained basis. The workshops were conducted almost every month and each workshop lasted for two days including an overnight stay. The ReLi researchers and GrO leaders facilitated the training sessions. The workshops were conducted at *Mangaon*, a taluka place.

The workshops were interactive and informal. Care was taken to create an atmosphere where the participants would feel comfortable. They were encouraged to talk freely and share their experiences. Various participatory techniques such as ice breakers, songs, games, free listing, throwing-in thought provoking questions that they could relate to their own lives, and focused group discussions that generated stimulating discussions were used. The facilitators would bring up a certain topic and would then encourage the participants to discuss it. Recorders who consistently recorded data of good quality and of

those who volunteered to do extra amount of work was recognized during the workshops and improvement in quality of work was appreciated. This kind of encouragement was thought to be vital in sustaining their motivation. This serious work was also accompanied with entertainment.

One of the main techniques used for the training for data collection was the group discussion. During the workshops, the recorders were encouraged to discuss among themselves the problems encountered while recording the data in the HRK questionnaires, how they overcame those problems, and support needed in their efforts. Later they would jot down the main points discussed on a chart paper. The groups were asked to choose their leader to present their discussion. Then the difficulties they encountered were discussed and resolved. The errors in their work were identified and suggestions were given for improvement. The skills of counting and classifying the data in categories were taught with the help of simple exercises like writing down the names of the trees from the surrounding area and then categorizing them in classes like trees, bushes, shrubs, etc.

Building of capacity, in fact, involved making them aware of the linkages between their livelihoods and the larger social reality. The underlying assumption was their appreciation of these linkages would have direct consequence for their level of motivation. They were introduced to larger issues that affect their day-to-day living and tried to raise consciousness among them of the social reality that compels them to live a marginal existence. In a way an attempt was made to expand their horizons. In the process they interacted among themselves and shared their experiences, learning's, and difficulties.

The following are examples of the topics discussed the training workshops. The background and purpose of the study was elaborately discussed with the data recorders. In this significance of the study to the lives of the tribal households for identifying their specific needs/concerns by collecting information about how they live, what activities they do for living, what resources/capabilities/skills/knowledge they require for conducting those activities and what they gain by doing those activities was emphasized. A PRA exercise to explain the importance of seasonality in the livelihoods of rural people was conducted. This exercise demonstrated the lack of stability and seasonal changes in the livelihood activities of the tribal households. The participants could then appreciate the need for collecting data for an entire year to capture the seasonal change and diversity of the livelihoods.

Empowerment through Participation in Data Recording .....

The limitations of 'Below Poverty Line' (BPL) survey and its method of data collection were explained to the data recorders. They were made aware of the fact that the people who are poor many times do not get classified 'Below Poverty Line' and hence do not get the benefits of the government's schemes. Through this discussion they realized the importance of being aware and maintaining information on one's own livelihood. This followed with a discussion on how those having knowledge (i.e. those who can use a pen) hold power over those who do not have it. The participants were asked to enumerate the names of villagers who use a pen to write (excluding the school going children). The outcome of this exercise was two lists: A list containing those people who do not use a pen. These were illiterate adults, laborers, farmers, and women. On the other hand the list of pen users consisted mostly men who influence control and power on the villagers. The participants saw that the two lists represented two classes of people: pen represents writing skills, which in turn means being educated. Education leads to knowledge, which means power and power in turn leads to the class difference. Hence the entire process of recording data about their communities was placed in a paradigm of empowerment through ownership of information and knowledge.

The government's approach towards development of the marginalized was discussed with the participants, by giving the examples to which they could easily relate. During these discussions the various issues related to government's approach which were discussed were: the mismatch between people's needs and what government offers through various schemes, how the government collects data to identify beneficiaries of the schemes, lack of transparency, and exclusion of the marginalized due to the non-participatory data collection methods. These issues were explained in an interactive manner. After throwing light on the government's non-participatory data collection, the participatory data collection processes were focused upon. In the context of government's data collection process, the significance of participatory data collection, where the community plays important role in putting their concerns at center, was highlighted.

The entire research process of collecting the information, counting, sorting and classifying the information, looking for the linkages and interpretation was explained to them. Following this the importance and significance of the documentation of information was also stressed upon. Here the politics of information i.e. how the dominating class usurps power by controlling information and how they use information to serve their own interests was elaborated.

The participants also visited the demonstration plot developed by the ReLi team where experiments in sustainable cultivation are being conducted. The objectives of these experiments are, catering to the nutritional needs of the marginalized and increasing the yield in small plot cultivation by optimum utilization of the local natural resources.

The ReLi group members organized an exposure visit to the city of Pune for the data recorders. In this exposure trip the data recorders were taken to a zoo, a tribal museum, they were shown films and also interacted with a senior creative writer and social worker. The highlight of the visit was an interactive session students of *Kashtakari Vidyalaya* (school of the working class). The students in this school come from the underprivileged sections of the urban society. Some of the students are working in the informal sector while pursing their school education. The data recorders and the students exchanged their experiences of life, their hardships, and their ways of coping. For the data recorders, this interaction helped break the myth that everybody in the city lives a good life.

Towards the end of the data collection process the data recorders were publicly felicitated. In this function the members of the households, which participated in the data collection activity, parents of the data recorders, workers and volunteers of the GrO, and other members of the community, were present. More than 300 tribal men and women were present. The data recorders were given certificates of appreciation of the voluntary work done by them. The frequent interaction between among the recorders during the frequent training workshops and the exposure trip developed a sense of comradeship among them. They looked forward to meeting each other and found out about each other's life. They visited each other's homes and during the process motivated each other for the data collection work.

3.3 Monitoring of Data Collection

As mentioned earlier, a four-tier structure was envisaged to organize the data collection consisting of the recorders, the monitors at the cluster level, the taluka-level workers of the GrOs and the ReLi research associates. However, the workers of the GrOs could not give necessary time to this work. Therefore, the ReLi researchers shouldered the entire responsibility of monitoring the data collection. Helping the data recorders sustain their motivation was an inherent part of the monitoring process.

The monitoring process was carried out at two levels: in the tribal hamlets and at the ReLi office in Pune during the process of checking the HRK forms and validating the data. In the beginning, the ReLi researchers used to visit the hamlets once a week. Once the process of data recording was streamlined, the researchers gradually reduced their visits to the hamlets to once in twenty-days. The visits to the hamlets provided an opportunity to sort out the difficulties of recorders and ambiguities in their work. They always checked all the filled-up questionnaires for any errors and got them corrected. It was also checked whether certain questions remained unanswered. Throughout the study, the data was checked for

internal consistency. In the beginning the quality of the data collected was not satisfactory. Gradually, the recorders improved in work and two months of pre-testing and training period the quality of data improved to an acceptable level.

ReLi team's office in Pune is at the distance of five-hours journey by bus from the hamlets where the data collection was conducted. When the completed questionnaires came to the Pune office, the data coder went through them very carefully. He graded each questionnaire depending on the quality of the filled-up data. When there were doubts regarding the consistency of data, the questionnaires were sent back to the data monitors for clarification. The ReLi researchers found that the recorders were hard working, sincere and committed. Sometimes they shared their personal or familial problems with the researchers. These informal interactions led to close bonds and rapport between the two. During the monitoring visits, the researchers also interacted with the households of the respondents and the people in the hamlet. The researchers gave due respect to community members. Their views were taken seriously even if the were against the researchers' own convictions. Regular visits to the hamlets became a part of the researchers' lives and the community also missed them if they could not keep to their usual schedule.

Although, in general, the consciousness about their own situation developed slowly, in certain hamlets the HRK study played an instrumental role in motivating the community to convey its needs to the GrO leaders. In certain hamlets, through ReLi researchers, the community made a demand that they wanted to discuss certain problems such as the issue of ownership of land with the GrO leaders and they expected guidance as well. Whenever the need was felt or when the community made the demand the GrO leaders were requested to conduct meetings for them.

These meetings were essential either to sustain the motivation of the respondents or to discuss the various hamlet level issues. In these meetings apart from the concerns of the community, the GrO leaders emphasized how the HRK study could play a vital role in substantiating their issues with data, to pressurize the government. In future sharing and discussing the findings from the data analysis in all participating hamlets would take this process ahead.

3.4 Accomplishments made in the Process of Data Collection

As they participated in group activities and interactive sessions the confidence communicative abilities of the data recorders improved substantially. Gradually, they started expressing themselves and became more vocal. Initially they were reluctant and resistant,

however when they started making presentations their body language changed. This was evident in their posture, voice, eye contact, and actions. In the later workshops, the recorders eagerly came forward to describe their experiences and difficulties during the data collection. In one of the workshops, Ms Surekha Dalvi (a GrO leader) coined a slogan that captures the essence of the study:

We will Collect Our Information
We will Design Our Schemes
We will Implement Our Programs
Our Development in Our Hands

Stickers with this slogan written on them were prepared and distributed amongst the respondent households and recorders. These stickers were stuck on the walls of the houses of the respondent households. The community members in the hamlets and other visitors (relatives, friends) saw the stickers and wondered about the meaning of the slogan. They thought it was regarding some government scheme. The resultant conversations spread the word about the study in the tribal community. In a way, the recorders and the respondents' new identity as the participants of a new initiative of the GrO got established through this process.

For the researchers and the GrO leaders, it was a pleasure to witness the change in the teenaged boys and girls. Boys and girls, who were initially shy, became articulate and assertive enough to put forth their own views. The leadership qualities that were nascent so far showed up. Some of the problems and issues they tried to address were related to water, electricity, the internal road, the ration card and the right of BPL cardholders to receive the allotted quantity of food grains. They also started taking interest in the role and the responsibilities of the *Gram Panchayat*.. The GrOs have rightly recognized this and have started the process of involving them in the workshops and meetings of the GrO. The GrO leaders believe that the recorders can become activists who can link the community with the organizations.

3.5 Difficulties Encountered During the Data Collection Process

Since the HRK method involved collecting data on a daily basis it was difficult to maintain the motivation of both, the data recorders as well as the respondents for one full year. The data recorders – coming from the marginalized sections and having little exposure – were shy, timid, and new to the research process. Majority of them needed enough time and space to learn and get used to filling-up the questionnaires. The respondents, on the other hand, also took time to get used to answering questions daily without getting tired or bored.

A considerable amount of time (almost one to one and half months) was spent till the system started functioning smoothly. There were instances when data could not be collected as the respondent-households left the hamlet for a few days for wage-labor.

The households from *NaraliAmba*, a hamlet in the operational area of SKS, were selected for the HRK survey. Despite the absence of any literate person in the hamlet, this hamlet was selected because the community was very keen to participate in the study. Special arrangements were made to collect data in this hamlet by a young man from a neighboring hamlet (at a distance of approximately one km) by visiting the hamlet alternate days to collect the data. However, since this arrangement could not work, the community came up with a solution that the work of filling-up the HRK questionnaires could be given to their own school-going children (first generation literate studying in 3rd or 4th standard). Unfortunately, this alternative too did not work, as the children were too young to fill-up the data and to appreciate the significance of the study in order to work consistently. Thus, finally, the households from this hamlet had to be dropped despite their high level of motivation.

In another hamlet, after about two months of data collection, the recorder started returning home very late due to the work he had taken up and then obviously could not collect the data. In certain hamlets the data recorders were very young - in the age group of 13 to 14 years. They were school going children studying in 6th or 7th standards, again the first generation literates of the hamlet. These children were very enthusiastic. They took a lot of interest in the training workshops. But the data they collected was not up to the mark due to their young age. Their data could not be used for analysis. Still they were encouraged to continue with the data collection, as the GrOs did not want to dampen their enthusiasm.

As the study progressed, some recorders started working as full-time GrO activists. Therefore, they could not give enough time for data collection. Though the quality of data collected by these recorders is quite good, there were intermittent gaps of three to six days when they did not collect the data. Therefore, the households they covered could not be included at the analysis stage.

Some household from the sample had to be dropped, as they did not co-operate. Some of the recorders developed an expectation that they should receive remuneration in return for their work. However, as mentioned earlier, the decision had been taken against giving remuneration to the data recorders in consultation with the GrOs. This proved to be a de-motivating factor for some recorders. In one hamlet the HRK survey never took off. Due

to the odd working hours of the data recorder the recorder could not manage to collect any data.

It was felt that a greater involvement of the GrO workers would have helped to sustain and increase the motivation of the recorders and respondents. It could have also helped in avoiding problems like the recorders and the community developing an expectation for monetary compensation at a later stage in the data collection process.

3.6 Profile of the Data Recorders and their Performance

The following discussion is based on the data collected about the data recorders by the staff of the ReLi. Table 108 presented in Appendix III summarizes the findings of this survey in which the data recorders were the subjects of the study. Data regarding all the forty-six data recorders who participated in the study are presented. Based on the analysis of the data presented in these tables and the researchers' perceptions an attempt was made to explore what motivated some of the recorders to perform better than the others. The researchers acknowledge that not many generalizations can be made from the data of forty-six recorders of varied age, education, and background. However, this exercise was conducted as part of this study with a view that these observations could provide the vital clues and insights for similar endeavors in future.

For analysis, the data recorders have been categorized in two categories, based on to which household the data recorder administered the HRK too, i.e., his/her own household or some other household in the hamlet. These categorizations are based on the assumption, as it was believed that the nature of work involved in 'collecting data on own household', and 'collecting data on households other than own' is different. The work done by first category of data recorders is being referred to as 'self-administered HRK', and hence the nomenclature used to indicate these two categories is as follows: (a) data recorders recording data of own household – Self Administered **(SA)** data recorder, and (b) data recorders recording data of other than own household – Non Self Administered **(NSA)** data recorder.

Besides these two categories recorders were also classified into two other categories, namely, (a) data recorders whose data was considered in the data analysis and interpretation for the report of this study, and (b) data recorders whose data was not considered in the data analysis and interpretation for the report of this study. The following nomenclature has been adopted to represent these two categories: **R**ecorders who's **D**ata was **A**nalysed **(RDA)**, and **R**ecorders who's **D**ata was **N**ot **A**nalysed **(RDNA).** Thus, the entire set of recorders involved in this study could be classified as follows:

Data Recorder Category	Data Considered for Analysis - RDA	Data Non Considered for Analysis - RDNA	Total
Data Recording of Households Other Than Self – **(NSA)**	Category I - 14	Category II – 17	**31**
Self Administered HRK **(SA)**	Category III - 7	Category IV - 8	**15**
Total	**21**	**25**	**46**

It can be seen that more than half of the recorders could not collect satisfactory data. Two of the data recorders in category II were children (12 years) and five in category IV were children (below 15 years of age). The following is a brief discussion regarding the profile of the data recorders in each of the above category. This discussion tries to throw light on those aspects, which are pointers for making inferences regarding the performance of the data recorders, i.e., to say pointer to identify specific reasons, which facilitate or inhibit the good performance of the local youth in data collection in their own community using the HRK tool. These aspects are as follows:

- Gender of the Data Recorder
- Age of the Data Recorders
- Educational Status of the Data Recorder
- Marital Status of the Data Recorder
- Livelihood Status and Poverty Situation of the Data Recorder
- Association with the GrO of the Data Recorder
- Participation in the Training Workshops
- Number of other Data Recorders in the Hamlet

The following is a detailed discussion on each of the above points.

Gender of the Data Recorder

Of the total of 46 data recorders, 14 are female and 32 are male. In the NSA categories, there are ten female data recorders and 21 are male. Similarly among the ten data recorders in the SA categories who are not children only three are women. Hence, on the whole there is a pre-dominance of male members among the data recorders. However, this is because of the preference given to male children for education and the low educational status of the girl child, especially in the marginalized communities such as the tribal communities under study.

Age of the Data Recorder

Certain hamlets did not have any literate adults. Therefore, the school going children (12 to 14 years of age) worked as data recorders. It was found that none of these young children could work consistently. Some of the children did record data in an orderly manner intermittently. For example, in the hamlet of Mahagaon a 12-year-old boy studying in the 6th standard was able to record data neatly. However, like other children he too could not work consistently. The ReLi researchers feel that his neat work could be attributed to the influence of a whole team of motivated data recorders in the same hamlet, Mahagaon. The following table shows the age wise distribution of recorders against the quality of data collected by them.

Data regarding the age of the recorders shown in the Table 108 shows that seven recorders between the age 12 and 14 years could not cope with the work of data collection. Of the 3 recorders of age 15 years, one could do the work in a satisfactory manner. The work of one recorder of 16 years was remarkably good. The proportion of good data recorders is high in the age group 16 to 22, and it declines from the age 25 onwards.

Majority of data recorders (13 out of 14) in category I (i.e. RDA and NSA) belong to the age group of 15 to 22. Data recorders in category II (i.e. RDNA and NSA) could be divided in two groups: (a) 9 recorders in the age group 15-22, and (b) 6 recorders in the age group 25-35. In case of SA data recorder (category III and IV). Among the remaining 10 data recorders, four men and three women fall in the category III, and three men and five children below the age of 15 in the category IV. Most of the recorders in the SA category who have performed well (men and women) are in the age group 17 to 22.

Education Status of the Data Recorder

It appears from the field experience gained in this study that for using the HRK tool the minimum level of education is formal schooling up to class seven. Majority of the recorders in category I are better educated (class 7 to 11) than those in category II (8 recorders have education ranging from class 7 to 11, and seven have education ranging from class 2 to 6). In category III, the education of the recorders were as follows: men: one person has been educated up to class four, two up to class six, and one up to class seven. Among the three women members the level of schooling was class four, seven and eleven respectively. In case of category IV, in which all members are men, the level of schooling is class four, six and nine. The researchers observed that the two men in category IV (age 30, 32) were quite keen and consistent in their data collection. However, they lacked the

necessary writing skills. It must have been more than a decade and a half since they left school after passing the 4th and 6th standard examination.

Comparison of the male members in category III and IV shows that the level of education does not seem to be related to quality of data collected. In this context, it would be interesting to compare two men data recorders, one belonging (RDA) to category III (from Hedoshi), and the other belonging to category IV (RDNA) (from NaraliAmba). They are identical in age (32), education (4th standard), marital status (married) and the work they do (own farm and non-farm labor). Both are involved in the work of the GrO in their respective hamlets. However, one has collected good data while the other has not. A look into other factors to explain this difference reveals that there are many factors, which influence the data recorders and the quality of his/her work. The hamlet Hedoshi is comparatively better off and has a higher level of literacy than the hamlet NaraliAmba. A whole group of data recorders worked in Hedoshi in this study. A few of them were quite sincere in their work. The others were not as good, but their motivation was sustained due to the company of and assistance from good recorders. In NaraliAmba and similarly in Kumbharghar, there was a whole group of data recorders. However, none of the two groups had any committed recorders. Consequently, data from none of the two groups was of acceptable quality.

Among all men recorders, the best educated (9th standard) was a young man of 18 years of age from Hedoshi. This young man was neither studying nor working. Therefore, availability of time was not a problem for him. Yet he soon lost interest in the work. Therefore being involved in some kind of productive activity (studying/working) is essential to motivate a person to do some extra work without the prospect of ready returns. This is consistent with the fact that majority of men who recorded good quality data, were working as wage laborers.

Marital Status of the Data Recorder

In category I majority of them (11 out of 14) are unmarried. In case of data recorders in category II all in the age group 15 to 22 are not married, while all in the age group 25 to 35 are married. In case of data recorders in category III and IV, excluding children below 15 years of age, except for a woman who has been deserted by her husband and a man who is 32 years old, all the other recorders (i.e. 8 of them) are unmarried. Hence, among the total of 46 data recorders, 11 are married whereas 35 are unmarried.

Livelihood Status and Poverty Situation of the Data Recorder

In category I data recorders, among the men, three are studying, one is not working as he is disabled, and four are engaged in wage labor. Among the women four are working as wage laborers of which two work on their own farm and two in the farms of other farmers, one woman is engaged in selling liquor, and one does not do any work to earn money. All the women do household work. Among the category II data recorders, among the men two are studying, and nine are engaged in wage labor work. Among the women one is studying, three are engaged in wage labor work (on-farm and/or farm labor) and also in household work.

It is observed from the data regarding the data recorders that among men, 42 per cent of recorders in category I (3 of 7) and 18 per cent (2 out of 11) of recorders in category II are studying. Among the women, none of those in category I is studying, while 25 percent (1 of 4) in category II are studying. Almost all men (category I and II) who are not studying are engaged in wage labor work. The same is true for the women recorders. Profile of the better performing data recorders based on this analysis is follows: Both men and women are younger (15-22), better educated (7^{th} to 11^{th} standard, unmarried, and engaged in wage labor to make a living. The recorders not performing well are seen to belong to poor households, are older, married, less educated and they are also involved in wage labor to earn their living.

In terms of poverty situation the recorders in category I are better off than those in category II. The proportion of poor households is more than 50 percent among the category II recorders, while it is only 14 per cent among the category I recorders. Thus the financial condition of a recorder's family emerges as a factor with strongly influences the quality of data.

In case of category III data recorders, none of the three better performing women recorders are involved in wage labor to earn a living. One of them is studying and another is working for a local NGO. All of them do household work and two of them work on their own farms. One of them is deserted by her husband and lives with her natal family, which is financially in a comfortable position. It is interesting that these women who do not need to get involved in labor to make a living have chosen to collect data only on their own households, as opposed to the women who go out for labor and also collect data on other households. The one woman who is studying in a higher standard (class 11) perhaps cannot spare time to collect data on other households. However, there are two young men of the same age studying in the same class in another hamlet are recording data on four

households each. 4 men in category III and 3 in category IV are involved in wage labor to earn their living. It seems that being a full time laborer does not preclude being a good data recorder.

Association with the GrO of the Data Recorder

Most of the recorders except one each from category I and II respectively had their relatives associated with the GrO. Around 50 per cent of both category I and II data recorders were themselves involved in the organization's work at least marginally. In case of category III data recorders, except for one man, all other better performing and not well performing recorders had their relatives associated with the organization. One of the male recorders in category III and two male recorders in category IV were themselves involved in the organization's work. Thus, by and large the involvement of the recorders in the organization's work does not seem to be a deciding factor as far as quality of data is concerned, but it definitely affects his/her motivation to get involved in this work and also sustain this work.

Participation in Training Workshops

All the well performing and not so well performing recorders attended the training workshops regularly. In fact, two young men recorders from on hamlet, who were good in data collection, never attended the workshops. But they are known to be bright students and have passed the Secondary School Certificate examination (10^{th} class). Though training made a tremendous difference on the work of the recorders, it is also true that that good training and participation in the same, alone does not ensure good data collection.

Number of Recorders in a Hamlet

The researchers have observed that if there is only one recorder in a hamlet, his/her motivation gradually diminishes even though s/he performed well initially. This was found to the case in four hamlets. Only in the case of one young woman in one hamlet was this situation was not observed. This recorder remained consistent in her work throughout the study in spite of being the lone recorder in the hamlet. In her case however, there were other factors that could have contributed to her better performance, such as the strong support of the GrO workers and residents of the hamlet, the recorders mother is a active full-time worker of the GrO and she has also attended other training programs conducted by Prayas in the area of sustainable cultivation.

■ ■ ■

Section 4
Analysis of Data and Inferences

4.1 Introduction

As mentioned in section 3, the study was conducted using three types of tools for data collection. The first tool consisted of a rapid baseline survey, and a one-time survey to assess the resources and capabilities of the household. The second tool referred as the Household Record Keeping (HRK) tool, is a survey tool, in which the survey was conducted on a daily day basis by the local data recorders. The third tool consisted of a uniform interview schedule administered to the data-recorders to gather information for profiling them and assessing their performance. Data from the surveys are quantitative in nature, whereas data obtained from interviews are qualitative in nature. This section primarily deals with the analysis of the quantitative data collected through the surveys.

4.2 Nature and Scope of the Data

The nature of the data collection tools and the process of developing them have been discussed in Section 2. The following is a discussion regarding the structure of the quantitative data collected. The conceptual basis of this study is derived from the 'Livelihoods Framework' as discussed in Section 1. Hence, in the process of designing the structure of the data to be collected, efforts were made to 'ground' the key concepts derived from the 'livelihoods-framework', in the current social and economic realities of the area and community, which was being studied. First, a list of all the possible livelihood activities of the tribal people was prepared [1]. This list included wage labor, agriculture, forest collection, fishing, and animal husbandry. Besides these production oriented livelihood activities, other activities such as sales of produce, and purchase of commodities from the market were also considered. Borrowing and barter were also considered since the tribal people do resort to these means to meet their livelihoods needs and tide over the fluctuations in their production and collection activities. Then, a list of variables, in each of the three livelihood components, namely (a) resources and capabilities possessed to perform a livelihood activity, (b) work performed within each livelihood activity, and (c) outputs obtained from that respective activity was made. This listing was done separately corresponding to each of the major

[1] The term 'livelihood activity' is used here in a generic sense, and includes both production activities, and, exchange and consumption related activities.

livelihood activity mentioned above. The following matrix (Table 5-A) was used to derive, and categorize the variables to be used for detailed investigation using the various research tools.

Each cell in the matrix below (Table 4-A) is referred to as a 'data-category'. There are sixteen categories of quantitative data. The variables within each data category were listed and the survey forms were designed to investigate the sample using these variables. Based on the survey forms, a 'code-book' was prepared to code the data collected into a numerical form for computer-based processing.

Table 4-A: Data Categories of the Data Collected

Livelihood Activity	**Variables Regarding**		
	Resources and Capabilities	**Details of Work Performed in Each Activity**	**Outputs Obtained**
Wage Labor	✓	✓	✓
Agriculture	✓	✓	✓
Forest Collection and Fishing	✓	✓	✓
Animal Husbandry	✓	✓	✓
Sales, Purchase, Borrowing, and Barter			✓
Access to Basic Amenities	✓		
Social Support	✓		
Domestic Work		✓	
Total	**6**	**5**	**5**

4.3 Selection of Household Data For Analysis

4.3.1 Household Selection Based on HRK Data

The Household Record Keeping (HRK) tool was administered to 138 households. Of these, data of only 55 households could be considered for analysis. This is because in the case of 26 households, the data recorders were not able to record the data properly. The reasons for this are discussed in the Section 3 on 'Data Recorders'. Of the remaining 88 households, in the case of 33 households the data was collected and coded, but in the coded data incidence of missing data was high. The following procedure was used to select 55 households from the list of 88 households, based on the criteria of sufficiency of data.

- The first observation period was the monsoon season, consisting of 18 weeks (from June to September 2003). The total number of days considered is 126, from 28th May to 20th September, i.e., from the 22nd to the 39th week of the year.

- The data collected by the data recorders was recorded in the questionnaires on a daily basis. Since, coding the data as it is (i.e., on a daily basis) would have led to the creation of an enormous amount of coded data, and would have made tabulation cumbersome, the data recorded for an entire week's period was aggregated and then coded. This aggregation was done at two levels: (a) aggregation of working days and hours for individual household members —a maximum of three members were considered in calculating and coding this member-wise aggregation; (b) household wise aggregation was done for variables such as sales and purchase of goods. Hence, data obtained from the HRK questionnaires were coded / tabulated in the form of weekly totals.
- Along with the HRK questionnaire, as part of the tool, a check-sheet was maintained in which the data-recorder logged the number of days in a week for which data was collected. This check-sheet was cross-checked by the field monitoring staff of Prayas, but to a large extent the study relied on the sincerity of the data-recorders in this aspect. Based on this the number of days for which data was collected was noted, week wise for each household.
- Of the total 18 weeks for which the data was recorded, coded, and taken up for analysis, a 'week' was considered as selected for analysis, if data was ‘available’ for at least three days of the total seven days. If the week contained data for less than three days, the entire week was rejected. Availability of data here implies, that both data was recorded, and was of good quality, enabling its coding. Thus, ‘data’ here refers to coded data, and not data in the raw form, i.e., as recorded on the questionnaires.
- The rationale underlying this was, even though statistically three days form only 43 per cent of a week's (7 days) data, it was observed in the available data that in most cases the missing days were not consecutive and spread over the entire week. Therefore, the data of even three days was presumed to be fairly representative of the entire week. The underlying assumption here is that the diversity or shift in livelihoods activities, expenditure, income, and consumption occurring within a week would be captured in the record of at least three day's data.
- Also, when the missing days are not consecutive, as was mostly the case with the data in this study, it implies that the data recorder has been visiting the household consistently and hence, the rapport with the household is not disturbed. This ensures that the household is reporting data of good quality.
- Thus, once the acceptable weeks were selected based on the above criteria of a minimum of three days of data availability, a chart was constructed in which the accepted and rejected weeks were marked. This chart was constructed household wise. From this chart, households, which had four or more consecutive weeks missing (based on the above criteria), were marked as completely rejected, and these households were removed from the final data set considered for analysis.

- The rationale underlying this was that, if four weeks of data is missing, it implies that a month's data is missing. Since the total observation period consists of only four months, one month of missing data is significant. This is because such a large gap in the data would not be able to capture the variations in the livelihood activities. Rejection of such cases resulted in the deletion of 33 households. In the selected 55 households, of the missing weeks, at the most three weeks are consecutive weeks.
- Even in case of selected households, in this process, in case of missing weeks (i.e., missing data), the missing data has been completely excluded from the data set, and was not considered in the analysis. No attempt was made to fill the gap of missing data using any method of substitution, or imputation.

Though, some data was missing in the final selection of the 55 households also, but this was considered as acceptable. Table 4-B shows the data regarding the distribution of households according to the number of missing weeks.

Table 4-B: Distribution of Missing Weeks in the Data Set of 55 Households Considered for Analysis

Number of Missing Weeks	No. Of Households	Percentage to the Total No. of Households in Final Data Set
No Missing Weeks	13	24 per cent
One Missing Week	20	20 per cent
Two Missing Weeks	8	15 per cent
Three Missing Weeks	11	20 per cent
Four Missing Weeks	9	16 per cent
Five Missing Weeks	2	4 per cent
Six Missing Weeks	1	2 per cent
Total	**55**	**100 per cent**

Table 4-C: Distribution of Households Selected for Analysis, Based on Number of Data Days

Percentage of Data Days to Total Data Days	Number of Households	Percentage of the Total Sample
90 to 100 per cent	17	31 per cent
80 to 89 per cent	19	34 per cent
70 to 79 per cent	12	22 per cent
63 to 69 per cent	7	13 per cent
Total	**55 HHs**	**100 per cent**

If considered on day-wise basis, it is observed that the observation-period of 18 weeks consists of 126 days as mentioned above. Hence, for 55 households, that total data days for which data should have been available is 55 X 126 = 6903. Of these data for 5733 days, i.e., 83 per cent was available. Of the 55 selected households the percentage of 'data-days' (i.e. number of days for which data was collected, recorded, coded, and was made available for analysis) to the total number of days (i.e. 126) ranged from 97 per cent to 63 per cent. The frequency distribution of this percentage is shown in Table 4-C.

If considered on weekly basis, the total number of data-weeks is 55 X 18 = 990 (for monsoon season). Of this data of 112 weeks (11 per cent) is missing. There are in ten weeks having three data-days (one per cent), 39 weeks having four data days (four per cent), 81 weeks having five data days (eight per cent), and 95 weeks having six data days (ten per cent). 66 per cent of the total data-weeks (i.e., 653 weeks) have all seven days of data. The detailed distribution of the data days per week per household is shown in Table 106 and Table 107 for monsoon and winter season respectively.

Thus, for the purpose of data-analysis, only those households, which have sufficient data, both in terms of the quantity of the data, and its continuity over time, have been selected. This is keeping in view the fact that the study is attempting to capture the variations in livelihood activities over a period of time. In terms of selection of hamlets, such a selection process resulted in the rejection of all households from thirteen hamlets. Hence, only ten of the 13 hamlets in which HRK was undertaken were considered for final analysis. The hamlet wise break-up of the sample is presented in table 4-F.

As is seen from the table 4-F the number of households varies greatly from hamlet to hamlet. Even among the hamlets that got selected, data of all the households could not be considered for analysis. Most of the data (67 per cent) comes from four hamlets, namely Hedoshi, Mahagaon, Ambeghar, and Tareghar. Six hamlets contribute the remaining 33 per cent of data. Since the number of households finally selected from each hamlet is small, they

cannot be considered as representative of the entire hamlet. Therefore, proper comparison of the livelihoods situation across hamlets is hindered. Though, in the data tables, we have presented hamlet wise data for a number of important variables, comparison among only four to five hamlets contributing the bulk of the data has been considered.

Table 4-F: Distribution of Selected Households Across Hamlets

No.	Hamlet	Total No. of Households which were Administered the HRK Tool	No. of Households Selected for Final Analysis	Percentage to Total Sample (i.e. 55 Households)
1	Hedoshi	18	14	25 per cent
2	Mahagaon	11	9	16 per cent
3	Ambeghar	11	7	13 per cent
4	Tareghar	9	7	13 per cent
5	Phansidand	8	5	9 per cent
6	Khandad	5	5	9 per cent
7	Uddhar	12	3	5 per cent
8	Arebudruk	8	2	4 per cent
9	Wafeghar	8	2	4 per cent
10	Dhawate	7	1	2 per cent
11	Mantachi Wadi	8	0	0 per cent
12	Waghwadi	4	0	0 per cent
13	Chikhlgoan	5	0	0 per cent
	Grand Total	114	55	100 per cent

Another factor, which has to be considered while undertaking hamlet-wise analysis, is to see whether the number of households in the sample is representative of the total number of households in the hamlet. It has been observed during fieldwork that the number of households in the hamlet range from around 10 to 40. Hence, the number of households considered here does not represent the hamlet, but in cases where the number of households is considerable (as compared to the other hamlets), say five or more, comparison across such hamlets has been undertaken. This comparison could at best give indications about the status of the hamlet regarding that variable, but the comments made based upon this analysis cannot be regarded as conclusive. Hence, in all the subsequent in the discussion, when hamlet wise data is considered for analysis, only hamlets having five or more households are considered. No comment is possible on the status of hamlets such as

Dhawate, Wafeghar, Arebudruk, and Uddhar, which have only one, two, and three households respectively, representing the entire hamlet.

Though, by adopting the above process of selection and rejection (of households for analysis), the final number of households being considered for analysis is lesser as compared to the number of households surveyed in the baseline survey and HRK. This could be seen as an inherent limitation of this study. Therefore, while the actual conclusions and insights obtained from the analysis of the data are important from the point of view of understanding the livelihoods situation of the tribal people, the limitation imposed by the sample size not withstanding, the social and community processes forming part of the study are of equal importance. If the efforts made, and conclusions obtained are viewed in this larger perspective, this small study could open up significant pathways for future work.

4.3.2 Intra-Household Comparison

Another important point that needs mention here is that while comparison of the data of different variables across households (inter-household) and hamlets has been undertaken. The exercise of comparing the data of different variable within a household (intra-household) could yield insightful results. This analysis could also be useful to understand the relationship between the various components of the livelihood system (i.e., resources, activities, and, outputs). However, due to non-availability of longitudinal data for the entire year, this exercise has not been attempted in the present study. In this study data for only two seasons (monsoon, and winter) was available. Also, since the variable in each of the component of the livelihood system (i.e., resources, activities, and outputs) are many (such as land, access to irrigation, livestock), co-relating any one variable to another from another component (such as wage work days in the activity component) will give us only some idea about the relationship between two variables, and not about the entire relationship of one component (resources) with another component (outputs). This could deflect the focus from the complexity of the relationships between the components of the livelihood system, as well as among the variables, both within a component, as well as across components. Hence, this study has avoided such intra-household analysis of variables. However, for ease of interested readers to engage in such intra-household comparison wherever required, the data in important tables (especially those regarding work and income) have been presented household wise, along with household numbers. The subsequent discussion is restricted to a simple analysis (such as frequency table, computation of averages. etc.) of available data within the various categories discussed above. Using this analysis as the base, inferences about the livelihoods situation of the tribal

have been drawn. The quantitative data used in the analysis, has been supplemented by the observations of the GrO leaders, and Prayas field staff.

4.4 Representative-ness of the Sample

Though the selection of the households for data analysis was conducted using the method described above, an attempt was made to examine the degree of representative-ness of the sample based on a simple comparison of data. This comparison exercise and its results are described below. Prior to the initiation of the HRK survey, and even the one-time survey of resources and capabilities, a baseline survey of households was conducted in the selected hamlets. In this baseline survey 312 households (which cover approximately about 80 percent of the total population in these hamlets) were administered a simple questionnaire. No attempt was made to list all the households in the hamlet and select households for the baseline survey on some pre-set criteria. Instead all households in which respondents were present at the time of the survey (i.e. in the month of January 2003) were administered the questionnaire. Therefore the type of sampling used could be best described as a random sampling, within the given population of the 17 hamlets.

The objective of this survey was mainly to discern the livelihood pattern of the households based on the nature of activities they were engaged in and the proportion of these activities to their cash income. This was assumed to be a fair indicator, at the initial stage, of the livelihood portfolio of the household. Of the 312 households surveyed it was observed that 29 households (9 per cent of the total) earned a substantial part of their income (ranging from hundred to thirty percent) from different type of activities other than wage labor, farming, animal husbandry and forest collection or liquor making, which were the major livelihood activities as observed in the case of the rest of the 283 of the households (81 per cent of the households). The different type of jobs being done by the 29 households included the following: watchman, peon in school or government office, cook in hotel, petty business, work as laborer or watchman in farm houses on monthly wages, and also income from pension.

The data regarding the livelihood sources and income of the 283 households are presented in Table 1 to 11. In the following discussion these 283 households are referred to as the ‘large sample’. Of the 55 households selected for data analysis (based on the HRK data as discussed above), five households earn a part of their cash income from job, and are included in the category of 29 households. The remaining 50 households are drawn from the large sample. These 50 households are referred to as the ‘small sample’.

The cash earnings from job of these five households, which are included in HRK households, but not in this analysis include are as follows. In two households a male member earns salary by working as a peon in a school as a peon in the government health department respectively. For both these household all the cash income is earned from this source. In one household a male member works as a mason, and this contributes to 66 per cent of the households cash income. In one household a male member works in a grocery shop and his earnings contributes 80 per cent of the household's cash income. In the last case the household owns a small grocery shop in the hamlet. Cash income from the shop contributes 77 per cent of the households total cash income. Even though these households have been included in the HRK data set, the cash earnings from these sources will not be reflected in the income from wage labor tables. However, these earnings will be reflected in the household expenditure data. In the last case, of grocery shop, the purchases made for grocery shop is reflected in the expenditure data, but this has been adequately considered while interpreting these tables.

In the following analysis, an attempt is made to compare the data of the large sample and small sample for the same set of variables, i.e. mainly proportional contribution of different source of income to the total cash income, as well as household wise non-cash earning in the form of food grains.

Household size is an important factor influencing the livelihood patterns of the tribal households. Data regarding household size obtained from the baseline survey (Table 11) shows that the weighted average (weighted with the frequency of number of households for each type of household size) of the household size (which includes adults and children) is 4.70 in case of the large sample, whereas it is 5.30 in case of the small sample. This is because proportionally higher numbers of households having eight and nine members have been included in the small sample.

The baseline survey data shows that the sources of cash income include: (a) wages from non-migrating labor, (b) wages from migrating labor, (c) sale of liquor, (d) sale of animal produce, (e) sale of fish, (f) sale of farm produce, and (g) sale of produce obtained from forest collection. In this survey questions regarding each source of income for the past one year (based on yearly recall) was asked to the respondents. Based on these responses, the proportion of each source of income, in the total cash income was calculated. Data in Table 8 shows the distribution of the households according to different income classes. The cash incomes ranged from a minimum of Rs. 420 to a maximum of Rs. 42500, the mean being 11,124. In case of the small sample the range is Rs. 2400 to Rs. 31,700, the mean being 13,153. If, Rs.12,000 is considered as a fair average of the above data sets, then it is seen

that in case of the large sample 65 percent of the sample have incomes of less than Rs. 12,000, whereas in case of the small sample, it is 56 percent, a difference of 9 percentage points. Therefore, the households in the small sample earn marginally more cash than in the large sample. This data is shown graphically in Graph II. Regarding the sources of cash income, data in Table 1 shows that non-migrating wage is a major source of cash income. In the large sample 7 percent of the households do not earn any income from this source, whereas in the small sample 18 percent do not earn cash income from this source. This data, represented graphically in Graph I shows that the distribution of the household across the different class (of proportion of income from this source in total cash income) for the two sample do not vary much, except in case of the class in which 41 to 50 per cent of the income is earned from this source. In case of cash income from migrating wage labor, data in Table 2 shows that whereas in the large sample 82 per cent of the households do not migrate, in the small sample 72 per cent of the households do not migrate. This difference of 10-percentage point implies that the small sample is slightly biased towards migrating households.

Though in the initial selection of households for the small sample it was proposed not to include migrating households, as the HRK activity progressed, some households which had reported income from migrating wage in the baseline survey, but did not migrate this year, at least during the period of HRK data collection, agreed to participate in the HRK activity. Therefore they are part of the small sample. The leaders of the GrO collaborating in the study observe that the decision to migrate for wage work does not necessarily depend on economic considerations. The influence of the peer households also affects this decision considerably. Hence, even if a households reports of not migrating, the chances of it reversing this decision are high, or vice versa. However, regarding the overall trend, of income from this source, the large and small samples do show much variation.

In case of cash income from making and selling liquor, five and six percent of the households engage in this activity in the large and small samples respectively. This is seen from data in Table 3. As regards cash income from sale of animal produce, the data in Table 4 shows that in the large sample 28 per cent of the household earn some cash income from this source, whereas in the small sample 24 per cent the households engage in this activity, indicating a small difference of only four percentage points. As regards cash income from sale of fish the difference between the percentages of households engaged in this activity is nil. For the 14 per cent of households engaged in this activity among both the sample, the distribution of the number of households having various proportion of cash income from this source does not vary significantly (see Table 5). In case of a few households sale of farm produce contributes substantially to the total cash income. As the data in Table 6 shows in

the large sample 36 per cent of the households earn some cash from this source, whereas in the case of the small sample 38 per cent earn cash from this source. The distribution of these households across the different classes representing the proportion of this cash income in the total cash income does not vary significantly. Data from the baseline survey shows that a significant proportion of the households (47 per cent of the large sample) earn some cash income from sale of forest produce. In case of the small sample 42 per cent of the household earn cash from this source. Among these households it is seen from the data in Table 7 that, in the large sample 41 per cent of the households earn less that half of their total cash income from this source, and in the small sample this percentage is 40. However, in case households earning more than half of their cash income from this source, six per cent of the households fall in the category in the large sample, whereas in the small sample this category includes only two per cent of the total households. This implies that there are households whose livelihoods (especially the cash component) are dependent on the forest to a large extent, but they are not adequately represented in the small sample.

Meals earned as part of wage labor, and grains produced on own-farm or exchanged in barter from two important non-cash components of the livelihoods of the tribal people. Data regarding meals earned obtained from the baseline survey (Table 9) shows that in case of the large sample a significant number of households (70 per cent) earn considerable quantity (at least ten days or more per year per person) of meals from the employer. In case of the small sample the percentage of such households is only 38. Thus, there is a significant difference (48 percentage points) between the large sample and the small sample. Even among the households earning meals, it is observed that in the small sample a majority of them (79 per cent) earn less than 30 days of meals per person, per year. This implies that the in small sample households earning meals as part of wage labor have not been adequately represented.

Grains obtained from own farm make a significant contribution in fulfilling the food requirements of the tribal people. As can be seen from the Table 10 in case of large sample 70 per cent of the households obtain grains from their own farm whereas in case of the small sample 82 per cent of the households obtain grains from own farm. Thus, compared to the large sample a higher proportion of households in the small sample engage in agricultural activities. The distribution of households across the frequency classes of amount of grains produced from own-cultivation is fairly similar. This is seen from the graphical presentation of the data as shown in Graph III.

The above discussion comparing the data for a few key variables for the sample households of the baseline survey (large sample), and selected on the basis of availability of

HRK data for analysis (small sample) show that in the case of a few variables there is significant difference across the distribution among various classes between the two samples. Hence, the characteristics of the small sample differ from the large sample in a few areas. However, in most cases, this difference is not significant. This implies that the inferences obtained from the analysis of the data of the small sample could be applied to the larger sample with fair amount of caution.

4.5 Analysis of Wage Labor as an Important Livelihood Activity

Wage labor forms an important component of the livelihoods of the tribal people. Wage labor consists of both farm and non-farm wage labor. Non-Farm wage labor consists of various activities such as working on trucks for loading and unloading of goods (especially building construction material), building construction work, and quarrying (stone, and sand) and mining (bauxite). In case of women, from hamlets located close to urban-industrial centers, non-farm work consists of domestic work in homes in these industrial / urban centers. However, most of this work is insecure, hazardous, and involves working away from home, and in difficult working conditions.

Farm-labor activity consists of working on the farm of land-holding farmers as agricultural daily wage laborers. These farmers may not be large landholders, but still employ the tribal people as agricultural wage laborers during specific seasons, for agricultural operations such as transplanting rice seedlings, weeding, harvesting, and threshing. The GrO leaders also observe that small farmers from the coastal belt where rice is cultivated in large tracts also employ tribal people as farm laborers. They offer cooked food, fish, and even some grains to the tribal people. Their relationship with the tribal people is more cordial and tribal people prefer working for them, as compared to big landlords in the plains. In the area where irrigation facilities are available farm-wage labor increases appreciably due to year-round agricultural operations being undertaken by the farmers.

4.5.1 Work Performed in Wage Labor

4.5.1.1. Employment in Wage Labor

The daily data using HRK was collected in the period June to September 2003. These are the monsoon months and hence the wage labor work discussed below reflects the situation in the monsoon season. The data in Table 13, based on the HRK data, shows the percentage of wage employment per person per household in the monsoon period. The percentage shown in column six is the percentage of the workdays per person. It has been

calculated by dividing the total workdays by the total number of working person in each household, and then by calculating the percentage of this, in the total data days for that household. Hence, this figure represents the wage labor employment rate per person, per household.

Data in column six of this table shows that there are four households (7 per cent of the sample) who have not engaged in wage labor work. In case of the remaining households the percentage of wage employment ranges from 2 to 80 percent, the mean being 19 per cent. There are 64 per cent households, which had employment less than the mean, whereas 29 per cent households had more wage employment than the mean. However, since the range of this data is very wide, further analysis shows that 56 per cent of the households lie in the range of 7 per cent to 26 percent. The mean for this set is 15 per cent. This could be considered as a more appropriate measure indicating the degree of employment offered by wage labor. The data also confirms the field-observations that while most households try to access wage labor work, only a few households (5 to 7) are more successful in getting wage labor work and this keeps them substantially occupied.

Hamlet wise analysis of wage employment rate data presented in Table 17 shows that wage employment rate is higher in Khandad (62 per cent) and Tareghar (50 per cent), whereas it is less in Phansidand (8 per cent). The former hamlets are located close to urban / industrial centers, whereas the latter is located in the interior hilly area. Thus, spatial factors play a crucial role in providing access to wage labor as a source of livelihood. Besides this, there could be other household level factors that need to be investigated. This is seen from the case of Ambeghar, which is located close to the town, but yet reports a wage employment rate of only 28 per cent for wage labor.

The data for the winter season (Table 92) shows that of the 15 households, which participated in the HRK activity, two households (13 percent of the winter sample) did not engage in wage labor during the data collection period of 91 days in winter. None of the members of a household of these two households was engaged in wage-labor activity even in the monsoon season. Of the 13 households, which worked for wages in winter, two households did not earn wages in cash. The employment percentage per working person for these 13 households ranges from 9 percent to 74 percent (Table 92). Of the 13 households, 6 households (40 percent) worked for less than 25 percent of the data-days. Four households (27 percent) had employment in the range from 30 percent to 54 percent and 3 households (20 percent) had 74 percent employment. As in the case of monsoon season, the percentage of employment in Khandad is the highest. Of the remaining two hamlets, Ambeghar seems to be better placed than Hedoshi as far as wage employment is concerned.

4.5.1.2 Farm and Non-Farm Wage Labor

Data in Table 14 shows that of the 55 households, 4 households (7 per cent), do not engage in wage labor (see column 6 and 7), 12 households (22 per cent) engage in only non-farm work (see column 7), and 7 households (13 per cent) only in farm work (see column 6). 58 per cent engaged in wage labor, have a combination of farm and non-farm work. It is also observed by comparing specific household level data from Table 13 and 14, in case of households, which have a wage employment rate of more than 50 per cent, that the non-farm employment rate ranges from 62 to 100 per cent. This indicates that non-farm employment contributes more to a higher wage employment rate.

The pattern of proportionate share of farm and non-farm wage labor in winter is similar to that in the monsoon (refer Table 92). Of the 13 households engaged in wage labor in winter, four households (27 percent) obtain all of their employment from non-farm sources and an equal number obtain it from farm labor. However, the percentage of employment for these groups is quite different. It is between 54 percent and 74 percent for the non-farm labor, and between five percent and 14 percent for the farm labor group respectively. Of the remaining five households with an employment ranging between 18 percent and 37 percent, most of the employment (86 to 97 percent) for four households comes from the non-farm source. Only one household gains substantial (75 percent) portion of its employment from farm labor. If we consider the total days (557) of work of all 13 households engaged in wage employment, 81 percent (451 days) of that employment comes from the non-farm sources.

4.5.1.3 Gender Disparity in Wage Labor Activity

The total population of the 55 sample households is 289. Of these 170 are adults (above 18 years of age) and 119 are children (below 18 years of age). Of these 170 adult persons, 85 are women and 85 are men. Hence, the sex ratio of the adult members in this sample is 1:1. Of the 85 men, all the 85 appear in the daily household record keeping, and therefore have participated in one of the following livelihood activity, namely, wage labor, own farm-work, forest collection and fishing, or animal husbandry. However, in the case of women, only 68 of the 85 women have participated in these activities based on the HRK data. Since, provision for only three working members per household was made in the coding of data regarding individual-participation in the above activities it is possible that of these 17 women members some might have participated in these activities and their data was recorded. but not considered during coding. However, it is also seen that there are not more than two working members, on an average per household. Hence, the possibility of their exclusion due to restricted data coding is very negligible, i.e., in one or two cases only.

In most of other cases these persons are either too old or they are mainly involved in domestic work and hence do not appear in HRK data.

In 55 households, 152 members are involved in different kinds of work, such as wage labor, agriculture on own-farm, animal husbandry, forest collection or fishing. We refer to this group as the 'work force'. Of these 152 persons, 55 per cent are men, and 45 per cent are women. This implies that women's participation in the work force is lower than that of men. Also it is observed that 27 persons, mostly sons and daughters are below 18 years of age, but have participated in one of the above livelihood activities, mainly forest collection and animal husbandry. Hence, it could be inferred that of the 152 persons engaged in various livelihood activities, 125 (82 %) are adults, where as 27 (18 %) are children. It is also seen the proportionately more girls are engaged in livelihood activities (24 % of the total female members) as compared to boys (11 % of the total male members).

Data based on HRK presented in Table 18 shows the gender wise dis-aggregation of the wage labor work. Of the work force of 152 persons, 64 per cent of the persons participated in wage-labor. The rest 36 per cent did not work in wage labor. This implies that they have worked in other livelihood activities such as own-farm agriculture, forest collection, fishing, or animal husbandry. Of the 64 per cent involved in wage labor work 68 per cent are men, and 32 per cent women. This shows that wage-labor work is more male oriented.

Of the total men in the work force 78 per cent participated in wage labor, whereas 22 per cent did not. On the other hand, of all the women in the work force 46 per cent participated in wage-labor, whereas 54 per cent did not.

Data in Table 19 shows that the wage employment rate of men is almost twice that of women. Wage employment rate here, as before, is the total wage working days divided by the data days for that household. Within the households, among the men, the male head of the household has a wage employment rate of 24 per cent. The other household members engaged substantially in wage labor are the sons. Among the women it is the wife and daughters who are actively involved in wage labor work. Together the male head of the household, the wife, and the sons constitute 84 per cent of the work force.

In case of winter season only 15 households' data was considered for analysis. The total population of these 15 households is as follows: Adult (above 18 years of age) Males 16, and Adult Females 16 and Children (below 18 years of age) 43. Of these 32 adults 14 males and 14 females participated in the wage labor activity (refer Table 93). 11 children among the 43 participated in wage-labor, indicating incidence of child labor. Gender wise

analysis of the data shows that 19 males worked for 364 days and earned a sum of Rs. 18, 528 in a period of 91 days. This implies that on an average each person (including the child laborer) worked for 19.5 days (i.e. an employment rate of 21 percent) and earned average cash income of Rs. 50.90 per day. As compared to this 20 females (including the child laborer) worked for 193 days and earned Rs. 6440, implying that on an average one female worked for 9.65 days in a period of 91 days, i.e., an employment rate of 11 percent, and earned a cash income of Rs 33.36. This implies that that employment rate of females is 10 percentage points less than males, and also their earnings is about two thirds of the wage rate of males.

Observations of GrO leaders suggest that the reason for such a type of intra-household distribution of work, wherein at the most, only two to three members are primarily involved in productive work is that most of the households are nuclear. In the communities under study the sons prefer to establish their own nuclear families after marriage. The husband and wife negotiate wages jointly and often they work in a pair. The family organization is patriarchal in nature, and women's labor consists more of domestic work as compared to men. This is reflected in the above data, which shows the sharp differences in the wage employment rates of men and women.

4.5.1.4 Wage Labor Work Pattern Based on Yearly Recall Data

As mentioned earlier, data also was collected from the respondent households through a baseline survey. This survey was conducted prior to initiation of the HRK activity. The data obtained from this survey regarding wage labor work is presented in Table 20. This data is derived from the baseline survey, which consisted of a larger sample, than the HRK survey. However, in this table the data of the same households, as that of the HRK is considered. This holds for all further analysis, even where comparison of yearly recall data and HRK data has been considered.

The data in Table 20 shows that the season wise distribution of wage labor work is almost uniform across seasons. In the monsoon season 34 per cent of the total year’s wage work is done. In winter it is 34 percent and in summer 32 per cent. This, observation does not discount the fact that variations across hamlets exist and are substantial. This is observed in the following cases: (a) in Mahagaon the employment rate is 39 per cent in monsoon, whereas it is 19 per cent in summer, and (b) in Phansidand the employment rate is 25 per cent in monsoon, whereas it is 40 per cent in summer. Hence, spatial factors do affect the access to, and participation in wage labor even across the seasons.

On an average the respondents report an employment rate of 36 per cent throughout the year. This is the data of the 55 households selected in data set of the HRK data. The HRK data shows that the employment rate in the monsoon season is only 19 per cent. Thus, there is a significant difference among the results obtained from the two different surveys with varying recall period. Hence, the comparison of HRK and baseline data and impact of recall period has been analyzed and is discussed subsequently. The data in Table 20 also shows that the disparity among the hamlets in the employment rate of the entire year (of all seasons) is also wide. While Mahagaon has reported a wage employment rate of 17 per cent, Tareghar reports a rate of 64 per cent. This concurs with the earlier observation that hamlets located close of urban-industrial centers have better access to non-farm wage labor work, thereby increasing their wage employment rate. However, the GrO leaders observe that remoteness does not always directly reduce opportunities for wage labor. Because of the spread of various small and large urban and industrial centers in Raigad district, tribal people living in even remote hamlets migrate for wage labor to such places, for period ranging from ten days to more than month

The season wise distribution of farm, and non-farm work based on yearly recall data is presented in Table 21. The data shows that more farm work is done in the early monsoon and early winter, the period of rice sowing and harvesting. Non-farm work is more in winter and summer. It should be also noted that in the yearly recall data 20 per cent and 35 per cent of the households have reported that they do not engage in wage labor in the early and late monsoon respectively. But the HRK data does not confirm this, and shows that most households do access wage labor.

4.5.2 Difficulties Faced in Wage Labor Work

Access to wage labor is one of the crucial issues, which determines the household's participation in this activity. Access is determined by a number of factors such as location of the hamlet, distance of place of work, road link to place of work, availability of transport facilities, and most importantly the source from which information about availability of work is obtained. The source of information regarding availability of wage labor is important since it is a major resource, to access this source of livelihood. When queried on this aspect it was observed that the employer himself was the major source of information regarding availability of wage labor work. The other source of information was other community members, but their proportion does not appear to be significant (please see Table 22).

Regarding the difficulties faced at the work place it is seen that not receiving wage at the proper time or not receiving the wage at all seem to be the most serious difficulty faced

by the respondents. In five cases it is seen that the wage laborers also encountered accidents at the work place (please see Table 23). Another problem faced by the tribal wage laborers is illness occurring at place of work or due to work. Data in Table 24 shows that in four households men suffered health problems, women suffered in one household and children in two households. Of these seven households five of them accessed the private doctor for treatment. The expenses for the same was incurred by the household themselves and ranged from Rs. 100 to Rs. 300.

The above data and discussion shows that wage labor work though present in almost all the households as part of their livelihood activity, it still is a difficult proposition for these marginalized groups. Observations of the GrO leaders suggest that wage labor work entails considerable hardships, both in terms of the physical work done, and the harassment meted out on the tribal people by their employers. But, since wage labor is the major source of cash-income, and cash is required for satisfaction of a variety of livelihood needs, including purchase of food, the tribal households have no other option but to suffer the social and economic oppression and yet engage in wage labor for their livelihoods. This is evident from the following discussion regarding the outputs obtained from wage labor work.

4.5.3 Livelihood Outputs Obtained From Wage Labor Activity

4.5.3.1 Wage Labor as the Primary Source of Cash Income

The data of the households in the small as well as the large sample shows that wage labor is the primary source of cash income for the households. Only households engaged in production and sale of agriculture products such as cereals or vegetables get cash from sources. Similarly, for a few households sale of animals or fuel wood are also other sources of cash income. However, these cases are few, and wage labor is the predominant source of cash income. Since the data days in HRK are not uniform across households, the average earning per wage working person per day has been calculated and presented in Table 12. This has been calculated as follows:

(Total Earning of the household in the observation Period / Number of Wage Working Persons in the Household) / Number of Data Days for the Respective Household

This data in column six of Table 12 shows that only four households (7 per cent) have not been involved in any kind of wage-labor activity. One HH has done 19 days of non-farm work, but has not received wages in cash (Table 13). The reason for this could be that

either the wages were paid in kind, or the wages were taken in advance before the recording period.

This data shows that 97 persons belonging to 55 households, earned a sum of Rs. 74,168, in the monsoon period. The average number of data days is 104. The earning per person per household shown in column 6 shows that this figure varies from Rs. 0.53 per person per day to Rs. 32.29. This variation is due to both, differing employment rates (discussed above) as well as differing wage rates. Another factor, which affects the income, is the mix of farm and non-farm work in the wage labor work portfolio of the household. In the case of hamlets where access to non-farm wage work is possible due to its location near an urban-industrial center, as well as access to farm wage work is possible due to irrigated land in its vicinity, some households have a choice of opting either for farm or for non-farm wage labor work. Given the wide variation in wage cash earning, if the mid 31 households, in whose case the range is smaller, from Rs. 3.08 to Rs. 13.33 are considered the average for this set is 6.98, say Rs. 7 per person per day. Considering two working member per household, extrapolating to a period of 122 days (4 months of monsoon period), the average household cash income from wages works out to Rs. 1680, say Rs. 1700.

The hamlet wise distribution of earnings from wage labor is shown in Table 17. The average daily wage labor income has been calculated as follows:

((Total Income of All Households in the Hamlet from among the Sample {column 11} / Total Number of Data Days {column 3}) / Number of Households in the Hamlet from among the Sample {column 2})

If we exclude the cases of Arebudruk and Dhawate (due to extremely small number of households in the sample) as well as due to the extremities in data (both have a high average daily earning per HH from wage income of Rs. 11.75 and 27.78 respectively), the data shows that cash income from wage earning is higher Khandad, Tareghar, and Ambeghar, as compared to other hamlets. These hamlets are located close of urban or industrial centers. While Phansidand and Mahagaon are comparatively remote, households in Hedoshi are more dependent on own farm cultivation.

Wage income data based on yearly recall (from baseline survey), presented in Table 25 shows that 16 per cent of the households report that they do earn cash from wage labor. 14 households have reported a yearly income ranging from Rs. 200 to Rs. 2000. As the above analysis of the HRK data shows, the average cash earning from one source, i.e., wage labor in one season (monsoon) is approximately Rs. 1700. Hence, such low levels of cash earning do not appear justified. The possible reasons could be (a) long recall period

(the issue is discussed in greater detail subsequently), or (b) underreporting by respondents. Either reasons clearly point out the need for further probing into this aspect.

Further, the data shows that 20 per cent earn between Rs. 2000 to Rs. 4000. 29 per cent earn between Rs. 4000 to 20,000, and a small fraction (9 per cent) earns more than Rs. 20,000. The average cash wage earning works out to Rs. 7473 per annum, based on yearly recall data. Considering the fact that almost all these are non-migrating households, this data clearly shows that even non-migrating wage labor is an important source of cash earning for the sample households, and also for the majority of the tribal people in the area of the study.

Season and hamlet wise analysis of the data of the entire sample (presented in Table 26) shows that the monsoon and winter seasons are lean as far as wage earnings are considered. Each contributes to 28 per cent of the entire year's income respectively. The summer season contributes 44 per cent to the entire year's wage income and is a period of high wage labor work. However, in situations where considerable farm wage labor work is available in the early monsoon and early winter months, as is seen in the case of Mahagaon, wage income could be higher in these seasons. The data regarding income per household confirms the earlier observation that Khandad and Tareghar have higher earning as compared to Phansidand and Mahagaon. This is mainly due to access to non-farm work, and that too due to the location of the hamlets

The above data shows that the households adopt varying strategies in accessing, participating and benefiting from wage labor work. This is evident from the varying earnings from this source, as well as the varying mix of farm and non-farm wage work in the overall wage work portfolio of the household. The data also shows the extreme levels cash income poverty. One of the probable reasons for this could be under-reporting of income by the respondents, especially when boys and girls, young in age, and from the same communities are collecting the data. However, in this context, the GrO leaders note, that in spite of this possible limitation, by and large the tribal people are co-operative in responding to queries, and especially if it is in a formalized form, as in this case, since the data was being recorded on paper.

This does make one wonder as to how the households could survive with such low levels of income, which are much below the official poverty line prescribed by the Government. There could be two possible explanations for this: (a) the members of these households are leading a life of great impoverishment, and not able to obtain the required calorie intake, and hence are living in a state of under-nourishment; (b) since we have not attempted intra-household comparison, we have not looked at the other livelihoods sources

of these households in comparison with their cash earnings. In all probability these households produce their own food through farming, or could earn some more cash through other activities such as forest collection, and animal husbandry. Hence, this aspect would require more investigation, and detailed such studies of such extremely impoverished households could be taken up.

4.5.3.2 Cooked Food obtained as Part of Wage

Another important output obtained from wage work is cooked food (meals) offered by the employer as part of the wage. The GrO leaders observe that in the period before nineteen eighties, wage was paid mainly in kind (both grains as well as cooked food). The practice of paying wages in cash increased from the decade of the eighties onwards. Even now, in some instances wages are paid in kind. The practice of offering cooked food to the laborers continues, and is also preferred by the tribal people. Sometimes, the evening meals are also given in the form of grains. Data in Table 11, from the baseline survey, shows that while 32 per cent of households do not get meals as part of the wages, the rest do. 27 per cent of the households get less than 100 meals and the rest get more than 100 meals in a year. On an average the 37 wage earning households get about 190 meals per year. This is approximately equivalent to 47 days of food, considering two meals per day and two adults per household. But since this distribution is not uniform across households due their varying participation in this activity, it can be safely concluded that the meals offered by the employer contributes to approximately 15 to 20 days of food in the monsoon months. This is definitely a substantial input in the satisfaction of the food needs of the tribal households. But it must be noted that when food is offered it is often compensated by lowering the cash wages.

4.5.3.3 Wage Rate

Wage rate computation based on the income data from HRK shows the disparity between male and female wage rates. Table 3-B shows that while the average wage rate of the men is Rs. 49.70, for women it is 39.16. This implies a difference of Rs. 10.54 or that women get 21 per cent wages less than men. Of course, the fact that the nature of work of men and women is different, even in farm wage labor, has be to considered here. However, in spite of this, the gender disparity (i.e., violation of the principle of equal pay for equal work) does reflect in this observation. Data regarding the wage rates (based on yearly recall) shows that wage rates do fluctuate seasonally. Wage rates vary from Rs. 15 to Rs. 100. The weighted average based on 330 responses (55 households X 6 seasons) was a wage rate of Rs. 43.68. The weighted average has been calculated as follows:

(Wage Rate X Number of Responses Reporting that Wage Rate) / Total Number of Response).

The yearly recall data (Table 28) shows that there is considerable variation in the wage rate. Field observations suggest that besides seasonality, other factors such as location of the place of work, and other demographic, social, and infrastructure related factors, which influence the labor supply and demand, also affect the wage rate. Examples of such factors are information about work availability, road and transport access to place of work, and, location of the hamlet.

4.6 Effect of Recall Period

The use of Household Record Keeping as a tool to investigate and profile the livelihoods of the tribal communities was one of the major innovations in this study. The methodological significance of this tool has been discussed in section 3. In the following discussion we try to analyze the impact of using this tool on the reliability and accuracy of the data regarding wage labor activity. Since the basic feature of this tool is the short recall period, and wage labor activity is very dynamic by its very nature, it appears prima facie that the data obtained from HRK is more reliable. The comparison of wage labor income and work-days data collected from the two sources, namely yearly recall (baseline survey) and daily recall (HRK) is presented in two tables – Table 15 and Table 16.

In case of income data the mean of the income in the daily recall data is Rs. 7.75 and standard deviation is 8.31. In case of the yearly recall data the mean is Rs. 14.17 and standard deviation is 19.38. For yearly recall the range is 0 to 108.57, where as in daily recall it is 0 to 32.29. Therefore, in case of yearly recall the variation in data is more, which could imply that in case of yearly recall, the respondents are not able to recall with as much accuracy as in case of daily recall. Since the number of null cases is 12 in case of yearly recall and 5 in case of daily recall applying tests of significance may not yield reliable results. Also, there are only two cases in which no wage work (null) has been reported in both the surveys. Hence, this would not affect the mean adversely.

Data in Table 15 shows that the average per capita daily income based on daily recall is Rs. 7.75, where as based on yearly recall is Rs. 10.05, an over-reporting of Rs. 2.30 or 30 per cent of the daily recall. The percentage of under-reporting in the yearly recall varies in an unwieldy manner, and consists of 29 households. Similarly the percentage of over-reporting in yearly recall too varies sharply and is seen in case pf 20 households. In case of two households, yearly income is reported, but wage-working persons were reported in the

HRK data. Similarly, in case of wage labor work days data (Table 16) the difference in the percentage points of employment rate between yearly recall and daily recall ranges from -48 per cent (under reporting in yearly recall and accounts for 30 households), to 80 per cent (over reporting in yearly recall and accounts for 20 households). In case of one household there is no over or under reporting. Especially in the case of workdays the recall period seems to make a significant difference because it is very difficult for the respondents to report the number of workdays accurately based on yearly recall. This is due to the dynamic and fluctuating nature of wage-labor work, both across years and across seasons. The fluctuations in the difference between the two data sets have been shown graphically in Graph IV and VI. In the above calculations, in case of HRK data the number of data days has been considered as the base, household wise, whereas for the yearly recall data the total number of data days has been considered as 126 (3 days of May plus, June 30 plus, July and August 31, plus September 30), for all households.

Thus, prima-facie this data shows the positive impact of collecting daily level household data. Though it appears that the recall period does affect the reliability of the data, a small study such as this may not be sufficient to arrive at a decisive conclusion. However, studies such as this can definitely provide vital directions for a more thorough investigation.

4.7 Analysis of Agriculture as a Livelihood Activity

Agriculture forms an important livelihoods activity of the sample households, as well as for the tribal people in general. The output obtained from this activity supplements the income earned from wage labor. However, it is observed that most of the tribal farmers cultivate food crops in marginal lands. A large part of the produce is retained for self-consumption, and only a very small portion is sold in the local market to earn cash, that too by a few surplus-producing households. However, there are many impediments, which these marginalized sections face in producing their own food. Also, the food grown is not sufficient to meet their needs. This leads to food insecurity and impoverishment. In the following paragraphs a detailed discussion of the status of agriculture among the observed tribal households is presented.

4.7.1 Access to, and Status of Agricultural Resources

4.7.1.1 Land Ownership and Access

Land is the primary resource for agriculture. However, landlessness is a major problem faced by the tribal communities. Very few households have their own land with clear

titles. By ‘own land’, it is implied ancestral land inherited from generation to generation and with clear title or land obtained through land reforms program with clear title. Hence, the tribal households access lands through other means, such as sharecropping, encroachment in forestlands. Besides, they also access forestlands, called ‘Dali’ lands. These lands are located in the forest area, but tribal people have been granted the rights to cultivate these lands from colonial times. However, they have not yet obtained clear titles to these lands. Another type of land is tenancy land. Tenancy lands are those lands, which the tribal people cultivate, either as tenants, or are in the process of obtaining rights, due to the land reforms legislations. Hence, land holding and access is of the following types:

(a) Sharecropping,
(b) Ancestral land or Land obtained due to Land Reforms (Own Lands)
(c) Tenancy Land, (land being cultivated as tenants)
(d) Encroached Land, and
(e) Dali Land.

A household may cultivate one or more type of these lands. We refer to each type of land accessed, or owned, and cultivated as a ‘Farm’. Based on this nomenclature, it is observed that (Table 45) among the 55 households in the sample, 4 households (7 per cent) do not cultivate any type of land. Among the remaining 51 households (93 per cent) cumulatively cultivated 84 different types of farms, across the seasons. The distribution of these farms is as follows: (a) 27 (49 per cent) households cultivated 27 (32 per cent) farms, these are households cultivating only one type of farm; (b) 16 households (29 per cent) cultivated 32 types of farms (38 per cent), these are households which cultivated two different types of farms; (c) 8 households (15 per cent) cultivated 25 types of farms (30 per cent), in this category 7 households cultivated three types of farm each, and one household cultivated four types of farms.

This data indicates that some tribal households are intensively engaged in agriculture as compared to the others, and they try to cultivate more than one type of farm. Field observations also suggest that the choice regarding the type of farm to cultivate is based on a number of factors such as location of the land, perceived and actual threat of eviction by the forest department, suitability of the land for crops, and other such social, economic, and environmental factors. Data in Table 46 shows that Hedoshi, Mahagaon, and Tareghar are three hamlets in which agriculture is a pre-dominant livelihood activity. In these three hamlets all the households do agriculture. All these three hamlets are located in the vicinity of the command area of two large dams, which provide canal irrigation. Hence, it is possible for the households in these hamlets to engage in cultivation, beyond the monsoon season, either on their own lands, or through sharecropping. Further, the data also shows that the households accessing land are distributed across the five types of farms (based on ownership criteria) mentioned above. No inference is being made about the other hamlets,

i.e. Wafeghar, Uddhar, and Arebudruk, since the number of households in the sample from these hamlets are very small.

Table 46 shows that, of the 84 farms being cultivated by the 51 households, 22 farms (26 per cent) are accessed through sharecropping, 15 are ancestral lands (18 per cent), 12 are tenancy lands (14 per cent), 13 are encroachments in forest (16 per cent), and 22 are 'Dali' lands (26 per cent). This shows that 'Dali', and Sharecropping are the two most accessed types of farms by the tribal households. Even though the tribal households, own, access, and cultivate land, it is observed that the size of the farms is very small. Data in Table 41 shows that 29 per cent of the farms are less than half an acre, and 35 per cent are less than one acre. 24 per cent lie in the range of one to two acre and only 13 per cent are greater than two acres. This shows that almost two thirds of the farms are less than one acre in size. The data also shows that small farms (less than one acre) account for 64 % of the total holdings. This shows that cultivation of small plots is pre-dominant in the agriculture among the tribal households due to restrained access of cultivable land.

As mentioned earlier, since land ownership through clear titles is a big problem among the tribal communities, this leads to both, land alienation, and low investment in land improvement. Data in Table 43 shows that of the 84 farms being cultivated by 51 households, only 25 farms (30 per cent) have clear titles. However, the tribal households do not own the majority (70 per cent) of the land being cultivated, in spite of many efforts and struggles to gain land ownership. Among the farms not having clear titles, there are three types of lands: sharecropping farms, the encroached forestlands, and 'Dali' lands. However, in nine responses it has been reported that the respondents have ownership to 'Dali' lands, and in six cases that they have ownership to tenancy land. This is because, the process of obtaining rights is underway, and the influence of the GrOs is such that, the households have tended to report that ownership has been obtained. The GrO leaders clarified this. Hence, if these cases are also excluded from the category of landowners, only 12 per cent of the households have their own land with clear titles.

This clearly shows that while on the one hand, the tribal communities are deprived of land ownership, and on the other hand they are forced to access land through various other means to produce their own food. Another important factor, which has to be considered, is the distance of the farm from the place of residence. If the farmlands are located far away from the residence, it becomes difficult to access, cultivate, and guard the farms. Data in Table 44 shows that most (70 per cent) of the farms are located at a distance of less than two kilometers from the place of residence. The farms, which are located at a distance of more than two kilometers, are either the 'Dali' farms, the forest encroachment farms, or the

sharecropping farms located in the command areas, especially in the plains. In such cases it is observed that households migrate temporarily to the farms (for six to seven days at a stretch), and stay on the farm itself especially during the periods of intensive agricultural operations such as sowing, harvesting, and guarding the crops from wild animals. This does entail considerable amount of hardship for the migrating households. However, this has not affected HRK data collection very adversely, at least in the monsoon period.

As mentioned earlier, 22 households engage in sharecropping. Of these 22, 8 households engage in only sharecropping. Ten do sharecropping in addition to cultivating other types of farms. Sharecropping is preferred in areas where the land is under the command of irrigation. Paddy is cultivated in summer in these lands. For the landowner, cultivating paddy twice a year, in monsoon and summer becomes labor intensive, whereas for the tribal people, this option provides both employment as well as food grains, without having to migrate to far off places for work. Data in Table 47 shows that most (63 per cent) of the households do sharecropping on the basis of receiving two-thirds of the produce. Though apparently, this appears to be positive, field observations and informal discussions with the tribal households indicates that the contract for engaging in sharecropping with the landowner is not secure. It is renewed every season, and there is no guarantee of securing the contract. If the landowner does not give his land for sharecropping, the tribal people are forced to work as laborers on these very farms for earning their livelihood. The hegemonic patterns of relationship in the form of a client-patron, or tenant-landlord are withering, and commercial considerations (mainly based on wages) are coming to play a larger role in the forming of economic relationships between the tribal people and landowners. However, the exploitative nature of the relationship continues, though the mobility of the tribal people has definitely increased. This could be further substantiated by the following observations, made by the GrO leaders:

(a) Earlier tribal people used to work for the same 'employer' or farmer, however, now they choose whom to work with.
(b) The share of the tribal in sharecropping has increased from one-third to one-half.
(c) Tribal persons now decide on the cropping pattern, nature and quantity of farm inputs.
(d) The tribal people now exercise the right to say 'no' to a particular farmer, if they find the terms of sharecropping or wages unfavorable, and choose to work elsewhere or migrate.

4.7.1.2 Cropping Pattern and Agriculture Inputs

The focus of the cultivation undertaken by the tribal households is two fold, either to cultivate food grains for self-consumption or cultivate produce for the market, especially vegetables. Food grains include fine cereals such as rice, and coarse grains such as millets commonly called as '*Nachani*' and '*Varai*'. As the data in Table 48 shows that the 51 households engaged in agriculture, reported 200 instances of cultivation of four different crop categories in one year, i.e., in three seasons, namely monsoon, winter, and summer, based on yearly recall. The data on cropping pattern (Table 48) has not been dis-aggregated by seasons. The four crop varieties are cereals, vegetables, pulses, and fruit trees. Vegetables include various varieties, such as tubers, cucurbits, fruit varieties, and leafy vegetables. Pulses include grams, and beans of various types, and fruit trees include mango, cashew, and jackfruit. Of the 200 instances of cultivation reported, 44 percent are cultivation of cereals, 26 percent vegetables, 21 percent pulses, and 11 percent fruit trees.

The distribution of the crops across all varieties, across the different farm types is almost even. However, it is seen that there is tendency to grow rice either on ancestral lands or sharecropping farms, because they are more fertile and suitable to rice cultivation. Millets are grown more on 'Dali' lands or sharecropping farms. Dali lands are located on hill slopes and are suitable for cultivation of coarse grains. It is also seen that to some extent coarse grains are grown on sharecropping farms. However, field observations suggest that these instances of sharecropping are of the nature of land leasing from tribal people to tribal people, rather than tribal people to non-tribal people. Vegetables were cultivated more either on sharecropping farms or on 'Dali' lands. Most of the vegetables produced are sold in the local markets and nearby towns. Fruit trees have been grown on Dali lands and Tenancy lands.

Seeds are an important input for agriculture. Data regarding the seeds inputs for rice as (Table 49) shows that of the 33 households reporting about their seed input, 26 households (79 per cent) have sourced the seed from their home stock. Only 7 households (21 per cent) have bought fresh seeds from the market. The average seed input per household is about 52 kilograms per season. However, it must not be concluded from this, that the seeds sourced from home stock are necessarily indigenous seeds. Most of the stock of the seeds being used are seeds of improved varieties. These seeds can be use for two to three generations, after which their productivity declines sharply. Hence, the 'home stock' referred to here, would include both, improved varieties as well as some seeds of indigenous varieties.

Data regarding the cash inputs for agriculture, in Table 50 shows that 18 households reported of having expended cash for purchase of fertilizers and seeds for vegetable cultivation. This is based on yearly recall. This data shows that on an average a household has spent Rs. 330 for fertilizers for rice, and Rs. 194 for fertilizers for vegetable plots. The expense for seeds for vegetables is approximately Rs. 100. Field observations show that in case of vegetables also much of seeds are sourced from the previous year's harvest, i.e., home stock.

Regarding irrigation facilities it is seen that (see Table 42), only 21 per cent of the farms have access to irrigation, whereas the rest 79 per cent are rain fed. Two thirds of the irrigated farms are either in sharecropping or on ancestral lands. This indicates that investment in irrigation is made only when clear titles to the lands are available. Dali lands do not have clear titles and therefore has very little (18 per cent) irrigation. Also Dali lands are located on hill slopes and in interior forest areas, thereby making it difficult to bring these lands under the command of irrigation. Regarding the source of irrigation it is observed that canal irrigation is the major source of irrigation (Table 51). This is because of the presence of two large dams in the study area. The local stream is also a source of irrigation, especially in the post monsoon period. However, field discussion suggests that the tradition of building local bunds on flow streams is eroding, though in some hamlets it is still being practiced.

The ploughing for rice is mainly done using the traditional wooden plough. Only 17 of the 51 households engaged in agriculture have ploughs. Other households borrow or hire it from their community members or members of the farming communities residing in the plains. Three households posses threshing machines used for threshing paddy (Table 52).

The above data regarding agricultural inputs, such as seeds, fertilizers, irrigation, and use of agricultural equipment shows that the agriculture being practiced by the tribal people has low inputs. The cash inputs, as well as the technological inputs are low. Since, the size of the holdings is also very small, and tenure being un-secure, the tribal people are hesitant to make large investments for improving land productivity. Besides, this the fact their agriculture produces very little surplus, as would be seen from the subsequent discussion, making profit and re-investing it in agriculture appears a very difficult proposition. Hence, this type of framing can be best described as low-input subsistence agriculture.

However, in spite of these limitations and the need to grow their own food grains, the above data also suggests that the tribal households are trying to expand their crop portfolio. The tribal people are now also cultivating pulses, vegetables, and fruit trees, which were being cultivated earlier only by the dominant non-tribal farming communities. This is a positive development and efforts need to be made to see how the agricultural productivity

can be increased. The struggles for obtaining secure land tenure will be strengthened if the earnings from agriculture can enable the tribal people to obtain a secure and sustainable livelihood. However, before we reach this conclusion let us examine the present status of labor inputs as well as the earning and livelihoods needs satisfaction from this important livelihood activity.

4.7.2 Work Done in Agriculture

As the discussion in the above paragraphs show, the nature of the agriculture being practiced by the tribal households is not technology intensive. In fact it is labor intensive. Data regarding the agricultural work done in the four months of the monsoon season (i.e., June to September) in the year 2003 collected using the HRK tool shows that in this period 40 households, of the 55 households constituting the sample, worked in their own farms. This implies that 15 household not cultivate in this season. Of these 15 households, 2 households have no access to land (as reported in the yearly recall survey) and 13 households, which had access to land, did not cultivate this season. Of these 13 households, which reported having access to land, and yet did not engage in agriculture this season, seven households access 'Dali land' (of which three households also cultivate encroached land and sharecropping), three cultivate sharecropping farms, two cultivate their ancestral lands, and one cultivates encroached land. This shows that cultivation on Dali lands is not being done consistently across all seasons, in all years. The same applies to sharecropping also.

Data regarding the (self) employment rates in own farm agricultural works (Table 29) shows that the percentage of employment per person in own farm agricultural work varies from 2 to 42 percent. 25 households (46 per cent) report less than 20 percent employment in this work, and 15 households (27 per cent) report employment rates greater than 20 percent. The average rate of employment in own farm agricultural work is 16 percent. Considering the wide variation (extremities) in data, if we consider the mid 30 cases (forming 54 percent of the sample), ranging from 5 to 26 percent, the average works out to 14 per cent.

The breakup of the workdays in own farm work, according to gender is presented in Table 31. This data shows that men contributed to 65 percent of the work done, whereas women contributed to 35 percent of the work done in terms of workdays. However, data regarding the hours of work (in Table 30 based on HRK data) shows that on an average men worked for eight hours a day, whereas women worked for six days. Since, women also do domestic work, their working hours on farm is less than men. Of the 104 persons who worked in this activity, 59 were men (56 per cent) and 45 were women (44 per cent). Data

regarding age-wise distribution of the workforce (Table 30) shows that of the 104 persons engaged in this activity, 13 are children, i.e. , persons below 18 years of age. Among the children it is mainly the daughter who is engaged in own farm work. The number of girl children working on own-farm is twice the number of male children.

GrO leaders observe that, such a sharp gender disparity in wage labor work does not reflect the fact that women are engaged in other type of cultivation activities, especially in cultivation of homestead lands. In the HRK questionnaire, in the query regarding farm work the reference was made to 'farm' and not homestead lands, and thus women were excluded. This observation clearly points out that women are involved in cultivation of small plots of land, not necessarily referred to as farms, but which produces considerable stock for home consumption, especially during the monsoon.

Besides these 104 persons, other members of the household, i.e., other than the three main workers accounted for in the HRK data and included in the statistics presented in Table 29-31 have also worked in agriculture. In some cases external workers have also worked on the farms of some tribal households. Data regarding the frequency of the occurrence of the engagement of external workers is presented in Table 32. This data shows that in 54 cases (7.5 per cent) external farm workers have been employed. Most of these are the kith and kin of the household cultivating the lands. These external members usually work on ‘mutual exchange of labor’ basis, within the members of the hamlet or among the members of the extended families, who may be residing in neighboring hamlets.

The hamlet wise data regarding own-farm agricultural work (in Table 31) shows that this activity contributed substantially to the overall portfolio of livelihood activities in Hedoshi, Phansidand, and Mahagaon, whereas engagement in this activity was nil in Khandad, and marginal in Ambeghar, and Tareghar. This shows that while households in some hamlets opt to engage in agriculture, households in some hamlets opt for other livelihood activities such as wage labor or forest collection. This implies that location factors influence the choice of livelihood activities. These location factors include the status and type of natural resources surrounding the hamlets. While in some hamlets the surrounding lands are suitable for agriculture, and also irrigation is available, in some hamlets, either the lands are degraded, or have steep slopes, hence making the practice of agriculture difficult in these hamlets. Also some hamlets are located close to urban- industrial hub and hence these households have more access to non-farm wage labor.

Data regarding the type of work done in own-farm agriculture in Table 33 shows that the major agricultural work in this season consists of guarding the farms (mostly vegetable plots) from the attack of wild animals, and also watering the crops. Since paddy is cultivated

in this season other important agricultural works in this season includes ploughing, sowing, and transplanting rice seedlings. Building of fencing is also major work, especially for vegetable plots.

Data regarding the agricultural work in winter (94) shows that men from only from five out of 15 households comprising the sample for data collection using the HRK tool in winter were involved in work on their own farms. Of these the work done by one household is negligible (1 day). Hence effectively only four households were involved on own-farm work (agriculture). These persons have worked full time (7 to 10 hours) on their farms. The percentage of employment provided by own-farm work 14 percent to 44 percent among these four households. Hence for these households agriculture is a major livelihood activity. However, if we consider the total data-days of all the 15 households (i.e. 1365 days = 91 days per household X 15 households) the number of work days spent on own farm activity by the five households add up to only 112 days, i.e. 8 percent. Thus in winter, the work on own farm does not contribute much towards employment for the households. In winter as far as men are concerned, only the heads of households worked on their own farms, while the sons did not. Two of the 15 households have women as their head. They have not worked on their own farms (95). In winter, the major part of work on own farm, consisted of watering the farms and guarding them from wild animals. Apart from that, fencing and threshing took up a small amount of time (96).

The above discussion indicates that work in agriculture on one's own farm provides substantially to the employment of a majority of the households studied. However, easy entry into, and exit from this activity is also evident. Since, many households cultivate 'Dali' or encroached land, they may choose to keep the lands fallow in a particular season. Also a substantial number of households engage in sharecropping. In this case too entry and exit is decided on a seasonal basis. This shows that since the tribal households do not have secure land tenure, agriculture is a dynamic activity, and various factors influence their engagement in this activity. Spatial factors and the status of the natural resources in the vicinity of the hamlets, and access to irrigation are two important factors in the choice of engaging in this activity. This dynamic nature of agriculture implies that for most households their livelihoods are not completely dependent on agriculture. Men and women are both engaged in this activity. Rice and millet cultivation is quite labor intensive, and often households exchange labor mutually among the community members and in the kin. Agricultural work involves different type of work, which changes depending upon the nature of the land cultivated and crops cultivated. GrO leaders confirmed these general observations made during discussions in the field with members of the respondent households.

In case of wage labor work the total number of persons involved was 97. This shows that own farm agricultural work employed marginally more number of persons (7 persons) than wage labor, though the rate of employment was marginally less in this activity, i.e., and average of 16 percent (or 14 percent) as compared to 19 percent (or 15 percent) in wage labor.

4.7.3 Earnings from Agriculture

The primary earning from agriculture is food grains. A few households also earn cash by selling agricultural produce, which mainly consists of vegetables and in a few cases surplus grains. Data regarding agricultural production of cereals presented in Table 34 and 35 (based on yearly recall) shows that 11 households (20 per cent) have report not producing any food grains. Of these 11 households, 7 households did not cultivate in the monsoon of 2003, for which period data was collected using the HRK tool. The production of grains was reported in the local unit of measurement, i.e., '*ma'n*' and '*kha'ndi*'. One *ma'n* is approximately equivalent to 40 kilograms. Hence we have used this factor for conversion from *ma'n* to kilograms. One *kha'ndi* is equal to 20 *ma'n* or 800 kilograms. As per the reported data 55 households cumulatively produced 30,440 kilograms of rice and millet. Millets consists of two varieties, '*nachani*', and '*varai*'.

If we consider 800 kilograms of cereals as an adequate level of stock to ensure food security for a year, then the data in Table 34 shows that, eight households (15 per cent) report producing less than 200 kilograms of grains, or one fourth the food security level, 14 households (26 per cent) produce between 200 to 400 kilograms of grains, i.e., less than half the food security level, 10 households (18 per cent) produce 400 to 800 kilograms of grains, 9 households (16 per cent) produce between 800 to 1600 kilograms of grains, and 3 households (5 per cent) produce more than 1200 kilograms of grains[2]. This implies that only 12 households or 21 per cent of the households have achieved food security through self-cultivation. The average production per household is only 553 kilograms, i.e., approximately 70 per cent of the food security level. Of these three households produced considerable surplus for sale. Hamlet wise analysis of food grains production (Table 35) shows that the contribution of only one hamlet, i.e., Hedoshi to the total production is 57 per cent. This shows that as discussed earlier, the households in Hedoshi are more dependent on agriculture for their livelihoods, since they are well endowed with land and water resources.

[2] The assumption about adequacy of cereals is made on observations from the field may differ in different areas and for different type of cereals.

Data regarding sufficiency of food grains (which could be considered as another dimension of food security) is presented in Table 36. This data shows that rice suffices for 10 to 12 months of a year for only 35 percent of the households. 38 percent of the households report that they earn negligible amounts or nothing from agriculture in terms of grains. For the remaining 27 percent rice suffices for less than 8 months of a year. In the past few decades' millet production has drastically reduced[3]. Millet (*Nachani*) suffices for a year for only 22 percent of the households, and another type of millet (*Varai*) suffices for a year for only 15 percent of the households. This shows the extent of food insecurity in these households. Data also shows that millets form only 15 per cent of the total grains produced. Hence, from food security point of view availability of rice is important.

Households wise data regarding the sale of cereals (Table 37) shows that 17 households (31 per cent) do not sell any grains, and 32 households (58 per cent) sell a small amount of less than 20 kilograms. Hence, practically 87 per cent of the households do not produce any surplus. Five households sell between 80 to 450 kilograms of grains. Only one household has sold 2800 kilograms of rice. Hamlet wise analysis of the data (Table 38) shows that the surplus-producing households are from Hedoshi, and one household (number 34) contributed to 69 per cent of the total grains sold. Hence, practically, it can be concluded that the tribal households not only do not earn cash from sale of surplus cereal production, but are also not food secure.

Household wise analysis of income from sale of agricultural produce (Table 39) shows that 38 households (69 per cent) do not earn any cash income from agriculture. Three households earn less than Rs. 1000. Eight households earn between Rs. 1500 to Rs. 5000, and three households earn between Rs. 5000 to Rs. 7000. Together this constitutes 20 per cent of the sample. Three households earn between Rs. 11,500 to Rs. 31000, forming a small fraction, i.e. five per cent of the sample. Further analysis, commodity wise shows that 79 per cent of the cash income from agriculture is obtained by sale of vegetables. 13 households (24 per cent) are engaged in vegetable cultivation. If we consider Rs. 2000 as significant cash input into the livelihoods system of the tribal households that data shows that 12 households (two from Ambeghar, two from Tareghar, and eight from Hedoshi) earned more than this amount, from agriculture. Hamlet wise analysis of income from

[3] This observation is based on another study conducted by the ReLi group in Sindhudurg district of the Konkan region, where as similar cropping pattern exists, in 2001.

agricultural produce shows (Table 40) that Hedoshi is the only hamlet, in which households earn a high level of cash income from agriculture, i.e., an average of about Rs. 9825 per household.

The above discussion regarding the output obtained from agricultural work on own-farm shows that the tribal households in the area under study do not produce much food grains or other agricultural commodities. Though, the data presented here is for a small sample of 55 households, the inferences drawn from the analysis of this data concur with the observations about the conditions of the vast majority of the tribal people, made by the GrO leaders. Though the tribal people try to access land with great difficulty, and invest their labor in cultivating it, the output does not appear to be consumer ate with the work put in, or with the risk involved in the process of accessing land through encroachment or sharecropping in a social situation in which they are dis-empowered, and the economic contracts they try to enter, are exploitative in nature, leading to their deprivation.

4.8 Role of Animal Husbandry, and Forest Collection, and Fishing in the Tribal Livelihoods

The discussion above clearly shows that a combination of wage labor and own-farm agriculture forms the mainstay of the livelihoods of the tribal households. However, other activities such as rearing animals, collection of forest produce, and fishing also play a significant role in the livelihoods of the tribal people. Though, these activities may not lead to substantial employment, or earnings, especially in terms of cash, they serve to fulfill crucial livelihood needs such as fuel wood, food, and provision of draught animals. The role of these activities in the lives of the tribal households as seen from the data of the 55 households in the study sample is presented below.

4.8.1 Animal Husbandry

Data in Table 57 shows that 32 households (58 per cent) report of having engaged in animal husbandry in the yearly recall data. The table also shows that Hedoshi, and Mahagaon, two hamlets, in which the households are agriculturally inclined also report of having comparatively more number of households (57 and 67 per cent respectively) engaged in animal husbandry. Data regarding the inventory of livestock as reported in the yearly recall survey presented in Table 58 shows that, not only do the tribal households own livestock, but they also adopt livestock, both cattle and goats, of other farmers and raise them. In return for this service they are either offered one to two pieces of cattle as remuneration, or they are offered bullocks for ploughing by the land-owing farmers. These

observations have been recorded in the informal discussions during the survey. Data regarding goats, which form bulk of the browsing animals, shows that of the 61 animals maintained by the 32 households, three were purchased, nine were born, and seven died, in the course of one year. 30 goats (i.e. about 50 per cent of total population) were not owned but maintained by the households engaged in animal husbandry. In case of cattle (cows and bulls), it is observed that eight were raised and they formed 28 percent of total cattle population of 29 among the animal-husbandry households. The population of milch animals, especially buffaloes was only eight. Field observations show that the tribal households traditionally do not milk the cows. The buffaloes owned have been mainly obtained through government schemes, and only recently have they begun milking these animals. The primary purpose of maintaining the cattle is to obtain bullocks for ploughing the lands. In case of poultry it is observed that the total population was 93. Of these 75 pieces (81 per cent of the terminal population) died during the course of one year, and 43 chicks were born, i.e., 46 per cent of the terminal population at the end of one year. Only three chicks were purchased. This shows the high rate of mortality among the poultry. Poultry is reared in the backyards of the tribal houses. They mainly feed on household waste.

Regarding the quantity of work involved in animal husbandry, the data of the work days in this activity, household wise is shown is Table 53. The data in this table shows that in terms of employment rate per person working in this activity (employment rate, as shown in other activities is the ratio, expressed as percentage, of the total number of days worked by the household, divided by number of persons in household working in this activity, divided by number of data days of that household) ranges from 4 to 78 percent. However, this data shows that only 25 households were engaged in animal husbandry. The hamlet wise data presented in Table 54 shows that Mahagoan and Ambeghar are two hamlets where the contribution of this activity to the livelihoods activity portfolio is high. However, the data regarding working hours shows that the average hours of work per day per person is only 0.5. There could be cases where the household members may have engaged in a full day's work of for animal husbandry. However, when normalized across all the days spent in this activity, the data shows that very little time is spent on this activity. This implies that this activity does not provide full employment. Hence, the employment rates of this activity are not comparable with that of wage labor, or own-farm agriculture. The gender-wise breakup of the work data in this activity shows (Table 55) that of the 52 persons engaged in this activity, men did 53 percent of the work, and 47 percent of the work was done by women. In case of wage labor the share of women in the total work done is 32 percent, and in case of own-farm work it is 35 percent. This implies that the women are involved in animal husbandry to a greater extent as compared to wage labor, or own-farm agricultural work. Since the animal husbandry is not a full-time work, it is amenable to women, whereas the wage labor work

involves eight or more than eight hours of work and is male dominated. Within the household, it is seen that it is the son, wife, and daughter who contribute substantially to this activity. Data regarding the age-wise distribution of the workforce engaged in this activity shows that of the total of 52 persons engaged in this activity, ten are children of which two are boys, and eight are girls. Here also, as in other activities, higher incidence of girl child labor is seen as compared to boy child labor.

In winter the pattern of work done in animal husbandry is similar to that in monsoon. Only 3 households (20 percent) of the 15 households in the sample engage in this activity. The total days of engagement in this activity are 12, 54 and 63, out of 91 days. The time spent per day per person ranges between 2.5 and 10 hours. Among men, only the heads of the households are engaged in this activity, whereas among the women mothers and wives bear the major part of the burden, the share of daughters being only a small one (refer Table 100 and 101). Two children are reported to have been working in this activity.

Though, the above data shows that animal husbandry activity contributes very little to the work portfolio of the tribal households, data regarding income from sale of animals, shows that in some households, the cash earning from sale of animals is quite substantial. Data in Table 56, based on yearly recall, shows that nine households earned cash income from sale of animals in the one year (of Monsoon of 2002 to Summer of 2003). One household in Dhawate earned Rs. 8000 from sale of goats, and two households in Ambeghar earned Rs. 3000. These two households also earned Rs. 2000 from sale of poultry. On an average nine households earned approximately Rs. 1800 from sale of animals. Five households have reported the production of 51 eggs in the four-month period of monsoon 2003. This show that some households take interest in animal rearing, and also in these households the contribution of animals for satisfaction of livelihood needs is considerable. Field observations suggest that in spite of rearing the animals in-house consumption of meat is almost negligible. The tribal households prefer to earn cash by selling the animals, and look upon the animals as a reserve for emergency situations.

4.8.2 Forest Collection and Fishing

Forest is a primary resource for the tribal people. Forest products contribute to the satisfactions of various livelihood needs such as fuel wood, timber of house construction, vegetables, and medicinal herbs. However, the forests are also a theatre of conflict and tension. While the government forest department tries to ‘protect’ the forest by restricting the access to the forest of the tribal people. However, the tribal people are forced to go into the forest for collecting various items. In some cases tribal households collection and sale of fuel wood often this is the lone source of income in the lean summer seasons when other

sources of work is not available. However, often the forest guards intercept the tribal people and intimidate and harass them. The conflict between the government forest department and the tribal people has been a widely discussed and documented. In this study the respondents were queried regarding their relationship with the forest guards. Of the 19 respondent households (35 per cent of the total sample) the data in Table 67 shows that 42 per cent reported to have given bribe in the form of cash. 16 per cent gave food, (which usually includes meat), 11 percent gave forest produce, and 16 per cent gave liquor. 11 percent reported that though they did not give bribe they faced bad mouthing from the forest guards. This data shows that cash is seen to be the preferred form of bribe. This also shows that tribal people have to face considerable hardship in accessing the forest. However, the field observations suggest that with the growing influence of the grassroots organization of the tribal people, the harassment meted by the forest guards has reduced. Regarding the possession of equipment to collect forest produce, mainly for hunting and fishing, data in Table 66 shows that 14 households posses fishing equipment. 8 households possess hunting equipment. Together they constitute 40 percent of the sample households. This shows that hunting and fishing continues to be a significant livelihood activity. The details regarding the workdays expended in this activity and outputs obtained are discussed below.

The data in the Table 59 shows that all the 55 households are engaged in forest collection. However, the degree of engagement varies to a large extent. In terms of number of days of work, the employment rate per person varies from 1 to 31 percent, the average being nine percent. The primary reason for all the households accessing forest is for collection of fuel wood. Field observations shows that the tribal people stock fuel wood for the monsoon months in the summer season. They collect wild vegetables, herbs, and other minor forest produce from the forest. Hamlet wise data in Table 60 shows that forest collection activity is comparatively higher in Phansidand, and Khandad, based on the comparison of employment percentage per household. However, since the number of persons engaged in this activity vary across households, and so does the number of hours worked, the data for hours worked was also collected using the HRK tool for the period Monsoon 2003. This data is shown in Table 62. This data shows that on an average a person spends only 0.5 hours per day per persons in forest collection work. This implies, that forest collection, like animal husbandry does not provide full work of eight hours. There could be cases where the household members may have engaged in a full day's work of collecting forest produce. However, when normalized across all the days spent in this activity, the data shows that very little time is spent on this activity.

The gender wise break-up of workdays is presented in data Table 61. This data shows that men contributed 49 percent of the work done in this activity (in term of number of

workdays) and women contributed 51 percent. Here again, as is the case with animal husbandry, the data shows that female participation is higher as compared to wage labor (32 per cent) and own-farm agriculture (35 per cent). The reason for this is similar to that discussed in case of animal husbandry. Within the household it is seen that the male head of the household, and the wife contribute substantially in this activity, as against the son and daughter who were more involved in animal husbandry.

Data regarding the age-wise distribution of the work force (Table 61) shows that of the 129 persons engaged in this activity 107 persons are adults and 22 are children. Of these 22 children, eight are boys, whereas 14 are girls. This shows that considerable number of children, more so girls are involved in the work of gathering, especially fuel wood. Besides the above data obtained from HRK, the respondents were also asked specifically about the participation of household members in this activity in the one-time survey, based on yearly recall. The data obtained from this query, presented in Table 65 shows that, 97 responses were obtained. One response is one 'case' of participation by 'a' family member in this activity. This data shows that women older women, and young girls, together contribute to 63 percent of the work and men contribute only 37 percent. The percentage of women in each age group is observed to be more than men in this activity. Percentage of young girls involvement is almost 4 times to that of young boys. Most of the work done by women involves collection of fuel wood.

The percentage of days spent by each person who participated in 'fishing, hunting and forest collection' in winter varies greatly, from 4 percent to 31 percent (Table 97). 32 persons (22 adults and 10 children) participated in this activity from among all the 15 households in winter. Besides these persons appearing regularly in the HRK data collection, eight households have reported that other members of the household were also involved in this activity. However the average number of hours spent per day on this activity is only about 3.1 hours. Data in Table 99 shows that of the male members the head of the households and sons were involved in this activity. Among the women, wife, women head of the households, and daughters has been involved in this activity.

Besides fuel wood collection, forest collection includes collecting food items such as seasonal fruits, (like cashew nuts, mango, berries) vegetables, fish, crab, meat from hunting, wood for house construction, and other tree products likes leaves, flowers, and medicinal herbs. The number of days expended on forest collection product-wise is shown in Table 63. This data is for the monsoon period of the year 2003. The data shows that 44 per cent of the days have been spent in fishing, followed by 25 per cent in fuel wood collection. The total number of days in this table is 1368. This is 96 days more than the days recorded in Table 59, 60, and 61. This is because in these three tables the work done only by three 'main'

members of the family has been accounted for whose names appear in the HRK data. In case of the data in Table 44 (i.e. 1368 days) the contribution of all members of the household including those not accounted for in the HRK data has been considered.

Data in Table 98 for the winter season shows that the maximum numbers of days (about 75 percent of the total) are spent in collecting fuel wood, followed by food (23 percent), which mainly consists of fish, meat from hunting, and wild herbs and tubers. Note: The difference in the total workdays in Table 98 and Table 97 because sometimes even though the household members go to collect forest produce or hunt the possibility remains that he or she does not get anything. Such days are not reflected in the data in Table 98 and if compare the data in the two tables it is seen that on 16 days the household members could not get anything from the forest in spite of going to the forest during the recording period in winter.

The main products collected from forest for sale are fuel wood, vegetables, fruits, and fish. Some households have earned cash income by sale of such forest produce. This data based on yearly recall and is presented in Table 64. This data shows that 24 households (43 per cent of the sample) sold fuel wood, and earned about 51,000 rupees, the average income being Rs. 2125.00. Six households sold vegetables and earned Rs. 800, the average income being Rs.133.00. Five households sold fruits and earned approximately Rs. 6000. Their average income is Rs. 300.00. Nine households sold fish, and earned an income of Rs. 13740. Their average income is Rs. 1526. However, of these nine households, the share of three households from Khandad was 75 percent. The total numbers of households earning cash from sale of forest produce were 32. The total cash income in one year was reported as Rs. 71,783. This implies that the average earning is Rs. 2243, though the range varies sharply, from a minimum of Rs. 60 to a maximum of Rs. 9600. Of these 32 households 23 households (42 per cent of the sample) earned Rs. 1000 or more from sale of forest produce, in one year. This implies that some households especially in hamlets such as Hedoshi, Ambeghar, Tareghar (6 households in each hamlet) depend on forest not only for their own consumption needs, but also as a source of cash income. Thus, the above data shows the significant contribution of forest resources in the livelihoods of the marginalized tribal population. One of the limitations of this study has been that it has not been able to quantify the amount of forest produce. Both the quantity and quality of the forest produce are important aspects that need to be considered and could possibly be explored in detail greater at a later stage.

4.9 Income from Sale of Produce and Purchase, Barter and Borrowing

4.9.1 Income from Sale of Various Natural Resource Based Products

Sales of farm products, animal products, forest collection products, and liquor offer sources of cash income for the tribal households. Though the data regarding this has been discussed in the sub-section analyzing the various livelihood activities of the tribal households, data on daily basis regarding income from sale of products was collected using the HRK tool. This data is presented in Table 73 and Table 74. This data shows that in the four-month period (18 weeks) of the monsoon of 2003, 55 households reported 284 cases of sales. Of these, 47 percent of the cases were sale of food products either collected from the forest, or produced on farms. However, since, the harvest was yet to be completed, most of the products sold were collected from the forest. This was followed by sale of fish, which is found in plenty in the monsoon season. Sale of liquor also forms a major source of cash income for four households. The total cash income in this season from sales varied from Rs. 20 to Rs. 4590. This shows, that as seen in the earlier discussion, there is a large diversity in the livelihoods of the households in the sample, and the tribal people in general. Ten households (18 per cent) did not earn any income from sale of products. Eight households (15 per cent) earned less than Rs. 100, and an equal number earned between Rs. 300 to Rs. 600. Nine households (16 per cent) earned an income ranging from Rs. 600 to Rs. 1000. Ten households (18 per cent) earned an income ranging from rupees thousand to two thousand, and an equal number earned more than rupees two thousand. If rupees thousand is viewed as a significant income in the overall cash income of the tribal households, the 36 percent or about two thirds of the households earned cash by selling produce from different natural resources, except in case of sale of liquor. However, brewing liquor consumes a considerable amount of fuel wood, which is collected from the forest. Hence, this shows that tribal households do depend on the surrounding natural resources to a considerable extent not only for satisfying their direct consumption needs, but also for producing or collecting products for sale in the local markets to earn cash. The hamlet wise break-up of the sales data presented in Table 74 shows that sale of forest products is comparatively more in Hedoshi and Ambeghar. Sale of fish is reported from Khandad, and Pahansidand. Both these hamlets are located close of major rivers, which provides abundant fishes. Households in Tareghar, sell tree products, which mainly consists of fuel wood. Liquor is produced and sold in Khandad and Arebudruk. The average cash income of 45 households engaged in sale of products is Rs. 1300 for the four-month period of monsoon 2003.

Data regarding cash income from sale of produce in winter season (Table 104) shows that of the 15 households in the sample only seven households earned a significant

amount (i.e., above Rs. 1000) from this source. Of these three households are from Khandad and three from Hedoshi. Data regarding the type of products sold (Table 105) shows that the major products sold were food grains and liquor. Cash earning from sale of liquor is reported in Khandad and from sale of food grains from Hedoshi. Data regarding other livelihood activities and also of the monsoon season support this observation that whereas Hedoshi, which is located in the interior, and households own land, are engaged in agriculture, thereby produce surplus for sale. Where as in case of Khandad the hamlet is located close to the town of Mangaon, the households do not own land, and therefore resort to liquor production as one of their major livelihood activity. Income from sale of food grains has been reported in winter season because the crops are harvested in this season following the monsoon. Data regarding the frequency of sales shows that where as food grains are sold fewer numbers of times (two percent of the total responses regarding number of times items sold), liquor is sold more frequently (seven percent of the total responses regarding number of times items sold). Some cash is earned by households in Khandad by selling fish due to occurrence of a big perennial river near their hamlet.

4.9.2 Consumption Expenditure, Barter, and Borrowing Pattern

Data regarding consumption expenditure is often considered as a prime indicator of income poverty. In this study, this data was collected on daily basis using the HRK tool. Based on the reporting of the daily expenditure for the four-month period, of June to September 2003, the monthly per capita expenditure of the 55 households in the study was computed. This was done in the following manner:

Step 1: The total number of children in the household was divided by two, assuming that two children are equivalent to one adult. This was added to the number of adults in the household, and thus, the effective number of adults in the household was computed, for each household.

Step 2: The total cash expenditure for the four-month period of each household was divided by the respective data-days of that household to arrive at expenditure per household per day.

Step 3: The figure obtained in Step 2 was divided by the number of effective adults in the household as obtained in Step 1. This provided the expenditure per adult person per day.

Step 4: This figure (obtained in Step 3) was multiplied by 30 (i.e., the average number of days in month) to arrive at the final figure of the Monthly Per Capita Expenditure (MPCE) for each household.

The MPCE of the each household is shown in Table 68. This data shows that the MPCE ranges from Rs. 7 to Rs. 368. The case of household number 75 in Mahagaon whose

MPCE is Rs. 890 is not a typical case, because this household owns a shop, and purchases made for the shop have also been recorded in this data. The average of the 54 households is Rs. 123. The average MPCE multiplied by the average effective number of adults in a household (4.37) yields and average monthly household expenditure of Rs. 537.00. This indicates the extreme levels of poverty among the households in the study, and the tribal people in general. The data also shows that of this amount, on an average 65 percent is spent on purchase of food. Food includes, both raw food, such as grains and vegetables, and also purchase of cooked food such as sweets and eating out in restaurants. The proportion of the expenses on food ranges from nil (which indicates, completely sourcing food items from one's own farm) to 96 percent (which indicates all most complete reliance on the market). As was mentioned in section 5.4 five households among the small sample earned substantial part of their income from job. This would be reflected in their level of expenditure. However, the MPCE of household number 64, and 29 is Rs. 47 and 65 respectively. The male head of the households in both these households are peons in Government service. However, their MPCE is not substantially high as compared to other households dependent on wage labor or agriculture. The MPCE of household number 90 and 88 is Rs. 127, and Rs. 181 respectively. The head of the household in the household number 90 is a mason, whereas in case of household number 88 the male member works in a grocery shop. However, there are many other households having MPCE substantially higher than job holders or self employed persons. This shows that even though some households are engaged in non-wage or non-agricultural activities their cash income is not substantially higher than the former. This implies that even when tribal people are involved in non-traditional work, they are still only at the fringe.

Data regarding the frequency of expenditure on different items was also recorded. This data presented in Table 69 shows that of the 723 cases recorded, 56 percent were purchase of food items and ready food items. The next major expenditure item in non-food consumables are items such as clothes, slippers, kerosene, umbrella, battery cells, traveling expenses, and service charges paid for services (such as barber, tailor, carpenter, cobbler, etc.). The frequency of expenditure on *Pan-Tobacco* and liquor is eight percent. Capital items include purchase of black jaggery and other inputs for liquor brewing, and purchase of goods for sale in the grocery shop. The frequency of the purchase of capital items is eight percent. The frequency of expenditure on medical expenses was only one percent, and on education nil.

The hamlet-wise break-up of the MPCE data (Table 70) shows that, among the hamlets which can be compared (due to substantial sample size, i.e., at least five households or more), Hedoshi is the lowest with an MPCE of 90, followed by Tareghar (Rs.

108). Both Ambeghar and Mahagaon have higher MPCE of Rs. 166 and Rs. 210 respectively. Though Tareghar and Khandad are both located close to towns, the MPCE in Khandad is much higher, because liquor is made in this hamlet and the items purchased for liquor making has also been considered in the data on household expenditure. Therefore the expenditure data has to be viewed carefully.

Data regarding cash expenditure in the winter season (Table 102) shows that the item of expenditure was 'food items' (70 percent), which includes 'ready food'. The expenditure on non-food consumables and capital expenditure is 30 percent. No expenditure on liquor has been reported. There is a small percentage of expenditure on *pan*-tobacco (1 percent), education (2 percent) and medical aid (1 percent). The percent expenditure on capital items (6 percent) is comparable with that in monsoon (8 percent). The MPCE ranges from Rs. 44 to Rs. 478 during this period, the average being Rs. 177. The average number of effective adults for this sample of 15 households is 3.8 per household. Table 103 shows the frequency distribution of the major items purchased. This data also shows that food items form the major portion (47 percent of the total no of reported cases – where in one case is one week per household) of the purchases, followed by no-purchases (25 percent) and non-food consumables (16 percent).

Low levels of cash income reflected in low MPCE does not necessarily imply absolute deprivation, because the household may be earning goods in kind, especially in the form of self-grown stock. The low level of MPCE only confirms, the extremely low degree of monetisation of earning among these households. However, it also needs to be qualified here, that this data is for only one season, i.e., four months of a year. Further attempts could be made to monetize the in-kind earnings using some price indicators. However, this would involve statistical complications, as well as opening up a debate, about the choice of the most appropriate indicator, and such other issues. Hence, this study has avoided computing money equivalent of in-kind earnings, and finds it more appropriate to compare the in-kind earnings in the same units as reported across the households. This would give a better perspective of the role of these goods in the overall livelihoods of the households, and also enable comparison of households in appropriate context of the production/collection and availability of that particular good, directly from the local natural resource base, rather than its value being imputed through assumed conditions about market exchanges.

The tribal households also resort to barter and borrowing to fulfill their daily needs. Data regarding the occurrence of barter (Table 71) shows that of the 12 cases (each case being one ‘household-week’, i.e. occurring in one week in one household) of barter were reported. Of these ten involved exchanging grain for grain. This shows that when in need the

households borrow grain from each other and later return this, usually in the same form. Exchanging other items like fish or meat for grains is also observed. Similarly the data in Table 72 regarding borrowing shows that of 41 cases (each case is same as above described) of borrowing was reported. 30 cases (73 per cent) involved borrowing of food items. Only eight cases (20 per cent) are related to borrowing of cash. Three cases (7 per cent) involve borrowing other non-food, non-cash items.

Thus, the data regarding cash income earned from sales of various natural resources-based products shows that a large section of the tribal population are still dependent substantially on the natural resources for fulfillment of both, their food as well as cash needs. The data regarding the expenditure pattern shows that though two thirds of the cash expenditure is spent on food, the tribal households are also spending on other non-food items. It is also observed that households, which report higher cash expenditure, also report that a greater portion of this expenditure is on food. These are usually households, which are more dependent on wage labor, and purchase food from the market. The low spending households, usually source food either from farm or forest, and spend little money on other items. Hence, this data for the monsoon of 2003 shows that both the types of households are present in the sample. Field observations suggest that this is also true for the population.

4.10 Access to Basic Amenities and Social Support

4.10.1 Health

Availability of medical services for safe childbirth is seen as a major indicator of the access to medical services. The data in this study (Table 75) shows that of the 66 responses obtained regarding access to medical services for child birth, 38 percent of the responses indicate that the *dai* (a trained mid-wife) is the source of help in child birth. 36 percent of the responses show that the tribal households rely mainly on elderly women from the hamlet. 20 percent of the responses indicate that such an elderly women could be from the near-by hamlet also. Services of private doctors, or government doctors and nurses are rarely sought.

4.10.2 Drinking Water

Data in Table 76 shows that of the 55 households in the sample 41 households (75 per cent) fetch water twice in a day. This is because some tribes believe in consuming only freshly fetched water. Also in some households they do not have the means to store large

quantity of water. Also for the women who fetch water, the laborious work is divided in the day making it easier to fetch water.

4.10.3 Possession of Ration Cards

'Ration Cards' issued by the Government, provide the means to purchase subsidized food grains from designated shops. Possession of ration cards is an important resource for poor households. Of the 55 households in the sample 47 households (85 per cent) possess the ration cards (Table 77). Of 47 households possessing ration cards, 10 households (18 per cent of the total sample) are above poverty line (APL), while 37 households (67 per cent) belong to the below poverty line (BPL) category. In Mahagaon, Arebudruk, Tareghar, Ambeghar, Wafeghar almost all the Households in the sample have BPL cards. The maximum numbers of households above poverty line are located in Hedoshi, where people possess lands and are engaged in cultivation of food grains and vegetables.

4.10.4 Access to and Benefit From Government Poverty Alleviation Schemes

Data regarding access of government schemes (Table 78) shows that forty percent of the households did not access any schemes or did not respond to the query. Of the 33 households who accessed the schemes 14 households (i.e., 25.5 percent of the total sample) got the benefit of goatary schemes, i.e., they received goats for rearing, financed by the government. Ten households (18 per cent of the sample) got the benefit of the housing scheme (Indira Awas Yojana – I.A.Y.). One household each benefited from receiving seeds, an electric motor, a pair of bullocks, and, biogas equipment.

4.10.5 Access to Rural Credit

21 households (38 per cent) from the sample of 55 households have accessed credit from different sources. These sources include (Table 79) bank (38 per cent of the loan seekers), moneylender and other rich persons (47 per cent of loan seekers), and one household each (5 percent each) from village fund, relatives and self help group respectively. This shows that major source of credit still remains the moneylender and other rich farmers. The major purpose for which credit was taken (refer Table 79) includes (a) agriculture (24 per cent of the loan seekers), (b) wedding and purchase of assets (14 per cent each), (c) illness (9 per cent), (d) business and food purchase (5 per cent each), and (e) other purposes (29 per cent). This shows that credit is accessed for a wide variety of purposes, but most of them are consumptive in nature.

4.10.6 Housing Conditions and House Repair

Data regarding the housing conditions of the sample households in presented in Table 80 to 88. Regarding the location of the houses it is sent that 47 percent are located in plains, 24 per cent are located on a hill top, 20 percent are situated on slopes, and 9 percent of the households are situated on undulating slope.

This data shows that of the 55 households in the sample, 26 Households, (42 per cent) live in *Kaccha* (not durable) houses and 29 households (53 per cent) live *Pucca* (durable) house. The former are houses made of mud and other natural material such as small timber and grass, which, are not very durable and need continuous replacement, while the latter are houses made of more durable material. Regarding the area of the houses it is seen that 47 per cent of the households have less than 300 square feet of area. 45 per cent of the households have an area of 300 to 500 square feet. Only seven per cent of the houses have an area of 500 to 700 square feet. This shows that most houses are small made of a single room. But they have extensions, such as verandah, and also cattle shed. 78 per cent of the houses have roof made of baked earthen tiles, while 22 percent have grass and tin sheets as the material for the roof (11 per cent each respectively). In substantial number (42 per cent) of the households use mud and grass or small timber is as construction material for wall, in case of 15 per cent of houses bricks and mud (or clay) is used, 25 per cent of the houses have brick walls with cement lining, and 18 per cent of the houses have wall made of bricks with complete cement plaster.

In 64 per cent of the houses there is no loft. 31 per cent of the houses have a loft made of wood and in five percent of the houses it is made of bamboo. 50 households have floor made of mud and cow dung plaster, three households have floor made of cement plaster and two households have floor made of cement tiles. Majority of the houses (89 per cent) have no fence where as 11 per cent have fencing made of cactus.

All the features of the house such as floor area, construction material for wall, type of flooring, loft, and fencing indicate that the living conditions of majority of the household is poor. In rural areas generally it is observed that despite of being poor, due to availability of land houses of the poor are quite spacious. However this study slows that the tribal people being marginalized even within the rural society live in poor conditions. 93 per cent of the households have less than 500 square feet of floor area.

Out of 55 households only 24 households (44 per cent) have made some kind of house repairs and spent money on the same. Of these 24 households, 13 households have repaired the roof, six households have repaired roof and walls, and four households have

constructed a new house in a year's period prior to the reporting period. For repairing the roof the type of a work done involved replacing the grass, earthen tiles, and replacing or repairing wooden beams. The expenses for these works ranged from Rs. 40.00 to Rs 500.00 depending on the work. In two exceptional cases the expenses were Rs. 1000 and Rs. 2500 respectively. For repairs to roof and walls expenses ranged from Rs. 300 to Rs. 1000.00, with an exceptional case of Rs. 4,290. The two types of work performed under this are replacing grass and the small timber (wooden sticks) in the wall. Replacing wooden sticks in the wall and floor, repairing wall made of bricks and repairing the verandah are the works falling under "repairs of walls, floor and verandah". In this category the expenses ranged from Rs. 90 to Rs. 1000. For replacing wall made of bricks, expenses incurred are Rs. 1000. The material expenses incurred for building new house was Rs. 2,800. This shows that considerable amount of cash is expended in house repairs. In done by the member of the household in involves collection of material (wood, mud, stones etc.) from the surrounding natural resources.

4.10.7 Possession of Household Goods

Data in Table 89 shows the frequency distribution of possession of household goods. 27 households (49 per cent) have access to electricity. Out of these 27 households, 19 households pay the electricity bill. The rest could be accessing electricity without a licensed connection. 15 households (27 per cent of the total sample) have tape recorder, 8 households (15 per cent) have television, four households (7 per cent) have electric fan, and seven households (13 per cent) possess bicycle.

4.10.8 Sources of Social Support

Data in Table 90 presents the information about various forms of support sought in the times of difficulties by the households. The data slows that when it comes to dealing with the difficulties related to government functionaries or the government machinery people tend to approach the GrOs and NGOs to solve the problem. However, it needs to be taken into consideration that many respondents replied they cannot visualize who will help them in various problems and these problems are related to the issue that are critical in the lives of the tribal people. In the table such issues are classified under the heading of ‘Do not know’.

4.10.9 Intra-Household Distribution of Domestic Work

With respect to intra-household distribution of domestic work, with an only exception of fuel wood collection, female members of all age group perform most of the domestic work.

The male members in all age groups shoulder insignificant part of the domestic work. The data in the sample clearly indicates towards gender-based division of labor with respect to domestic responsibilities. Data in Table 91 shows in case of fetching water, cooking, cleaning the house, washing clothes, cleaning utensils, and taking care of children more than 90 percent of the responses indicate that these work are done by female member of the household, which includes the middle aged women, old women, and young girl. Among these three, a major share of the work is done by the middle aged women, but shared with the older and younger women. In case of fuel wood collection 37 percent of the responses indicate that men do the work and in case of taking care of the sick 34 percent of the response indicated that men also share this work. This indicates that these are the only two domestic chores in which men contribute substantially. Women do all other domestic work, except in a few cases where men also contribute.

■ ■ ■

Section 5
Conclusion

Two important aspects regarding the livelihoods situation of the deprived section emerge from this study. They are: (i) the study has shown that members of households of even the deprived section can collect data in a meaningful manner, and (ii) the livelihoods framework adopted in the study has been useful in understanding the situation of the deprived sections.

5.1 Creating Data, Information, and Knowledge from the Community for Livelihoods Centered Planning and Governance

Regarding the first aspect it is seen that in spite of the various limitations imposed by the field conditions, almost fifty per cent of the data collected by the data recorders has been used for analysis in the study. Most of the participatory data collection techniques such as PRA have been focusing on the community as a whole, and techniques such as personal interview focus on the individual. The HRK offers an opportunity to bridge the gap between data collection at community level versus data collection at household level. Also the data collected is quantitative in nature, and this can be supplemented with data obtained by other techniques such as PRA and FGD to gain a better understanding of the livelihoods situation.

However, even more important than this is the fact is that these young men and women who worked as data recorders have become more aware about their own livelihoods situation, and also started participating in the activities of the GrOs. Their affiliation with the GrO has increased. This implies that that the HRK tool can be a useful tool not only for data collection but also for raising community awareness. Hence, the HRK tool can be used to initiate the process of data collection in a community as a first in a series of intervention, which can be gradually increased in scope and depth to move towards participatory micro planning and then even governance at a later stage. Though the process of sharing the results of the study with the community has not yet been undertaken as part of this study, this process is being initiated very soon and this report will play a crucial role in initiating various types of discussion with the community. It is expected that these discussion can be channelized in such a way that a point in time the community members will be able to articulate their demands regarding the action that needs to be undertaken to improve their livelihoods situation. These demand can then be presented in the form of a ‘Community Livelihoods Manifesto’ (CLM). The CLM could be used for advocating a livelihoods centered

process of development planning and implementation with the local government. Various schemes of the Government presently being implemented for poverty alleviation and community development can also be meaningfully implemented if the community is clear about the objectives it want to achieve in the development process. The CLM can play a useful role in setting these objectives and building a consensus in the community on these objectives. The awareness regarding the livelihoods situation and its detailed understanding created in the community because of the participation of the members in process such as data collection using the HRK tool would be very useful in the process of developing the CLM and subsequent community consensus building.

Thus, various types of modifications, simplifications, and adaptations of the HRK tool can be undertaken to suit various community situations, and, issues, without compromising on its core value, namely active involvement of the community in the process of data generation. This process can be then gradually upgraded to (a) move beyond data collection, to data analysis and knowledge generation at the community level, and thereby leading to community consciousness building, and (b) community asserting its right over the data and information generated and challenging the view point (including data) presented by the dominant sections in whose hand the official machinery of data collection vests. Such a process of challenging the dominant and powerful sections, based on factual information, collected by the deprived community, using sound methodologies and tools also created the possibility to challenge the process of exclusion of the poor in official surveys such as the Below Poverty Line (BPL) surveys. The asserting rights to resources begins could begin with the process of asserting the right to information, and not just information collected by the officialdom, by the right to create information, from the standpoint of the poor and deprived and give it the due credibility and legitimacy.

5.2 Importance of the Livelihoods Based Approach for Poverty Alleviation, and Development Planning and Governance

The second important aspect, which the study has brought forth, is the importance of the livelihoods framework in understanding the situation of the rural poor. The various aspects of the livelihoods situation of the sample households in the study have been elaborately discussed in the Section 4. This discussion and also the comparison of the study data with Government data as presented in Appendix I clearly show that the deprivation is not uni-dimensional. The data clearly shows that households have low levels of earning (both in cash and kind) because they have low level of work (employment), and this again is due to their low level of resource ownership/access/entitlement. Thus livelihoods insecurity

and inadequacy is not a matter of just non-fulfillment of livelihood needs, but also of non-availability of adequate resources and work.

It is in this context, the concepts of poverty proposed by the mainstream needs to be re-looked at. Poverty from an economistic perspective has been defined as the lack of adequate income (either cash or kind). Therefore most of the poverty alleviation schemes are geared to increasing the cash income of the poor households. For achieving this they propose to engage in the households either in a completely new livelihood activity based in self-employment (as in the SGSY scheme), or in wage employment (as in EGS and EAS schemes). However, in this process they neglect and negate the development of the existing resources of the households. The study shows that there is an intrinsic relationship between 'what households have', 'what they do for their livelihoods', and what they get'. An intervention which addresses only one of these questions, without looking at the complex of this intrinsic relationship, between the resources and capabilities, work, and outputs at the households level are doomed to not succeed in their objective of alleviating the poverty of the household.

This implies that it is imperative to move beyond simplistic definitions of poverty, and also beyond the limited goal of poverty alleviation by increasing cash income. What is required is intervention of securing, adequate and sustainable livelihoods of the households, by strengthening their current livelihood activities. This does not foreclose options of diversification, but attempts to develop livelihood security by neglecting the current livelihoods status of the household (by looking at all the three components of the livelihoods system as well as their inter-relations) would not yield the desired results.

Further, the policy implications of this is that interventions for improving resource ownership and access must examine both the possibility of creating new rights and entitlements, as well as increasing the productivity of the existing resources and existing livelihood activities. Another important insight emerging from the study is that in spite of sustained and massive urban and industrial intrusion, land based activities still continue to offer a major part of the livelihood opportunities for the rural poor. Also the rural poor prefer to engage in land-based livelihood activities. This is borne by the fact that though 72 per cent of the households are landless almost all the households in the sample access land either through share cropping or by encroaching forest land and cultivating them. Most households also cultivate 'Dali' lands, though clear titles to the same have yet been denied to them by the Government.

The study also shows that many households are dependent on both farm and non-farm wage work. Hence, ensuring minimum wages in wage-work, fair working conditions etc. would be one way to improving their situation. However, a more long-term and sustainable option has to be promote their rights to the local natural resources and increasing the productivity of the same. Hence, the wage support offered by Government schemes such as EGS must also be geared to achieve this goal of increasing the productivity of their resources and ensuring that they are able to obtain their basic livelihood needs (especially food and cash) from these natural resources.

■ ■ ■

Appendix I - Comparison of Data Obtained in the Study with Government Data

In this appendix an attempt is made to make a preliminary comparison of some key data variables with published data of the Government for those same variables. While doing this the researchers are fully aware and admit that this exercise would have serious limitations on three counts: (a) conceptual differences – this implies differences in the way the variable is conceptualized in this study as against that in the Government survey, (b) methodological differences – this implies that there could be variations in the way the data was collected in study and in the Government survey, and (c) statistical limitations due to variations in the sample – both in terms of the nature of the sample and the magnitude.

However, in spite of these limitations the following attempt is made so that the study moves beyond the simple description of the data as undertaken Section 4 of the report and the current situation of the tribal households can be seen in a broader context based on this comparison. However, when attempting to make this comparison, it is essential to select variables, which could be good indicators for the various components of the livelihoods system of the households. This is also necessary because the entire study is pivoted on the concept of the livelihoods as described in section 1. Hence, this comparison is not an attempt to utilize the current data to challenge the official data obtained from the Government survey, but to show where the tribal communities stand on these indicators when compared with data obtained from national surveys. And therefore this comparison is to highlight the situation of the tribal households (especially those in the study) vis-à-vis other communities and sections, which are adequately represented in the survey of the national sample. While making the choice of the variables, as meaningful indicators we have selected the following schema

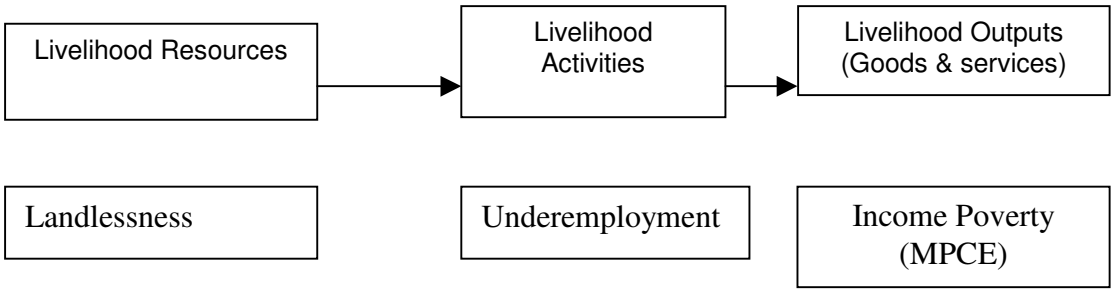
Resources Component of the Livelihood System: For this the indicator chosen is land holding or landless ness. This is done with the assumption that ownership of land is a major factor in enhancing the resources status of the household in the rural areas.

Work Component of the Livelihood System: For this the indicator chosen is the extent of underemployment, especially in the two main livelihood activities – wage labor and own farm work.

Output or Needs Satisfaction Component of the Livelihood System: For this the indicator chosen in the Monthly Per Capita Expenditure (MPCE), consisting of both direct

cash expenditure and food produced for self consumption suitably moneitized. Low consumption expenditure is also often referred to as an indicator of Income Poverty.

Thus, this schema can be diagrammatically be represented as follows:



1. Land Holding and Landlessness

Data in Table 45 of the main report shows that of the 55 households in the sample only 15 household have lands with clear titles (ancestral lands or lands obtained). This implies that 72 per cent of the households are landless, though they access land, either by way of share cropping or encroachment.

The macro level Government data in the *India Rural Development Report* brought out by the National Institute for Rural Development, Hyderabad of the Ministry of Rural Development, Government India notes that the absolute landless and the near landless (those owning up to .2 ha of land) account for as much as 43% of the total peasant households. Nearly 58% of India's population is still dependant on agriculture for livelihood. More than half of this percentage (nearly 63%), however, owns smallholdings of less than 1 hectare while the large parcels of 10 hectares of land or more are in the hands of less than 2%. The Report itself is based on National Sample Survey data of 1999.

Hence, the above comparison shows that the study sample is even more deprived compared to the national average. While at the national level 43 per cent of the households are landless, in the study sample 72 per cent of the households are landless.

2. Employment

As discussed in section 4.5.1.3 of the main report the total population of the 55 sample households is 289. Of these 170 are adults (above 18 years of age) and 119 are children (below 18 years of age). Of these 170 adult persons, 85 are women and 85 are men. Of the 85 men, all the 85 appear in the daily household record keeping, and therefore have

participated in one of the following livelihood activity, namely, wage labor, own farm-work, forest collection and fishing, or animal husbandry. However, in the case of women, only 68 of the 85 women have participated in these activities based on the HRK data. Hence, most probably these 17 women have participated only in domestic work. Hence, in the 55 households, 152 members are involved in different kinds of work, such as wage labor, agriculture on own-farm, animal husbandry, forest collection or fishing. We refer to this group as the 'work force'. Of these 152 persons, 55 per cent are men, and 45 per cent are women. This implies that women's participation in the work force is lower than that of men. Also it is observed that 27 persons, mostly sons and daughters are below 18 years of age, but have participated in one of the above livelihood activities, mainly forest collection and animal husbandry. Hence, it could be inferred that of the 152 persons engaged in various livelihood activities, 125 (82 %) are adults, where as 27 (18 %) are children. Assuming that these persons (at least the adults) were available for work for all the days during the data recording period, we can refer them to as the 'usually employed' as described in the NSS concepts. Thus, it is seen that, if

(i) The total person days available = 104 (average number of data days for 55 households) X 125 persons = 13,000 person days

(j) The total number of days of work in wage labor by 55 households = 1740 (Table 13), and in own-farm work = 1827 (Table 29), therefore total number of work days = 3567.

(k) So number of person days of the usually employed utilized for work = 3567/13,000 = 27.43 per cent, say 27 per cent.

(l) The days spent in other activities such as forest collection, fishing, and animal husbandry has not been considered in the above analysis. This is because the number of hours spent (on an average) per day in these activities shows that is much less than eight hours, secondly it is also seen that children are also involved in these activities.

(m) Also in this study the work days has not been disaggregated gender wise. However, raw data for the same, collected using the HRK tool is available.

(n) Assuming that all the persons enumerated above were available for, and willing to work provided that they got wage work, the above data shows that, of the total of the total person days available work was available for only 27 per cent of the days *(proportion of person-days of the usually employed utilized for work).* This implies an underemployment of about 63 per cent (both female and male combined) in the study sample, where as figure as per the NSS data of the national sample is 22 per cent for females and 10 per cent for males in rural India.

Government Data

Conceptual Definitions: Underemployment is commonly defined as the underutilization of labor time of the workers. Some of the persons categorized as usually employed do not have work throughout the year due to seasonality in work or otherwise and their labor time is not fully utilized - they are, therefore, underemployed. Their underemployment is termed *visible underemployment* if they report themselves to be available for work in respect to a shorter reference period, say, a week or each day of the week.

It is observed that the proportion of person-days of the usually employed utilized for work was quite low for females compared to males in the NSS data. During 1999-2000, for females, it was about 68 per cent in rural India as against 90 for rural males respectively during 1999-2000.

Source of NSS Data: NSS 55th Round (Report No. 455(55/10/1))

3. Consumption Expenditure and Income Poverty

As discussed in the schema above, consumption expenditure has been chosen as an indicator for representing the 'outputs' component of the livelihood system. This indicator has been chosen because consumption expenditure accounts for all the goods and services obtained as output either through exchange of cash income or also directly in kind. Also, the National Sample Survey (NSS) data of the Government of India conducts surveys to assess the level of consumption expenditure at a national level and this data is available in the public domain. In the foregoing discussion we try to compare data regarding consumption expenditure, as obtained in the study with the NSS data.

In this study data regarding the consumption expenditure of the households was recorded using the HRK tool. As discussed in 4.9.2 the average cash MPCE (Monthly Per Capita Expenditure) of the study sample (55 households) for monsoon is Rs. 123 and for winter (15 households) is Rs. 177. This does not include consumption of home grown stock and goods obtained through free collection. Since the NSS data has considered the monetary value of home grown stock (at ex farm or ex factory prices), we attempt to calculate this value for the study sample. In this study the data regarding only cereals produced by the households is available. Assuming this to be the major commodity which is consumed from home grown stock, it is seen that total quantity of cereals produced by 55 households is 30,440 kilograms (Table 35) of which 4087 kilograms is reported to have been sold (Table 37). Hence, the per month per household availability of cereals is around 40

kilograms. The per capita (effective adult) availability is 40 / 4.37 = 9.15 kilograms. Assuming an ex-farm price of Rs. 7 per kilogram this implies a consumption of value of about Rs. 64.00. Hence, the total MPCE (cash + cereals) is Rs. 123 + Rs. 64 = Rs 187.

This study has not considered the value of other home grown stocks (such a fruits and vegetables) and also items obtained through free collection (mainly forest foods in the form of tubers and vegetables, fish, and fuel wood), and the study data shows that the households do obtain such items from free collection. Hence, this has to be considered in the valuation of the MPCE. However, data regarding the quantities of these items have not been collected in this study. This point should be bore in mind while comparing the data of this study with the NSS data.

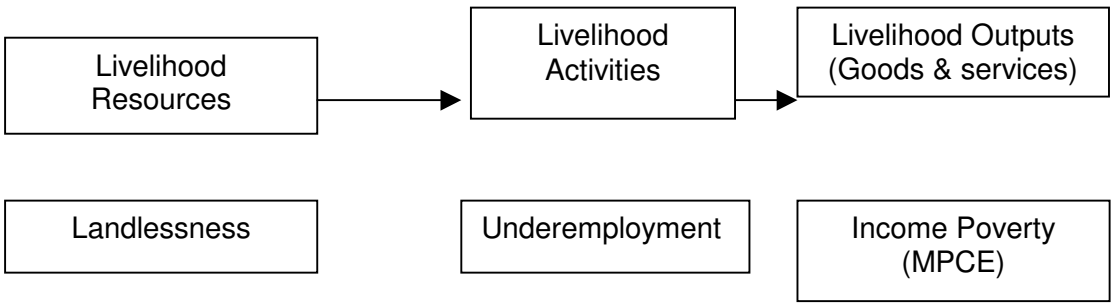
It also needs to noted here that there is a difference between the methods used to calculate household size. In this study while calculating the household size, two children are considered as equivalent to one adult. Thus the average effective number of adults in the household is 4.37 (monsoon sample) and 3.8 (winter sample). In case of the NSS survey household size is considered as the total number of persons in the household. In case of the NSS sample the average household size for the rural sample is 5.0 (GoI, 2001, pp 70). Hence this fact should be duly considered while comparing the data of this study and the NSS data.

The data of the 55th round of the NSS survey on consumption expenditure (June 1999 to June 2000) shows that the average MPCE for rural India of the national sample of Rs. 486. However, this survey also shows that 5.1 per cent of the NSS sample has an average MPCE of Rs. 191 and lies in the MPCE class 0 - 255. The NSS data also shows that the average per capita per diem calorie intake of this class is 1383 kilo calories of the rural sector (GoI, 2001, pp 113). Comparison of the MPCE of the study data with NSS data shows that the MPCE of the sample in the study is 38 percent of the average of the national sample. Also one could say that the study sample values roughly correspond with the lowest MPCE class of the national sample.

Source of NSS Data: GoI, 2001, Sarvekshana, 86th Issue, Vol. XXIV No. 4 and Vol. XXV No. 1, Journal of the National Sample Survey Organization, National Sample Survey Organization, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Conclusion

The comparative figures for the various indicators discussed above are shown below in a diagrammatic form. Further discussion on this has been presented in section 5 of the main report.



Government Data
(National Samples)

43 per cent households engaged in agriculture.	Female - 32 % Male - 10 %	Rs. 486.00

Study Sample

72 per cent of the sample households, almost all are engaged in agriculture.	Male and Female Combined - 63 %	Rs. 187.00

■ ■ ■

Appendix II - English Version of the Format of the "Household Record-Keeping Tool"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table I: Wage Labor Work

Date	Name of the Household Member	Type of work performed in Wage Labor (Farm / non-farm)	Wages Earned

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table II: Own Farm Work

Date	Name of the Household Member	Type of work performed in Farming *	Time Went came at back at		No. Of external laborers employed on farm Men	Women

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table III: Animal Husbandry Related Work

Date	Name of the Household Member	Time Spent From	To	Poultry - Number of Eggs Consumed

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table IV: Forest Collection, Fishing, and Hunting Related Work

Date	Name of the Household Member	Time Spent From	To	Item Collected

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table V and VI: Household Sales and Purchase

	Purchase		**Sales**	
Date	Item Purchased	Expenditure on purchase (Cash)	Item Sold	Earnings (Cash)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Table VII and VIII: Household Borrowings and Barter

	Borrowings		**Barter**	
Date	Cash borrowed	Borrowings in kind	The item received in exchange	Quantity of the item received in exchange

HH. No.	Hamlet No.	Name and sign of the Field investigator	Name and sign of the Verifying person	Name and sign of Data coder

The row that appears before every data sheet (containing numbers 1 to 31) indicates the dates in a given month. The data recorder is supposed to tick-mark (✓) the date of administering the questionnaire. If s/he does not administer the questionnaire on a particular day, the respective date should be left blank.

Appendix III – Data Tables

Table 1: PERCENTAGE OF CASH EARNING FROM NON MIGRATING WAGE LABOUR IN TOTAL CASH INCOME: Baseline Survey Data (Yearly Recall)

Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Percentage	Number of HHs	Percentage	Cumulative Percentage
1	None	20	7%	7%	9	18%	18%
2	Less Than 10 %	17	6%	13%	3	6%	24%
3	11 to 20 %	24	8%	22%	4	8%	32%
4	21 to 30 %	18	6%	28%	3	6%	38%
5	31 to 40 %	19	7%	35%	4	8%	46%
6	41 to 50 %	18	6%	41%	1	2%	48%
7	51 to 60 %	24	8%	49%	4	8%	56%
8	61 to 70 %	25	9%	58%	3	6%	62%
9	71 to 80 %	25	9%	67%	5	10%	72%
10	81 to 90 %	25	9%	76%	3	6%	78%
11	91 to 100 %	68	24%	100%	11	22%	100%
	Total	**283**	**100%**		**50**	**100%**	

Graph Showing Percentage of Households in the Sample in Different Class Of Earnings From Non-Migrating Wage Labour as a Percentage of the Total Cash Income

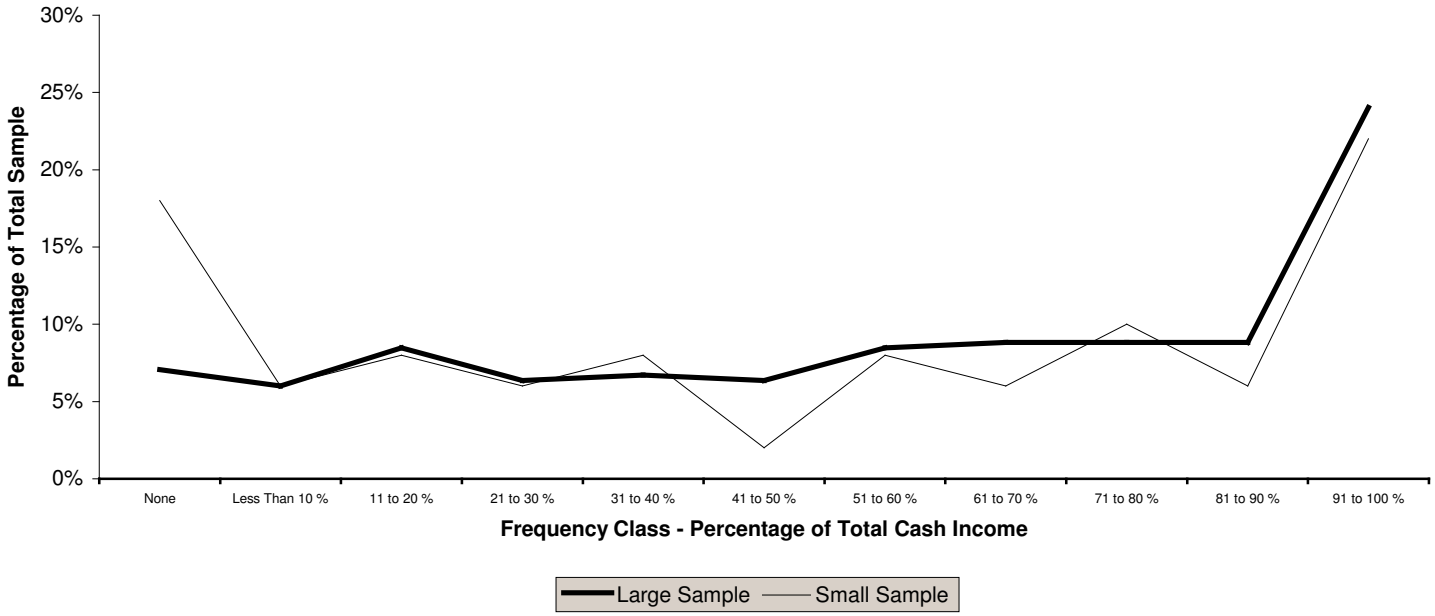


Table 2: PERCENTAGE OF CASH EARNING FROM MIGRATING WAGE LABOUR IN TOTAL CASH INCOME							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Frequency	Number of HHs	Percentage	Cumulative Frequency
1	None	233	82%	82%	36	72%	72%
2	Less Than 10 %	4	1%	84%	2	4%	76%
3	11 to 20 %	1	0%	84%	2	4%	80%
4	21 to 30 %	5	2%	86%	1	2%	82%
5	31 to 40 %	1	0%	86%	0	0%	82%
6	41 to 50 %	9	3%	89%	1	2%	84%
7	51 to 60 %	5	2%	91%	1	2%	86%
8	61 to 70 %	10	4%	95%	3	6%	92%
9	71 to 80 %	5	2%	96%	0	0%	92%
10	81 to 90 %	6	2%	99%	2	4%	96%
11	91 to 100 %	4	1%	100%	2	4%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 3: PERCENTAGE OF CASH EARNINGS FROM LIQUOR MAKING AND SELLING IN TOTAL CASH INCOME							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Frequency	Number of HHs	Percentage	Cumulative Frequency
	None	270	95%	95%	47	94%	94%
1	Less Than 10 %	0	0%	95%	1	2%	96%
2	11 to 20 %	0	0%	95%	0	0%	96%
3	21 to 30 %	0	0%	95%	0	0%	96%
4	31 to 40 %	2	1%	96%	0	0%	96%
5	41 to 50 %	3	1%	97%	0	0%	96%
6	51 to 60 %	1	0%	98%	0	0%	96%
7	61 to 70 %	1	0%	98%	0	0%	96%
8	71 to 80 %	1	0%	98%	0	0%	96%
9	81 to 90 %	3	1%	99%	1	2%	98%
10	91 to 100 %	2	1%	100%	1	2%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 4: PERCENTAGE OF CASH EARNINGS FROM SALE OF ANIMAL PRODUCE IN TOTAL CASH INCOME							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Frequency	Number of HHs	Percentage	Cumulative Frequency
1	None	204	72%	72%	38	76%	76%
2	Less Than 10 %	44	16%	88%	9	18%	94%
3	11 to 20 %	13	5%	92%	1	2%	96%
4	21 to 30 %	9	3%	95%	0	0%	96%
5	31 to 40 %	6	2%	98%	1	2%	98%
6	41 to 50 %	2	1%	98%	0	0%	98%
7	51 to 60 %	2	1%	99%	1	2%	100%
8	61 to 70 %	2	1%	100%	0	0%	100%
9	71 to 80 %	0	0%	100%	0	0%	100%
10	81 to 90 %	1	0%	100%	0	0%	100%
11	91 to 100 %	0	0%	100%	0	0%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 5: PERCENTAGE OF CASH EARNINGS FROM SALE OF FISH IN TOTAL CASH INCOME							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Frequency	Number of HHs	Percentage	Cumulative Frequency
1	None	243	86%	86%	43	86%	86%
2	Less Than 10 %	21	7%	93%	5	10%	96%
3	11 to 20 %	5	2%	95%	0	0%	96%
4	21 to 30 %	5	2%	97%	0	0%	96%
5	31 to 40 %	2	1%	98%	1	2%	98%
6	41 to 50 %	2	1%	98%	0	0%	98%
7	51 to 60 %	0	0%	98%	0	0%	98%
8	61 to 70 %	0	0%	98%	0	0%	98%
9	71 to 80 %	1	0%	99%	0	0%	98%
10	81 to 90 %	2	1%	99%	1	2%	100%
11	91 to 100 %	2	1%	100%	0	0%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 6: PERCENTAGE OF CASH EARNINGS FROM FARM PRODUCE IN TOTAL CASH INCOME

Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percent	Cumulative Frequency	Number of HHs	Percentage	Cumulative Frequency
1	None	182	64%	64%	31	62%	62%
2	Less Than 10 %	36	13%	77%	7	14%	76%
3	11 to 20 %	25	9%	86%	4	8%	84%
4	21 to 30 %	12	4%	90%	0	0%	84%
5	31 to 40 %	5	2%	92%	0	0%	84%
6	41 to 50 %	7	2%	94%	1	2%	86%
7	51 to 60 %	7	2%	97%	0	0%	86%
8	61 to 70 %	0	0%	97%	0	0%	86%
9	71 to 80 %	1	0%	97%	0	0%	86%
10	81 to 90 %	0	0%	97%	0	0%	86%
11	91 to 100 %	8	3%	100%	7	14%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 7: PERCENTAGE OF CASH EARNINGS FROM SALE OF FOREST COLLECTION PRODUCTS IN TOTAL CASH INCOME							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percent	Cumulative frequency	Number of HHs	Percent	Cumulative Frequency
1	None	150	53%	53%	29	58%	58%
2	Less Than 10 %	29	10%	63%	6	12%	70%
3	11 to 20 %	33	12%	75%	5	10%	80%
4	21 to 30 %	26	9%	84%	3	6%	86%
5	31 to 40 %	16	6%	90%	2	4%	90%
6	41 to 50 %	11	4%	94%	4	8%	98%
7	51 to 60 %	4	1%	95%	0	0%	98%
8	61 to 70 %	4	1%	96%	1	2%	100%
9	71 to 80 %	5	2%	98%	0	0%	100%
10	81 to 90 %	3	1%	99%	0	0%	100%
11	91 to 100 %	2	1%	100%	0	0%	100%
	Total	**283**	**100%**		**50**	**100%**	

Table 8: FREQUENCY DISTRIBUTION OF HOUSEHOLDS BASED ON TOTAL CASH INCOME (In Rupees)

Sr.No	Frequency Classes (Rupees)	Large Sample			Small Sample		
		Number of HHs	Percent	Cumulative Percentage	Number of HHs	Percent	Cumulative Percentage
1	Less Than 3,000	41	14%	14%	3	6%	6%
2	3,001 to 6,000	62	22%	36%	12	24%	30%
3	6,001 to 9,000	45	16%	52%	5	10%	40%
4	9,001 to 12,000	35	12%	65%	8	16%	56%
5	12,001 to 15,000	24	8%	73%	3	6%	62%
6	15,001 to 18,000	20	7%	80%	4	8%	70%
7	18,001 to 21,000	13	5%	85%	2	4%	74%
8	21,001 to 24,000	13	5%	89%	7	14%	88%
9	24,001 to 27,000	10	4%	93%	2	4%	92%
10	27,001 to 30,000	11	4%	97%	3	6%	98%
11	30,001 to 33,000	3	1%	98%	1	2%	100%
12	33,001 to 36,000	1	0%	98%	0	0%	100%
13	36,001 & Above	5	2%	100%	0	0%	100%
	Total	**283**	**100%**		**50**	**100%**	

Graph Showing Cumulative Frequency Distribution (less than) of Total Cash Income of Households

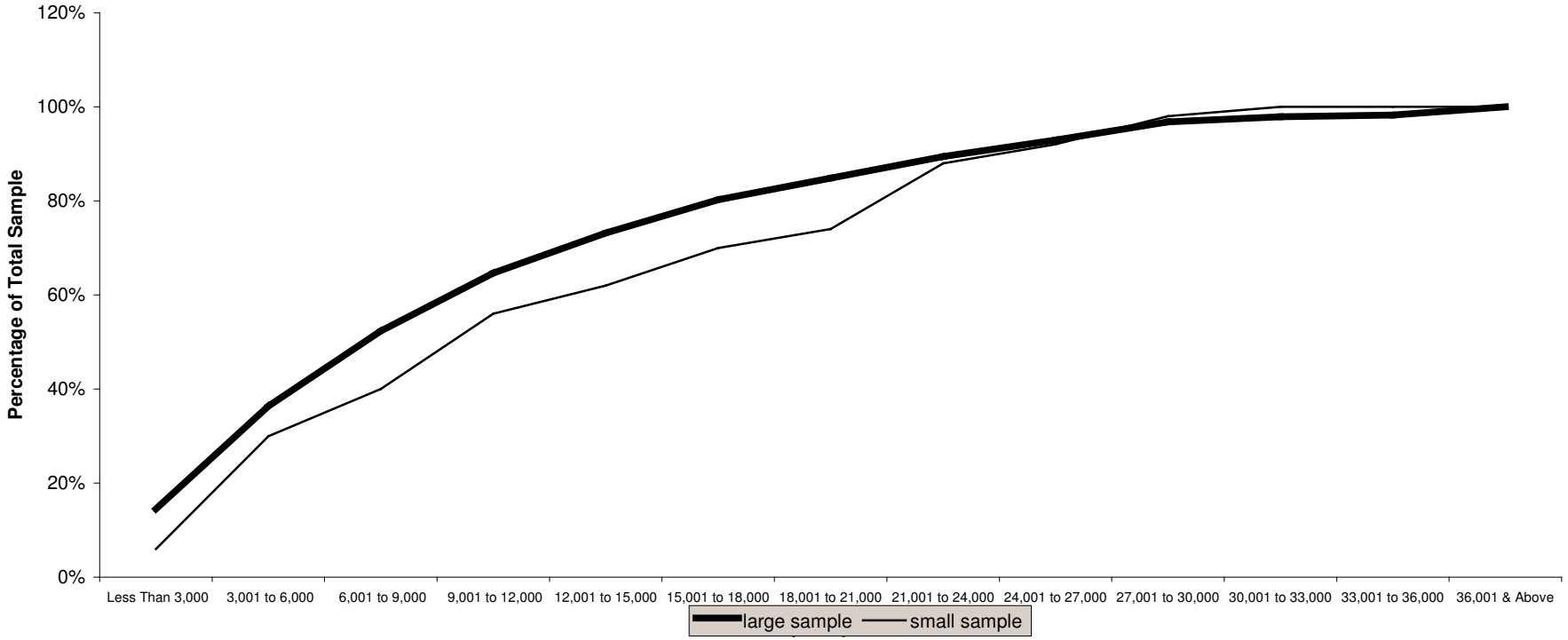


Table 9: Number Of Days Meals Earned From Employer In Wage Labour Per Person

Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Percentage	Number of HHs	Percent	Cumulative Percentage
1	None	46	16%	16%	18	36%	36%
2	1-10 days	40	14%	30%	13	26%	62%
3	11-20 days	54	19%	49%	9	18%	80%
4	21-30 days	40	14%	64%	6	12%	92%
5	31-40 days	30	11%	74%	0	0%	92%
6	41-50 Meals	25	9%	83%	2	4%	96%
7	51-60 Meals	17	6%	89%	0	0%	96%
8	61-70 Meals	12	4%	93%	0	0%	96%
9	71-80 Meals	5	2%	95%	0	0%	96%
10	81-90 Meals	5	2%	97%	1	2%	98%
11	91-100 Meals	1	0%	97%	0	0%	98%
12	101-110 Meals	1	0%	98%	1	2%	100%
13	111-120 Meals	3	1%	99%	0	0%	100%
14	Above 121	4	1%	100%	0	0%	100%
	Total	**283**	**100.0%**		**50**	**100%**	

Table 10: Grains Obtained From Own Farm or Barter (In Kilograms)							
Sr.No	Frequency Classes	Large Sample			Small Sample		
		Number of HHs	Percentage	Cumulative Percentage	Number of HHs	Percentage	Cumulative Percentage
1	None	86	30%	30%	9	18%	18%
2	1-50 K.G.	10	4%	34%	2	4%	22%
3	51-100 K.G.	14	5%	39%	1	2%	24%
4	101-150 K.G.	9	3%	42%	1	2%	26%
5	151-200 K.G.	17	6%	48%	5	10%	36%
6	201-250 K.G.	12	4%	52%	2	4%	40%
7	251-300 K.G.	15	5%	58%	2	4%	44%
8	301-350 K.G.	12	4%	62%	3	6%	50%
9	351-400 K.G.	18	6%	68%	5	10%	60%
10	401-450 K.G.	8	3%	71%	1	2%	62%
11	451-500 K.G.	5	2%	73%	1	2%	64%
12	501-1000 K.G.	48	17%	90%	9	18%	82%
13	1001-1500 K.G.	20	7%	97%	5	10%	92%
14	1501-2000 K.G.	3	1%	98%	1	2%	94%
15	2001-3000 K.G.	2	1%	99%	0	0%	94%
16	3001-4000 K.G.	2	1%	99%	1	2%	96%
17	Above 4000 K.G.	2	1%	100%	2	4%	100%
	Total	**283**	**100%**		**50**	**100%**	

Graph Showing Cumulative Frequency Distribution Of Households Based on Grains Produced From Own Farm or Barter

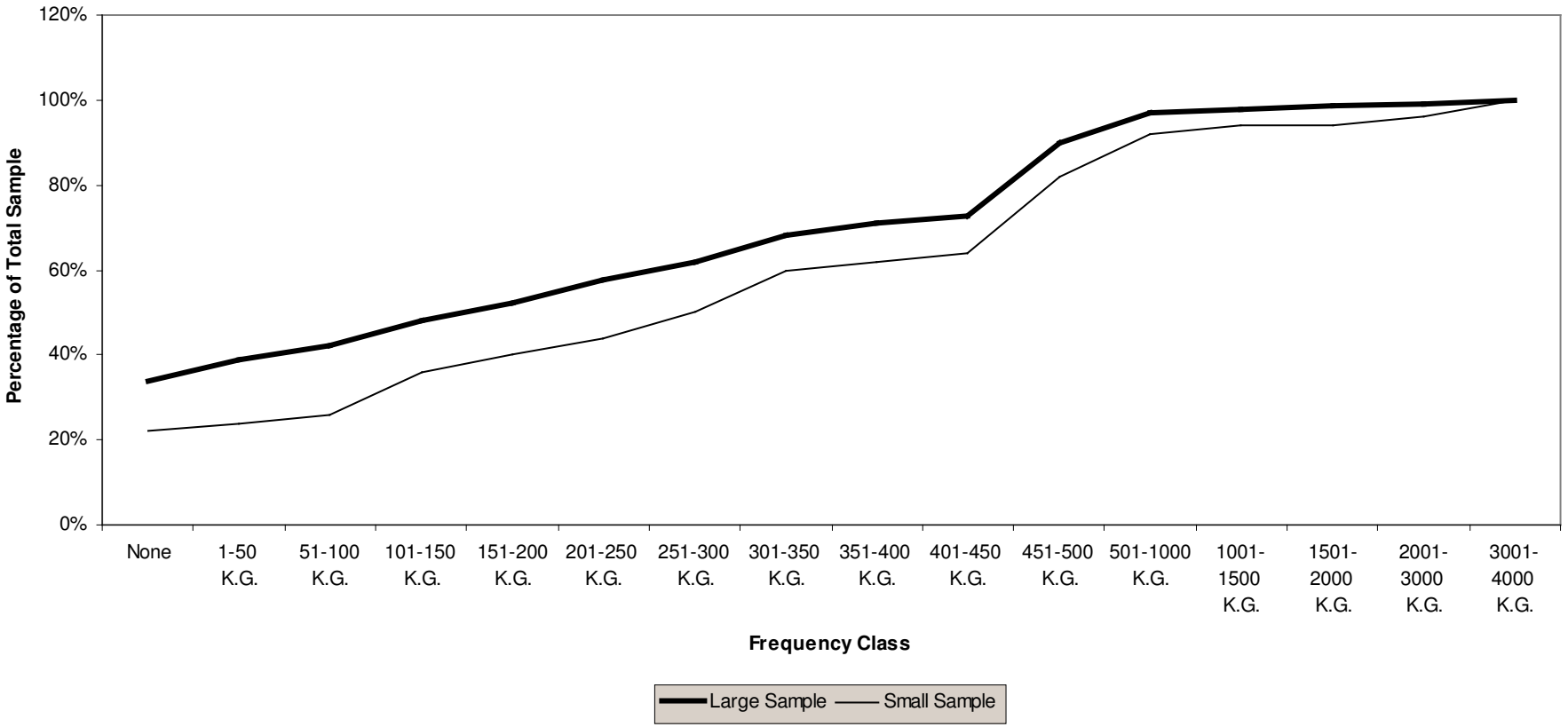


Table11: FREQUENCY DISTRIBUTION OF HOUSEHOLD BASED ON HOUSEHOLD SIZE							
Sr.No.	No. of Persons in Household (Aduts and Children)	Large Sample			Small Sample		
		Number of HHs	Percent	Cumulative Frequency	Number of HHs	Percent	Cumulative Frequency
1	1	8	3%	3%	1	2%	2%
2	2	30	11%	13%	3	6%	8%
3	3	39	14%	27%	8	16%	24%
4	4	64	23%	50%	8	16%	40%
5	5	53	19%	69%	9	18%	58%
6	6	44	16%	84%	6	12%	70%
7	7	21	7%	92%	4	8%	78%
8	8	12	4%	96%	7	14%	92%
9	9	6	2%	98%	3	6%	98%
10	10	4	1%	99%	1	2%	100%
11	11	1	0.4%	99.4%	0	0%	100%
12	12	1	0.4%	99.8%	0	0%	100%
	Total	**283**	**100%**		**50**	**100%**	
	Weighted Average	**4.70**			**5.30**		

Data Table 12 : Wage Earnings Based on HRK Data					
HH No.	Hamlet	No. of Persons in Wage Labour	Data Days	Income in Rupees	Average Earning Per Wage Working Person in the HH, Per Day in Rupees.
1	**2**	**3**	**4**	**5**	**6**
6	Tareghar	1	103	Nil	Nil
30	Hedoshi	0	114	Nil	Nil
31	Hedoshi	0	93	Nil	Nil
36	Hedoshi	0	101	Nil	Nil
64	Phansidand	0	94	Nil	Nil
113	Wafeghar	1	113	60	0.53
68	Mahagaon	1	122	90	0.74
59	Phansidand	2	87	160	0.92
33	Hedoshi	1	94	150	1.60
61	Phansidand	2	90	350	1.94
37	Hedoshi	2	114	450	1.97
38	Hedoshi	2	113	490	2.17
72	Mahagaon	2	112	525	2.34
43	Hedoshi	1	116	280	2.41
29	Hedoshi	2	118	600	2.54
114	Wafeghar	3	115	940	2.72
28	Hedoshi	2	107	640	2.99
35	Hedoshi	2	103	635	3.08
66	Phansidand	3	84	865	3.43
98	Uddhar	2	112	800	3.57
83	Arebudruk	3	80	880	3.67
96	Uddhar	1	109	400	3.67
39	Hedoshi	2	119	1055	4.43
60	Phansidand	2	87	780	4.48
71	Mahagaon	3	115	1645	4.77
70	Mahagaon	3	117	1695	4.83
69	Mahagaon	3	94	1450	5.14
97	Uddhar	1	98	540	5.51
34	Hedoshi	2	99	1105	5.58
5	Khandad	3	103	1767	5.72

32	Hedoshi	2	96	1110	5.78
67	Mahagaon	3	122	2120	5.79
75	Mahagaon	1	108	660	6.11
4	Khandad	2	104	1300	6.25
89	Ambeghar	3	109	2260	6.91
91	Ambeghar	3	104	2265	7.26
3	Khandad	2	106	1612	7.60
77	Mahagaon	3	114	2620	7.66
73	Mahagaon	2	119	1995	8.38
1	Khandad	2	112	1980	8.84
47	Ambeghar	1	85	760	8.94
10	Tareghar	1	113	1149	10.17
8	Tareghar	2	100	2035	10.18
9	Tareghar	2	111	2273	10.24
88	Ambeghar	1	109	1150	10.55
84	Arebudruk	3	83	2950	11.85
12	Tareghar	1	101	1300	12.87
49	Ambeghar	1	90	1200	13.33
11	Tareghar	3	102	4709	15.39
48	Ambeghar	1	87	2012	23.13
90	Ambeghar	2	109	5285	24.24
56	Dhawate	1	117	3250	27.78
7	Tareghar	1	93	2962	31.85
41	Hedoshi	1	113	3630	32.12
2	Khandad	1	100	3229	32.29
Total		97	5733	74168	
Average		2	104	1349	8.53

DATA TABLE 13: Wage Work Days Based on Daily Recall (HRK Data)					
HH No.	Hamlet	No. of Persons in Wage Labour	Data Days	Total Wage Work Days Per Household	Employment Percentage Per Working Person
1	**2**	**3**	**4**	**5**	**6**
30	Hedoshi	0	114	0	Nil
31	Hedoshi	0	93	0	Nil
36	Hedoshi	0	101	0	Nil
64	Phansidand	0	94	0	Nil
113	Wafeghar	1	113	2	2%
59	Phansidand	2	87	4	2%
68	Mahagaon	1	122	3	2%
33	Hedoshi	1	94	3	3%
61	Phansidand	2	90	6	3%
43	Hedoshi	1	116	4	3%
37	Hedoshi	2	114	9	4%
29	Hedoshi	2	118	11	5%
38	Hedoshi	2	113	11	5%
66	Phansidand	3	84	13	5%
72	Mahagaon	2	112	15	7%
98	Uddhar	2	112	18	8%
60	Phansidand	2	87	14	8%
114	Wafeghar	3	115	33	10%
28	Hedoshi	2	107	21	10%
70	Mahagaon	3	117	35	10%
34	Hedoshi	2	99	21	11%
69	Mahagaon	3	94	30	11%
67	Mahagaon	3	122	42	11%
89	Ambeghar	3	109	39	12%
71	Mahagaon	3	115	42	12%
91	Ambeghar	3	104	38	12%
73	Mahagaon	2	119	29	12%
96	Uddhar	1	109	14	13%
75	Mahagaon	1	108	14	13%

83	Arebudruk	3	80	34	14%
97	Uddhar	1	98	14	14%
77	Mahagaon	3	114	49	14%
49	Ambeghar	1	90	13	14%
3	Khandad	2	106	31	15%
47	Ambeghar	1	85	14	16%
88	Ambeghar	1	109	19	17%
35	Hedoshi	2	103	37	18%
90	Ambeghar	2	109	40	18%
6	Tareghar	1	103	19	18%
5	Khandad	3	103	62	20%
8	Tareghar	2	100	42	21%
32	Hedoshi	2	96	41	21%
39	Hedoshi	2	119	52	22%
11	Tareghar	3	102	78	25%
9	Tareghar	2	111	58	26%
48	Ambeghar	1	87	29	33%
1	Khandad	2	112	75	33%
4	Khandad	2	104	80	38%
84	Arebudruk	3	83	106	43%
12	Tareghar	1	101	45	45%
7	Tareghar	1	93	47	51%
56	Dhawate	1	117	61	52%
41	Hedoshi	1	113	70	62%
10	Tareghar	1	113	73	65%
2	Khandad	1	100	80	80%

Data Table 14: Distribution of Farm and Non-Farm Wage Work Based on Daily Recall (HRK Data)						
HH No.	Hamlet	Farm Wage Days	Non-Farm Wage Days	Total Wage Work Days	% of Farm Work Days	% of Non-Farm Work Days
1	**2**	**3**	**4**	**5**	**6**	**7**
30	Hedoshi	0	0	0	0%	0%
31	Hedoshi	0	0	0	0%	0%
36	Hedoshi	0	0	0	0%	0%
64	Phansidand	0	0	0	0%	0%
6	Tareghar	0	19	19	0%	100%
33	Hedoshi	0	3	3	0%	100%
34	Hedoshi	0	21	21	0%	100%
38	Hedoshi	0	11	11	0%	100%
41	Hedoshi	0	70	70	0%	100%
43	Hedoshi	0	4	4	0%	100%
49	Ambeghar	0	13	13	0%	100%
56	Dhawate	0	61	61	0%	100%
60	Phansidand	0	14	14	0%	100%
61	Phansidand	0	6	6	0%	100%
88	Ambeghar	0	19	19	0%	100%
96	Uddhar	0	14	14	0%	100%
90	Ambeghar	1	39	40	3%	98%
29	Hedoshi	1	10	11	9%	91%
2	Khandad	10	70	80	13%	88%
1	Khandad	14	61	75	19%	81%
83	Arebudruk	7	27	34	21%	79%
98	Uddhar	4	14	18	22%	78%
5	Khandad	15	47	62	24%	76%
4	Khandad	21	59	80	26%	74%
9	Tareghar	18	40	58	31%	69%
10	Tareghar	25	48	73	34%	66%
11	Tareghar	27	51	78	35%	65%
84	Arebudruk	40	66	106	38%	62%
7	Tareghar	18	29	47	38%	62%

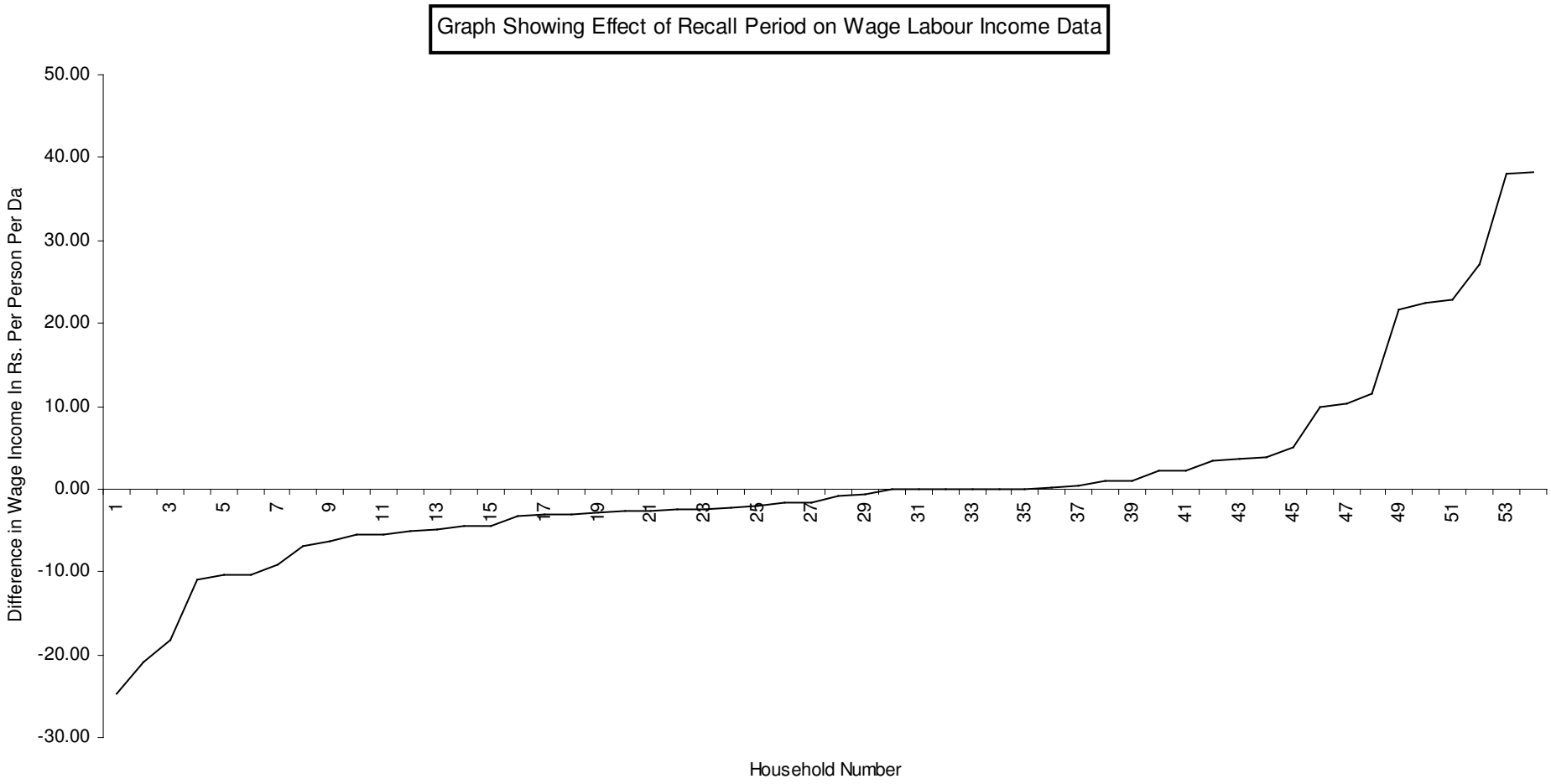
8	Tareghar	17	25	42	40%	60%
89	Ambeghar	17	22	39	44%	56%
32	Hedoshi	23	18	41	56%	44%
97	Uddhar	8	6	14	57%	43%
48	Ambeghar	17	12	29	59%	41%
70	Mahagaon	21	14	35	60%	40%
72	Mahagaon	9	6	15	60%	40%
47	Ambeghar	9	5	14	64%	36%
35	Hedoshi	24	13	37	65%	35%
28	Hedoshi	14	7	21	67%	33%
66	Phansidand	9	4	13	69%	31%
91	Ambeghar	27	11	38	71%	29%
67	Mahagaon	30	12	42	71%	29%
71	Mahagaon	30	12	42	71%	29%
75	Mahagaon	10	4	14	71%	29%
39	Hedoshi	38	14	52	73%	27%
77	Mahagaon	38	11	49	78%	22%
37	Hedoshi	7	2	9	78%	22%
3	Khandad	30	1	31	97%	3%
12	Tareghar	45	0	45	100%	0%
59	Phansidand	4	0	4	100%	0%
68	Mahagaon	3	0	3	100%	0%
69	Mahagaon	30	0	30	100%	0%
73	Mahagaon	29	0	29	100%	0%
113	Wafeghar	2	0	2	100%	0%
114	Wafeghar	33	0	33	100%	0%

Data Table 15: Effect of Recall Period on Wage Work Income Data								
HH No.	Hamlet	No. of Persons in Wage Labour	Data Days	Income in Rs.(Daily Recall-HRK)	Income in Rs.Yearly Recall-Monsoon	Income Per Person Per Day Based on Daily Recall	Income Per Person Per Day Based on Yearly Recall	Difference in Income in Rs.-Yearly Less Daily Recall
41	Hedoshi	1	113	3630	920	32.12	7.30	-24.82
2	Khandad	1	100	3229	1440	32.29	11.43	-20.86
90	Ambeghar	2	109	5285	1520	24.24	6.03	-18.21
84	Arebudruk	3	83	2950	300	11.85	0.79	-11.05
48	Ambeghar	1	87	2012	1600	23.13	12.70	-10.43
11	Tareghar	3	102	4709	1900	15.39	5.03	-10.36
49	Ambeghar	1	90	1200	525	13.33	4.17	-9.17
77	Mahagaon	3	114	2620	280	7.66	0.74	-6.92
73	Mahagaon	2	119	1995	525	8.38	2.08	-6.30
34	Hedoshi	2	99	1105	0	5.58	0.00	-5.58
3	Khandad	2	106	1612	540	7.60	2.14	-5.46
69	Mahagaon	3	94	1450	0	5.14	0.00	-5.14
70	Mahagaon	3	117	1695	0	4.83	0.00	-4.83
91	Ambeghar	3	104	2265	1050	7.26	2.78	-4.48
5	Khandad	3	103	1767	480	5.72	1.27	-4.45
12	Tareghar	1	101	1300	1200	12.87	9.52	-3.35
1	Khandad	2	112	1980	1440	8.84	5.71	-3.13
28	Hedoshi	2	107	640	0	2.99	0.00	-2.99
83	Arebudruk	3	80	880	300	3.67	0.79	-2.87
67	Mahagaon	3	122	2120	1150	5.79	3.04	-2.75
32	Hedoshi	2	96	1110	800	5.78	3.17	-2.61
43	Hedoshi	1	116	280	0	2.41	0.00	-2.41
71	Mahagaon	3	115	1645	900	4.77	2.38	-2.39
38	Hedoshi	2	113	490	0	2.17	0.00	-2.17
37	Hedoshi	2	114	450	0	1.97	0.00	-1.97
72	Mahagaon	2	112	525	175	2.34	0.69	-1.65
98	Uddhar	2	112	800	500	3.57	1.98	-1.59
59	Phansidand	2	87	160	0	0.92	0.00	-0.92
8	Tareghar	2	100	2035	2400	10.18	9.52	-0.65

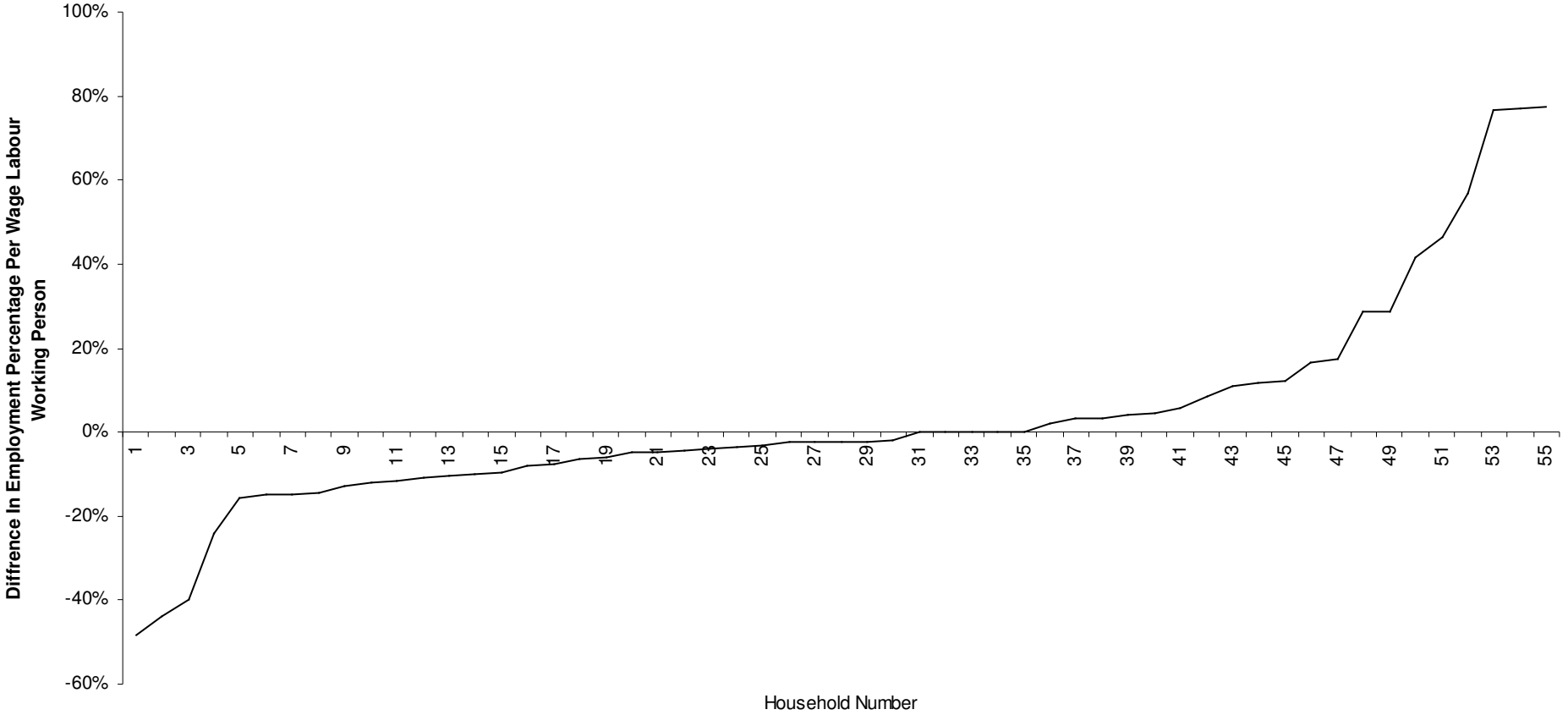
30	Hedoshi	0	114	0	0	0.00	0.00	0.00
31	Hedoshi	0	93	0	0	0.00	0.00	0.00
36	Hedoshi	0	101	0	4800	0.00	0.00	0.00
64	Phansidand	0	94	0	200	0.00	0.00	0.00
75	Mahagaon	1	108	660	770	6.11	6.11	0.00
88	Ambeghar	1	109	1150	1330	10.55	10.56	0.01
29	Hedoshi	2	118	600	680	2.54	2.70	0.16
60	Phansidand	2	87	780	1200	4.48	4.76	0.28
61	Phansidand	2	90	350	750	1.94	2.98	1.03
114	Wafeghar	3	115	940	1440	2.72	3.81	1.08
47	Ambeghar	1	85	760	1400	8.94	11.11	2.17
97	Uddhar	1	98	540	975	5.51	7.74	2.23
39	Hedoshi	2	119	1055	2000	4.43	7.94	3.50
35	Hedoshi	2	103	635	1680	3.08	6.67	3.58
66	Phansidand	3	84	865	2750	3.43	7.28	3.84
89	Ambeghar	3	109	2260	4500	6.91	11.90	4.99
96	Uddhar	1	109	400	1700	3.67	13.49	9.82
33	Hedoshi	1	94	150	1500	1.60	11.90	10.31
9	Tareghar	2	111	2273	5500	10.24	21.83	11.59
113	Wafeghar	1	113	60	2800	0.53	22.22	21.69
7	Tareghar	1	93	2962	6840	31.85	54.29	22.44
4	Khandad	2	104	1300	7350	6.25	29.17	22.92
68	Mahagaon	1	122	90	3500	0.74	27.78	27.04
6	Tareghar	1	103	0	4800	0.00	38.10	38.10
10	Tareghar	1	113	1149	6100	10.17	48.41	38.24
56	Dhawate	1	117	3250	13680	27.78	108.57	80.79
Average						7.75	10.05	2.30
Standard Deviation						8.31	17.88	16.05

Data Table 16: Effect of Recall Period on Wage Work Days Data							
HH No.	No. of Persons in Wage Labour	Data Days	Total Wage Work Days-HRK (Monsoon)	Yearly Recall-Monsoon	Daily Recall Percentage	Yearly Recall Percentage	Difference in Percentage Points (Yearly - Daily)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
2	1	100	80	40	80%	32%	-48%
41	1	113	70	23	62%	18%	-44%
84	3	83	106	10	43%	3%	-40%
1	2	112	75	24	33%	10%	-24%
5	3	103	62	16	20%	4%	-16%
32	2	96	41	16	21%	6%	-15%
11	3	102	78	40	25%	11%	-15%
48	1	87	29	24	33%	19%	-14%
12	1	101	45	40	45%	32%	-13%
77	3	114	49	8	14%	2%	-12%
83	3	80	34	10	14%	3%	-12%
69	3	94	30	0	11%	0%	-11%
34	2	99	21	0	11%	0%	-11%
70	3	117	35	0	10%	0%	-10%
28	2	107	21	0	10%	0%	-10%
91	3	104	38	15	12%	4%	-8%
3	2	106	31	18	15%	7%	-7%
73	2	119	29	15	12%	6%	-6%
39	2	119	52	40	22%	16%	-6%
38	2	113	11	0	5%	0%	-5%
72	2	112	15	5	7%	2%	-5%
71	3	115	42	30	12%	8%	-4%
37	2	114	9	0	4%	0%	-4%
43	1	116	4	0	3%	0%	-3%
90	2	109	40	38	18%	15%	-3%
49	1	90	13	15	14%	12%	-3%
67	3	122	42	34	11%	9%	-2%

88	1	109	19	19	17%	15%	-2%
59	2	87	4	0	2%	0%	-2%
8	2	100	42	48	21%	19%	-2%
98	2	112	18	20	8%	8%	0%
30	0	114	0	0	0%	0%	0%
31	0	93	0	0	0%	0%	0%
36	0	101	0	80	0%	0%	0%
64	0	94	0	8	0%	0%	0%
29	2	118	11	17	5%	7%	2%
114	3	115	33	48	10%	13%	3%
4	2	104	80	105	38%	42%	3%
35	2	103	37	56	18%	22%	4%
75	1	108	14	22	13%	17%	4%
47	1	85	14	28	16%	22%	6%
61	2	90	6	30	3%	12%	9%
60	2	87	14	48	8%	19%	11%
89	3	109	39	90	12%	24%	12%
66	3	84	13	65	5%	17%	12%
97	1	98	14	39	14%	31%	17%
9	2	111	58	110	26%	44%	18%
33	1	94	3	40	3%	32%	29%
56	1	117	61	102	52%	81%	29%
7	1	93	47	116	51%	92%	42%
10	1	113	73	140	65%	111%	47%
96	1	109	14	88	13%	70%	57%
6	1	103	19	120	18%	95%	77%
68	1	122	3	100	2%	79%	77%
113	1	113	2	100	2%	79%	78%


Graph Showing Effect of Recall Period on Wage Labour Income Data
Difference in Wage Income In Rs. Per Person Per Da
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
-20.00
-30.00
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
51
53
Household Number

Graph Showing Effect of Recall Period on Wage Labour Work Days Data



Data Table 17 - Wadi Wise Distribution of Wage Labour Days and Income (Based on HRK Data)											
Wadi	Number of Sample HHs	Data Days	Farm Wage Days	Non Farm Wage Days	Total Wage Labour Days		Percentage Employment (of Data Days)	Minimum HH Income	Maximum HH Income	Total Income of All HH	Average Earning Per Household Per Day
1	2	3	4	5	6	7	8	9	10	11	
Phansidand	5	442	13	24	37	0	8%	0	865	2155	0.98
Wafeghar	2	228	35	0	35	0	15%	60	940	1000	2.19
Uddhar	3	319	12	34	46	0	14%	400	800	1740	1.82
Hedoshi	14	1500	107	173	280	0	19%	0	3630	10145	0.48
Mahagaon	9	1023	200	59	259	0	25%	90	2620	12800	1.39
Arebudruk	2	163	47	93	140	0	86%	880	2950	3830	11.75
Khandad	5	525	90	238	328	0	62%	1300	3229	9888	3.77
Taregahar	7	723	150	212	362	0	50%	0	4709	14428	2.85
Ambeghar	7	693	71	121	192	0	28%	760	5285	14932	3.08
Dhawate	1	117	0	61	61	0	52%	-	-	3250	27.77
Total	55	5733	725	1015	1740	0	-	-	-	74168	

Data Table 18 - Wage Labour - Monsoon 2003 (Based on HRK Data) -Age, Gender, and Relationship Wise Distribution of Wage Labour and Wage Income								
Relationship Within the HH	Persons Participating in any one of the Livelihood Activities (Adults)	Persons Participating in any one of the Livelihood Activities (Children)	Total Work Force	Non Wage Working Pesons - Number	Wage Labour Working Persons Total	Wage Labour Working Persons (Children Only)	Total Working Persons	Income in Rs.of Wage Working Persons
Head of HH - Male	54	0	54	11	43		54	47824
Pecentage of Total Working Persons (Male)				**-**	**-**		**64%**	**76%**
Son -1	14	9	22	7	15	5	22	7540
Son - 2	5	2	8	1	7	1	8	6944
Son in law -1	1	0	1	-	1		1	210
Total Working Persons - Male	**74**	**11**	**85**	**19**	**66**	**6**	**85**	**62518**
Percentage (to total working persons male)				**22%**	**78%**		**100%**	**-**
Percentage of Male to Total Working Persons (Male + Female)				**-**	**68%**		**56%**	**84%**
Wife (2 women are Head of HHs)	43	1	44	22	22		44	7520
Pecentage of Total Working Persons (Female)				**-**	**-**		**66%**	**64%**
Mother	4	0	4	3	1		4	-
Daughter -1	2	10	12	6	5	3	11	3500
Daughter - 2	0	4	4	3	2	2	5	605
Daughter-in-law 1	1	0	1	1	-		1	-
Sister 1	0	1	1	-	1	1	1	25
Mother-in-law	1	0	1	1	-		1	-
Total Working Persons - Female	**51**	**16**	**67**	**36**	**31**	**6**	**67**	**11650**
Pecentage (to total working persons - female)				**54%**	**46%**		**100%**	**-**
Percentage of Female to Total Working Persons (Male + Female)				**-**	**32%**		**44%**	**16%**
Total Working Persons (Male + Female)			**152**	**55**	**97**	**12**	**152**	74168

Data Table 19 - Gender Disparity in Wage Labour (Based on Daily Recall HRK Data - Monsoon)				
Data Table 19 - Gender Disparity in Wage Labour (Based on Daily Recall HRK Data - Monsoon)	Number of the Persons in the Sample	Percentage to Total Number of Persons	Average Employment Rate	Average Wage Rate
Head of Household (male)	54	36%	24%	50.71
Son-1	22	14%	12%	44.83
Son-2	8	5%	18%	50.76
Son in law-1	1	1%	5%	52.50
Average Wage Labour Working Men			**15%**	**49.70**
Wife	44	29%	9%	34.75
Daughter-1	11	7%	15%	43.82
Daughter-2	5	3%	5%	53.06
Sister-1	1	1%	1%	25.00
Mother	4	3%	6%	Nil
Daughter in law-1	1	1%	Nil	Nil
Mother in law	1	1%	Nil	Nil
Average Wage Labour Working Women			**7%**	**39.16**
Total		**100%**		

Data Table 20 - Number of Wage Work Days Season Wise - (Based on Yearly Recall)							
Wadi	**No. Of HH**	**Monsoon**	**Winter**	**Summer**	**All Year**	**Work Days Per HH**	**Employment Percentage**
Dhawate	1	102	120	90	312	312	85%
Tareghar	7	614	515	515	1644	235	64%
Wafeghar	2	148	53	92	293	147	40%
Khandad	5	203	249	196	648	130	36%
Ambeghar	7	229	288	350	867	124	34%
Phansidand	5	151	210	242	603	121	33%
Uddhar	3	147	65	52	264	88	24%
Hedoshi	14	272	301	318	891	64	17%
Mahagaon	9	214	233	106	553	61	17%
Arebudruk	2	20	45	20	85	43	12%
Grand Total	55	2100	2079	1981	6160	**132**	
Percentage		**34%**	**34%**	**32%**	**100%**		**36%**

Data Table 21 - Season WiseType of Work Done in Wage Labour by Household (Yearly Recall)						
Type of Work / Season	Early Monsoon	Late Monsoon	Early Winter	Late Winter	Early Summer	Late Summer
Farm Wage Labour	41	31	34	30	23	18
Percentage to Total No. of HHs	**75%**	**56%**	**62%**	**55%**	**42%**	**33%**
Non-Farm Wage Labour	3	5	9	8	10	11
Percentage to Total No. of HHs	**5%**	**9%**	**16%**	**15%**	**18%**	**20%**
Not Engaged in Wage Labour	11	19	12	17	22	26
Percentage to Total No. of HHs	**20%**	**35%**	**22%**	**31%**	**40%**	**47%**

Data Table 22 - Frequency Distribution of Sources of Information for Wage Labour (Yearly Recall)				
Farm		**Non Farm**		
Employer	Other Villagers	Employer	Other Villagers	No Response
46	**9**	**28**	**5**	**23**
84%	**16%**	**51%**	**9%**	**42%**

Data Table 23 - Difficulties Face in Wage Labour Work Place (Yearly Recall)					
	Accident	Beating and Bad Mouthing	Payments Not Made in Time	Payments Not Made at all	Total Responses
Number of Response	5	1	6	6	18

Data Table 24 - Health Problems Due to Wage Labour Work (Yearly Recall)

Type of Illness	Persons suffered			Source of Treatment			Expenses Paid By		Expenses
	Male	Female	Children	Government Doctor	Private Doctor	Traditional Healer	Household	Employer	
Weakness	-	1	-	1	-	-	1	-	Nil
	1	-	-	-	1	-	1	-	200
Fever	-	-	1	-	1	-	1	-	300
	1	-	-	-	1	-	1	-	100
Accident	-	-	1	-	1	-	1	-	360
Other	1	-	-	-	1	-	1	-	150
	1	-	-	-	-	1	1	-	Nil
Total	**4**	**1**	**2**	**1**	**5**	**1**	**7**	**-**	**-**

Data Table 25 - Frequency Distribution of HH Wise Earnings From Wage Labour (Based on Yearly Recall Data)									
Hamlet	HH No.	Early Monsoon	Late Monsoon	Early Winter	Late Winter	Early Summer	Late Summer	Total Income	Class Frequency
No Income from Wages									
Hedoshi	28	0	0	0	0	0	0	0	9 HH
Hedoshi	30	0	0	0	0	0	0	0	
Hedoshi	31	0	0	0	0	0	0	0	
Hedoshi	34	0	0	0	0	0	0	0	
Hedoshi	37	0	0	0	0	0	0	0	
Hedoshi	38	0	0	0	0	0	0	0	
Hedoshi	43	0	0	0	0	0	0	0	
Mahagaon	69	0	0	0	0	0	0	0	
Mahagaon	70	0	0	0	0	0	0	0	
Between Rs. 200 to Rs. 1000									
Phanshidand	64	200	0	0	0	0	0	200	4 HH
Khandad	3	240	300	0	0	0	0	540	
Arebudruk	84	300	0	300	300	0	0	900	
Mahagaon	72	175	0	245	560	0	0	980	
Between Rs. 1000 to Rs. 2000									
Uddhar	98	250	250	350	175	100	0	1125	10 HH
Uddhar	97	375	600	100	100	0	0	1175	
Phanshidand	59	0	0	300	300	300	300	1200	
Hedoshi	29	440	240	240	480	0	0	1400	
Mahagaon	77	280	0	280	280	280	280	1400	
Khandad	2	1440	0	0	0	0	0	1440	
Ambeghar	49	525	0	525	525	0	0	1575	
Mahagaon	75	350	420	280	175	175	175	1575	
Arebudruk	83	300	0	450	300	300	300	1650	
Khandad	5	240	240	240	1200	0	0	1920	
Between Rs. 2000 to Rs. 4000									
Hedoshi	41	600	320	720	0	640	0	2280	11 HH
Mahagaon	73	525	0	525	525	400	400	2375	
Ambeghar	88	1120	210	1050	0	0	0	2380	
Hedoshi	35	1200	480	1050	0	120	0	2850	
Uddhar	96	1200	500	350	120	560	280	3010	

Ambeghar	91	1050	0	1050	1050	0	0	3150	
Tareghar	12	600	600	600	600	600	600	3600	
Hedoshi	33	900	600	1500	600	0	0	3600	
Phanshidand	60	600	600	600	600	600	600	3600	
Phanshidand	61	600	150	600	480	900	900	3630	
Mahagaon	71	700	200	1400	700	700	0	3700	
Between Rs. 4000 to Rs. 10,000									
Mahagaon	67	1050	100	1260	525	350	1050	4335	
Hedoshi	39	1250	750	1000	600	600	280	4480	
Wafeghar	114	720	720	900	800	800	800	4740	
Wafeghar	113	1400	1400	0	0	1280	800	4880	
Mahagaon	68	2100	1400	1400	0	0	0	4900	9 HH
Ambeghar	47	400	1000	1500	400	1500	1500	6300	
Tareghar	6	2400	2400	600	600	600	600	7200	
Ambeghar	48	1400	200	1600	1600	1600	1600	8000	
Phanshidand	66	2250	500	2250	300	500	2250	8050	
Between Rs. 10,000 to Rs. 20,000									
Tareghar	9	4500	1000	1500	1500	1200	1750	11450	
Hedoshi	36	2400	2400	1800	1800	1800	1800	12000	
Tareghar	11	1500	400	3000	2000	3000	3000	12900	
Khandad	1	0	1440	2880	2880	2880	2880	12960	7 HH
Hedoshi	32	400	400	2400	2400	4800	4800	15200	
Tareghar	8	1500	900	2700	2700	4200	3600	15600	
Tareghar	7	3420	3420	3420	3420	3120	3120	19920	
More Than Rs. 20,000									
Tareghar	10	3050	3050	5500	3000	3000	3000	20600	
Dhawate	56	12000	1680	2400	2400	2400	1200	22080	
Khandad	4	3500	3850	3850	4200	3500	3500	22400	5 HH
Ambeghar	90	1200	320	2400	2400	15000	15000	36320	
Ambeghar	89	2250	2250	2250	2250	22500	22500	54000	

Data Table 26 - Wadi Wise Distribution of Wage Earnings (Yearly Recall)									
Hamlet	Number of HHs	Early Monsoon	Late Monsoon	Early Winter	Late Winter	Early Summer	Late Summer	Total Income	Income Per HH
Arebudruk	2	600	0	750	600	300	300	2550	1275
Uddhar	3	1825	1350	800	395	660	280	5310	1770
Mahagaon	9	5180	2120	5390	2765	1905	1905	19265	2141
Hedoshi	14	7190	5190	8710	5880	7960	6880	41810	2986
Phanshidand	5	3650	1250	3750	1680	2300	4050	16680	3336
Wafeghar	2	2120	2120	900	800	2080	1600	9620	4810
Khandad	5	5420	5830	6970	8280	6380	6380	39260	7852
Tareghar	7	16370	11170	16720	13220	15120	15070	87670	12524
Ambeghar	7	7945	3980	10375	8225	40600	40600	111725	15961
Dhavate	1	12000	1680	2400	2400	2400	1200	22080	22080
Total	**55**	**62300**	**34690**	**56765**	**44245**	**79705**	**78265**	**355970**	**7473** (average)
Percentage to Total		**18%**	**10%**	**16%**	**12%**	**22%**	**22%**	**100%**	

Data Table 27 - Household Wise Frequency Distribution of Meals Earned in Wage Labour in a Year (Based On Yearly Recall Data)									
Hamlet	HH No.	Early Monsoon	Late Monsoon	Early Winter	Late Winter	Early Summer	Late Summer	Total Meals Earned	Class Frequency
No Meals Earned									
Khandad	1	0	0	0	0	0	0	0	18 HH
Khandad	4	0	0	0	0	0	0	0	
Tareghar	7	0	0	0	0	0	0	0	
Hedoshi	28	0	0	0	0	0	0	0	
Hedoshi	30	0	0	0	0	0	0	0	
Hedoshi	31	0	0	0	0	0	0	0	
Hedoshi	34	0	0	0	0	0	0	0	
Hedoshi	36	0	0	0	0	0	0	0	
Hedoshi	37	0	0	0	0	0	0	0	
Hedoshi	38	0	0	0	0	0	0	0	
Hedoshi	43	0	0	0	0	0	0	0	
Dhawate	56	0	0	0	0	0	0	0	
Phanshidand	60	0	0	0	0	0	0	0	
Mahagaon	67	0	0	0	0	0	0	0	
Mahagaon	69	0	0	0	0	0	0	0	
Mahagaon	70	0	0	0	0	0	0	0	
Mahagaon	71	0	0	0	0	0	0	0	
Arebudruk	84	0	0	0	0	0	0	0	
Less than 100 Meals									
Phanshidand	64	8	0	0	0	0	0	8	15 HH
Khandad	5	8	8	8	0	0	0	24	
Khandad	3	16	20	0	0	0	0	36	
Phanshidand	59	0	0	12	12	12	12	48	
Mahagaon	72	10	0	14	32	0	0	56	
Ambeghar	90	60	0	0	0	0	0	60	
Ambeghar	88	32	6	30	0	0	0	68	
Hedoshi	29	22	12	12	24	0	0	70	
Khandad	2	80	0	0	0	0	0	80	

Mahagaon	77	16	0	16	16	16	16	80	
Ambeghar	49	30	0	30	30	0	0	90	
Mahagaon	75	20	24	16	10	10	10	90	
Uddhar	98	20	20	28	14	8	0	90	
Uddhar	97	30	48	8	8	0	0	94	
Ambeghar	91	30	0	30	35	0	0	95	
100 to 200 Meals									
Arebudruk	83	20	0	30	20	20	20	110	8 HH
Hedoshi	41	30	16	36	0	32	0	114	
Mahagaon	73	30	0	30	30	20	20	130	
Tareghar	8	60	36	36	30	0	0	162	
Tareghar	11	60	20	60	0	40	0	180	
Hedoshi	39	50	30	30	30	30	14	184	
Wafeghar	113	0	80	0	0	64	40	184	
Hedoshi	33	60	40	60	40	0	0	200	
200 to 400 Meals									
Ambeghar	48	40	8	40	40	40	40	208	10 HH
Wafeghar	114	48	48	60	60	0	0	216	
Hedoshi	35	80	60	70	0	8	0	218	
Tareghar	12	40	40	40	40	40	40	240	
Uddhar	96	96	80	56	16	0	0	248	
Ambeghar	47	16	40	60	16	60	60	252	
Phanshidand	61	40	20	40	32	60	60	252	
Mahagaon	68	120	80	80	0	0	0	280	
Tareghar	6	120	120	24	24	24	24	336	
Tareghar	9	180	40	60	60	20	20	380	
More Than 400 Meals									
Tareghar	10	140	140	140	0	0	0	420	4 HH
Ambeghar	89	90	90	90	90	90	90	540	
Hedoshi	32	16	10	40	40	241	240	587	
Phanshidand	66	140	40	180	24	40	180	604	

Data Table 28 - Season Wise Wage Rate Fluctuations - (Yearly Recall)							
Wage Rate in Rs.	**Number of Households Reporting**						**Total**
	Early Monsoon	Late Monsoon	Early Winter	Late Winter	Early Summer	Late Summer	
15	-	1	-	-	-	-	**1**
20	-	1	-	-	-	-	**1**
25	6	6	6	5	4	3	**30**
30	10	5	6	5	3	2	**31**
35	9	3	9	7	5	4	**37**
40	4	6	4	5	7	6	**32**
50	9	9	7	5	4	3	**37**
60	1	2	5	4	5	5	**22**
65	1	1	1	1	1	1	**6**
70	4	2	2	2	1	1	**12**
75	-	-	1	1	1	1	**4**
80	-	-	1	3	1	1	**6**
85	-	-	1	-	-	-	**1**
100	-	-	-	-	1	-	**1**
N.A.	11	19	12	17	22	28	**109**
Total	55	55	55	55	55	55	**330**
Average Wage Rate for the Season	**40.45**	**40.42**	**44.19**	**45.53**	**46.52**	**46.48**	**43.93**
Weighted Average = Rs. 43.93							

Table 29 - Distribution of Own Farm Work Days, Percentage Employment (Based on Daily Recall) - Household Wise					
Wadi	HH no.	Data Days	Total No.Of Members Working	Total No. Of Farm Work Days	Percentage Employment in Own Farm Agricultural Work Per Person
Khandad	1	112	0	0	0%
Khandad	2	100	0	0	0%
Khandad	3	106	0	0	0%
Khandad	4	104	0	0	0%
Khandad	5	103	0	0	0%
Tareghar	7	93	0	0	0%
Tareghar	9	111	0	0	0%
Tareghar	11	102	0	0	0%
Tareghar	12	101	0	0	0%
Hedoshi	41	113	0	0	0%
Ambeghar	48	87	0	0	0%
Ambeghar	90	109	0	0	0%
Ambeghar	91	104	0	0	0%
Wafeghar	114	115	0	0	0%
Ambeghar	89	109	0	0	0%
Tareghar	6	103	3	7	2%
Arebudruk	84	83	3	9	4%
Hedoshi	33	94	2	8	4%
Hedoshi	39	119	2	11	5%
Tareghar	10	113	2	11	5%
Ambeghar	49	90	2	9	5%
Dhawate	56	117	2	12	5%
Uddhar	97	98	3	16	5%
Mahagaon	75	108	2	12	6%
Ambeghar	47	85	2	11	6%
Arebudruk	88	109	2	18	8%
Mahagaon	72	112	3	28	8%

Panshidand	60	87	3	23	9%
Hedoshi	29	118	3	34	10%
Uddhar	96	109	2	24	11%
Mahagaon	68	122	2	30	12%
Panshidand	61	90	3	36	13%
Tareghar	8	100	3	41	14%
Hedoshi	35	103	2	29	14%
Panshidand	64	94	2	29	15%
Mahagaon	77	114	3	53	15%
Mahagaon	69	94	3	44	16%
Mahagaon	70	117	3	58	17%
Uddhar	98	112	1	20	18%
Mahagaon	73	119	3	66	18%
Hedoshi	32	96	3	61	21%
Wafeghar	113	113	3	72	21%
Hedoshi	38	113	3	74	22%
Mahagaon	67	122	3	80	22%
Panshidand	66	84	3	59	23%
Hedoshi	31	93	2	44	24%
Hedoshi	30	114	3	85	25%
Hedoshi	36	101	3	80	26%
Mahagaon	71	115	3	92	27%
Hedoshi	37	114	3	95	28%
Panshidand	59	87	3	75	29%
Arebudruk	83	80	3	73	30%
Hedoshi	43	116	3	112	32%
Hedoshi	34	99	3	97	33%
Hedoshi	28	107	2	89	42%

Table 30 - Own Farm Work Days and Hours (Based on HRK Data) - Age, Gender, and Relationship Wise				
Relationship	Total No. of Persons Engaged in this Activity	Children	Days	Hours / Day
Head (male)	38		820	7
Percentage of Total Male Work Days			**70%**	
Son-1	14	3	217	8
Son-2	6	1	103	8
Son in law-1	1		16	8
Total Male work Days	**59**	**4**	1156	7
Percentage of Total Days (Male + Female)	**56%**		**65%**	
Average Hours Per Day - Male				**8**
Wife	31	1	501	7
Percentage of Total Female Work Days			**79%**	
Daughter-1	7	6	48	5
Daughter-2	3	2	48	6
Daughter in law-1	1		41	6
Mother	2		24	6
Mother- in law	1		10	8
Total Female work Days	**45**	**9**	631	6
Percentage of Total Days (Male + Female)	**44%**		**35%**	
Total Persons	**104**	**13**		
Average Hours Per Day - Female				**6**

Table 31 - Own Farm Work Days (Based on HRK) - Hamlet Wise						
Hamlet	Number of Households in the Sample	Total Data Days of all Households in the Sample	Total Female Work Days	Total Male Work Days	Total Own Farm Work Days	Employment Percentage Per Household (Col. 6/Col.2) / (Col. 3/Col. 2)
1	**2**	**3**	**4**	**5**	**6**	**7**
Khandad	5	525	0	0	0	0
Ambeghar	6	693	7	14	21	3%
Tareghar	7	723	34	25	59	8%
Dhawate	1	117	12	0	12	10%
Uddhar	3	319	15	45	60	19%
Wafeghar	2	228	27	45	72	32%
Mahagaon	9	1023	74	389	463	45%
Phansidand	5	442	91	131	222	50%
Hedoshi	14	1500	349	429	778	52%
Arebudruk	3	163	22	78	100	61%
Total	**55**	**5733**	**631**	**1156**	**1787**	31%
Percentage			**35%**	**65%**		

Table 32 - Number of Other Household Member And External Workers Working on Own Farm - Number of Cases (Based on daily recall)					
Type of Workers	One Member	Two Members	Three Members	More Than Three Members	Total
External Members - Men	11	9	5	5	30
External Members - Women	10	5	3	6	24
Grand Total	**21**	**14**	**8**	**11**	**54**

Note: One case is one household's response for a week, therefore a case can also be referred to as a 'household-week'. If we consider 18 weeks in the observation period, and 40 households engaged in agriculture, the total household-week in the study period is 720.

Table 33 - Most Frequent Type of Work Done on Own Farm in a Week (Based on Daily Recall), No. of Cases		
Work Type	**Responses**	**Percentage**
Applying Fertilizers	1	0%
Treshing	17	1%
Harvesting	20	1%
Transplanting	75	4%
Weeding	78	4%
Rice Nursery Preparation	98	5%
Ploughing	113	6%
Fencing / Bunding	124	7%
Others (gaurding the crops, and watering)	289	15%
No Work Done (HH-member-weeks)	1057	56%
Grand Total	1872	100%

Note : (1) 'Other' work done includes watering the gardens / farms, and gaurding the farms from attack by wild animals; (2) One case is one 'household-member-week'. In all 59 females and 45 males have worked in own-farm cultivation. Therefore the total number of cases is (59+45) X 18 weeks = 1872.

Table 34- Annual Production of Cereals - 2002 (Based on Yearly Recall)						
Hamlet	HH No.	Rice in '*ma'n'*	Total Millet in '*ma'n'*	Total Cereals in '*ma'n'*	Total Cereal Produced (in Kilograms)	Number of Households
Number of Households Not Producing Food Grains From Own-Farm Cultivation						
Mahagaon	70	0	0	0	0	11 HHs
Mahagaon	75	0	0	0	0	
Tareghar	12	0	0	0	0	
Ambeghar	48	0	0	0	0	
Ambeghar	88	0	0	0	0	
Ambeghar	91	0	0	0	0	
Uddhar	97	0	0	0	0	
Wafeghar	114	0	0	0	0	
Khandad	1	0	0	0	0	
Khandad	2	0	0	0	0	
Khandad	4	0	0	0	0	
Number of HHs Earning Less Than 200 Kilograms of Cereals from Own-Farm Cultivation						
Hedoshi	41	0	1	1	40	8 HHs
Uddhar	96	0	1	1	40	
Khandad	5	2	0	2	80	
Ambeghar	90	0	3	3	120	
Hedoshi	35	3	0	3	120	
Phansidand	59	4	0	4	160	
Uddhar	98	4	0	4	160	
Mahagaon	72	0	4	4	160	
Number of HHs Earning 200 to 400 Kilograms of Cereals from Own-Farm Cultivation						
Tareghar	7	5	0	5	200	14 HHs
Khandad	3	5	0	5	200	
Mahagaon	67	0	5	5	200	
Hedoshi	38	5	0	5	200	
Phansidand	66	0	6	6	240	
Hedoshi	33	6	0	6	240	
Tareghar	11	3	4	7	280	
Phansidand	60	7	0	7	280	
Ambeghar	49	7	0	7	280	

Phansidand	61	5	3	8	320	
Ambeghar	47	8	0	8	320	
Mahagaon	68	5	4	9	360	
Hedoshi	32	5	4	9	360	
Phansidand	64	0	9	9	360	
Number of HHs Earning 400 to 800 Kilograms of Cereals from Own-Farm Cultivation						
Mahagaon	69	0	10	10	400	10 HHs
Hedoshi	31	5	5	10	400	
Tareghar	6	7	4	11	440	
Tareghar	8	10	1	11	440	
Arebudurk	84	0	13	13	520	
Mahagaon	71	10	5	15	600	
Hedoshi	28	15	0	15	600	
Tareghar	9	10	7	17	680	
Hedoshi	39	15	2	17	680	
Mahagaon	77	10	8	18	720	
Number of HHs Earning 800 to 1600 Kilograms of Cereals from Own-Farm Cultivation						
Mahagaon	73	15	5	20	800	9 HHs
Dhawate	56	20	0	20	800	
Hedoshi	29	20	0	20	800	
Wafeghar	113	20	0	20	800	
Ambeghar	89	20	0	20	800	
Tareghar	10	25	0	25	1000	
Hedoshi	30	15	15	30	1200	
Hedoshi	36	30	3	33	1320	
Arebudurk	83	6	30	36	1440	
Number of HHs Earning More Than 1600 Kilograms of Cereals from Own-Farm Cultivation						
Hedoshi	43	70	0	70	2800	3 HHs
Hedoshi	37	100	0	100	4000	
Hedoshi	34	100	12	112	4480	

Table 35 - Annual Production of Cereals - 2002 - Hamlet Wise (Yearly Recall Data)			
Hamlet	Total Number of Households in the Sample	Total in Kilograms	Average Per HH in Kilograms
Khandad	5	280	**56**
Uddhar	3	200	**67**
Ambeghar	7	1520	**217**
Phansidand	5	1360	**272**
Mahagaon	9	3240	**360**
Wafeghar	2	800	**400**
Tareghar	7	3040	**434**
Dhawate	1	800	**800**
Arebudruk	2	1960	**980**
Hedoshi	14	17240	**1231**
Grand Total	**55**	**30440**	
Average			**553**

Table 36 - Consumption Pattern Of Food Grains (Percentage of Number of Households) (Yearly Recall Data)			
Number of Months Home Grown Food Grains Suffice	Rice	Millet (Nachani)	Millet (Varai)
0-2 months	-	7%	4%
2-4 months	5%	2%	2%
4-6 months	18%	9%	9%
6-8 months	2%	5%	-
8-10 months	2%	-	-
10-12 months	35%	22%	15%
NA	38%	55%	71%
Grand Total	**100%**	**100%**	**100%**

Table 37 - Sale of Cereals in Kilograms in 2002 - HH Wise (Yearly Recall)						
Hamlet	HH No.	Rice in Kilograms (without husk)	Nachani in Kilograms	Varai in Kilograms	Total Grains	Number of Households in Respective Class
Did Not Sell Any Grains At All						
Phanshidand	59	0	0	0	0	
Phanshidand	60	0	0	0	0	
Khandad	5	0	0	0	0	
Mahagaon	69	0	0	0	0	
Mahagaon	70	0	0	0	0	
Tareghar	6	0	0	0	0	
Tareghar	7	0	0	0	0	
Tareghar	10	0	0	0	0	
Tareghar	12	0	0	0	0	17 HH
Arebudruk	83	0	0	0	0	
Arebudruk	84	0	0	0	0	
Ambeghar	47	0	0	0	0	
Ambeghar	48	0	0	0	0	
Ambeghar	89	0	0	0	0	
Hedoshi	32	0	0	0	0	
Hedoshi	35	0	0	0	0	
Uddhar	96	0	0	0	0	
Sold Negligible Amount - 1 to 20 Kilograms						
Phanshidand	64	10	0	0	10	32 HH
Phanshidand	66	10	0	0	10	
Khandad	1	10	0	0	10	
Khandad	2	10	0	0	10	
Khandad	3	10	0	0	10	
Mahagaon	73	10	0	0	10	
Mahagaon	75	10	0	0	10	
Ambeghar	49	10	0	0	10	
Ambeghar	88	10	0	0	10	
Ambeghar	91	10	0	0	10	
Hedoshi	28	10	0	0	10	

Hedoshi	29	10	0	0	10	
Hedoshi	31	10	0	0	10	
Hedoshi	33	10	0	0	10	
Hedoshi	37	10	0	0	10	
Hedoshi	39	10	0	0	10	
Hedoshi	41	10	0	0	10	
Hedoshi	43	10	0	0	10	
Hedoshi	38	10	0	0	10	
Uddhar	97	10	0	0	10	
Uddhar	98	10	0	0	10	
Wafeghar	114	10	0	0	10	
Mahagaon	72	10	0	2	12	
Phanshidand	61	10	10	0	20	
Khandad	4	10	10	0	20	
Mahagaon	71	10	10	0	20	
Tareghar	8	10	10	0	20	
Tareghar	9	10	10	0	20	
Tareghar	11	10	10	0	20	
Dhawate	56	10	10	0	20	
Ambeghar	90	10	10	0	20	
Wafeghar	113	10	10	0	20	
Sold Grains - 100 to 500 Kilograms						
Mahagaon	68	0	0	80	80	5 HH
Mahagaon	77	10	0	75	85	
Mahagaon	67	10	10	80	100	
Hedoshi	36	160	0	0	160	
Hedoshi	30	10	250	190	450	
More than 500 Kilograms						
Hedoshi	34	2800	0	0	2800	1 HH

Table 38 - Sale of Cereals in Kilograms in 2002- Hamlet Wise (Yearly Recall Data)	
Hamlet	Total in Kilograms
Arebudruk	0
Dhawate	20
Uddhar	20
Wafeghar	30
Phanshidand	40
Khandad	50
Ambeghar	50
Tareghar	60
Mahagaon	317
Hedoshi	3500
Grand Total	**4087**

Table 39 - Income From Sale of Agricultural Produce - 2002 in Rupees (Yearly Recall Data)							
Hamlet	HH No.	Rice	Millets	Vegetables	Fruits	Total	Class Frequency
No Income from Sale of Agricultural Produce							
Phansidand	59	0	0	0	0	0	38 HHs
Phansidand	60	0	0	0	0	0	
Phansidand	61	0	0	0	0	0	
Phansidand	64	0	0	0	0	0	
Phansidand	66	0	0	0	0	0	
Khandad	1	0	0	0	0	0	
Khandad	2	0	0	0	0	0	
Khandad	3	0	0	0	0	0	
Khandad	4	0	0	0	0	0	
Khandad	5	0	0	0	0	0	
Mahagaon	69	0	0	0	0	0	
Mahagaon	70	0	0	0	0	0	
Mahagaon	71	0	0	0	0	0	
Mahagaon	73	0	0	0	0	0	
Mahagaon	75	0	0	0	0	0	
Mahagaon	72	0	0	0	0	0	
Tareghar	6	0	0	0	0	0	
Tareghar	7	0	0	0	0	0	
Tareghar	8	0	0	0	0	0	
Tareghar	10	0	0	0	0	0	
Tareghar	12	0	0	0	0	0	
Arebudurk	84	0	0	0	0	0	
Dhawate	56	0	0	0	0	0	
Ambeghar	48	0	0	0	0	0	
Ambeghar	49	0	0	0	0	0	
Ambeghar	88	0	0	0	0	0	
Ambeghar	91	0	0	0	0	0	
Hedoshi	29	0	0	0	0	0	
Hedoshi	32	0	0	0	0	0	
Hedoshi	33	0	0	0	0	0	

Hedoshi	35	0	0	0	0	0	
Hedoshi	39	0	0	0	0	0	
Hedoshi	41	0	0	0	0	0	
Uddhar	96	0	0	0	0	0	
Uddhar	97	0	0	0	0	0	
Uddhar	98	0	0	0	0	0	
Wafeghar	113	0	0	0	0	0	
Wafeghar	114	0	0	0	0	0	
Between Rs. 100 to Rs. 1000							
Mahagaon	67	0	500	0	0	500	3 HHs
Mahagaon	68	0	640	0	0	640	
Mahagaon	77	0	675	0	0	675	
Between Rs. 1500 to Rs. 5000							
Arebudurk	83	0	0	1500	0	1500	8 HHs
Ambeghar	89	0	0	1800	0	1800	
Ambeghar	47	0	0	2000	0	2000	
Hedoshi	36	800	0	2000	0	2800	
Tareghar	9	0	0	4000	0	4000	
Ambeghar	90	0	0	4000	0	4000	
Hedoshi	28	0	0	4000	0	4000	
Hedoshi	38	0	0	4700	0	4700	
Between Rs. 5000 to Rs. 10000							
Hedoshi	43	0	0	5000	0	5000	3 HHs
Tareghar	11	0	0	5850	0	5850	
Hedoshi	30	0	2000	5000	0	7000	
More Than 10000							
Hedoshi	37	0	0	11500	0	11500	3 HHs
Hedoshi	34	12000	0	600	0	12600	
Hedoshi	31	0	0	25000	6000	31000	

Table 40 - Income From Sale of Agricultural Produce - 2002 in Rupees, Hamlet Wise (Yearly Recall Data)			
Hamlet	Number of Households Engaged in Sale of Agricultural Produce	Total	Average Per Household
Phansidand		-	
Khandad		-	
Dhawate		-	
Uddhar		-	
Wafeghar		-	
Arebudurk	1	1500	1500
Mahagaon	3	1815	605
Ambeghar	3	7800	2600
Tareghar	2	9850	4925
Hedoshi	8	78600	9825
Grand Total	**17**	**99565**	

Table 41 - Land Holding Area Wise						
Land Holding Type	**Land Area (No. of Farms)**					
	Half Acre	Half to One Acre	One to Two Acre	More Than Two Acre	Total No. of Farms Type Wise	Percentage to Total Land Holding Type Wise (Col. 6)
1	**2**	**3**	**4**	**5**	**6**	**7**
Ancestral Land	7	3	2	3	15	**18%**
Dali Land	5	11	3	3	22	**26%**
Encroached Land	4	5	3	1	13	**15%**
Tenancy Land	2	3	3	4	12	**14%**
Sharecropping	6	7	9	0	22	**26%**
Total Land Area Wise	24	29	20	11	84	**100%**
Percentage to Total, Land Area Wise	**29%**	**35%**	**24%**	**13%**	**100%**	

Table 42 - Access to Irrigation			
Land Holding Type	**Irrigation Status (No. of Farms)**		
	Having Irrigation	Not Having Irrigation	Total
1	**2**	**3**	**4**
Ancestral Land	5	10	15
Dali Land	4	18	22
Encroached Land	0	13	13
Tenancy Land	2	10	12
Sharecropping	7	15	22
Total	18	66	84
Percentage to Total	**21%**	**79%**	**100%**

Table 43 - Ownership Status of Land Held (Yearly Recall)			
Land Holding Type	**Ownership Status (No. of Farms)**		
	Having Clear Title	Not Having Clear Title	Total
1	**2**	**3**	**4**
Ancestral Land or Land Obtained in Land Reforms (Own Lands)	10	5	15
Dali Land	9	13	22
Encroached Land	0	13	13
Tenancy Land	6	6	12
Sharecropping	0	22	22
Total	25	59	84
Percentage to Total	**30%**	**70%**	**100%**

Table 44 - Distance of Farms From Place of Residence (Yearly Recall)					
Land Holding Type	**Distance From Residence (No. of Farms)**				
	Less Than Two Kilometers	Two To Four Kilometers	Four To Six Kilometers	More Than Six Kilometers	Total
1	**2**	**3**	**4**	**5**	**6**
Ancestral Land	11	2	2	0	15
Dali Land	11	9	1	1	22
Encroached Land	8	3	1	1	13
Tenancy Land	12	0	0	0	12
Sharecropping	17	0	3	2	22
Total	59	14	7	4	84
Percentage to Total	**70%**	**17%**	**8%**	**5%**	**100%**

Table 45 - Access To Land (Household Wise) (Yearly Recall)						
Hamlet	HH No.	Engaged in Share Cropping	Owing Ancenstral Land / Land Obtained (Own Land)	Owing Tenancy Land	Accessing Encroached Land	Dali Land
Khandad	1					
Khandad	2					Y
Khandad	3	Y				Y
Khandad	4					Y
Khandad	5					Y
Tareghar	6	Y			Y	
Tareghar	7		Y			
Tareghar	8	Y	Y		Y	
Tareghar	9		Y			Y
Tareghar	10		Y			
Tareghar	11				Y	
Tareghar	12				Y	Y
Hedoshi	28			Y		
Hedoshi	29	Y		Y		
Hedoshi	30	Y		Y	Y	
Hedoshi	31		Y		Y	
Hedoshi	32			Y		
Hedoshi	33		Y	Y		Y
Hedoshi	34		Y	Y		
Hedoshi	35		Y			Y
Hedoshi	36		Y		Y	Y
Hedoshi	37		Y	Y		
Hedoshi	38	Y	Y			
Hedoshi	39		Y			
Hedoshi	41	Y				
Hedoshi	43	Y	Y		Y	
Ambeghar	47	Y				Y
Ambeghar	48					Y

Ambeghar	49	Y				Y
Dhawate	56					Y
Phanshidand	59	Y				
Phanshidand	60					
Phanshidand	61	Y				
Phanshidand	64					Y
Phanshidand	66	Y				Y
Mahagaon	67					Y
Mahagaon	68		Y	Y		Y
Mahagaon	69			Y		
Mahagaon	70				Y	
Mahagaon	71	Y				Y
Mahagaon	72	Y				
Mahagaon	73	Y		Y	Y	Y
Mahagaon	75				Y	
Mahagaon	77	Y			Y	
Arebudruk	83				Y	
Arebudruk	84			Y		
Ambeghar	88					
Ambeghar	89	Y				Y
Ambeghar	90					
Ambeghar	91					Y
Uddhar	96	Y				
Uddhar	97	Y				
Uddhar	98	Y				
Wafeghar	113		Y	Y		Y
Wafeghar	114	Y				
Total		**22**	**15**	**12**	**13**	**22**

Table 46 - Access To Land (Hamlet Wise) (Yearly Recall)							
Hamlet	Number of HHs in the Sample	HHs Accessing Land	Percentage to Total Number of HHs in the Sample in the Hamlet	Engaged in Share Cropping	Owing Ancenstral Land / Land Obtained	Owing Tenancy Land	Accessing Encroached Land
Dhawate	1	-	0%	-	-	-	-
Khandad	5	1	20%	1	-	-	-
Ambeghar	7	3	43%	3	-	-	-
Phanshidand	5	3	60%	3	-	-	-
Mahagaon	9	8	89%	4	1	3	4
Arebudruk	2	2	100%	-	-	1	1
Hedoshi	14	14	100%	5	9	7	4
Tareghar	7	7	100%	2	4	-	4
Uddhar	3	3	100%	3	-	-	-
Wafeghar	2	2	100%	1	1	1	-
Total	**55**	**43**	**78%**	**22**	**15**	**12**	**13**

Table 47 - Share Cropping - Distribution of Households on Basis of Share Given (Yearly Recall)					
Number of Households Engaged in Share Cropping	Half Share	One Third Share	Monetary Compensation	Vegetables Give	Fixed Share
22	4	14	1	1	2

Table 48 - Cropping Pattern In Different Land Types (Yearly Recall)								
Land Type (Based on Ownership)	Number of Land Holder in the Respective Category	Crop Types						Total Number of Cases of Lands Type Wise
		Cereals			**Vegetables**	**Pulses**	**Fruit Trees**	
		Rice	**Nachani**	**Varai**				
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Ancestral Land	15	10	4	4	8	11	2	39
Percentage to Col. 2		27%	15%	17%	16%	27%	9%	**20%**
Dali Land	22	4	7	6	11	7	12	47
Percentage to Col. 2		11%	27%	26%	22%	17%	55%	**24%**
Encroached Land	13	5	4	3	10	7	-	29
Percentage to Col. 2		14%	15%	13%	20%	17%	-	**15%**
Tenancy Land	12	3	3	4	6	3	8	27
Percentage to Col. 2		8%	12%	17%	12%	7%	36%	**14%**
Sharecropping	22	15	8	6	16	13	-	58
Percentage to Col. 2		41%	31%	26%	31%	32%	-	**29%**
Total Number of Cases - Crop Wise		37	26	23	51	41	22	200
Percentage to Above Total in Col. 9		**19%**	**13%**	**12%**	**26%**	**21%**	**11%**	**100%**

Table 49 - SEED INPUTS IN AGRICULTURE (Yearly Recall)			
	Seeds Sourced from Home Stock	Seeds Bought Purchased from the Market	Total
No. of Households	26	7	33
Total Kilograms	1303	397	1700
Average Per Household	50	57	52

Table 50 - Expenses Incurred in Cultivation of Rice and Vegetables on Seeds and Fertilizers (in Rupees) (Yearly Recall)				
	Number of HHs	Expenses for Fertilizers (Rice)	Expenses for Fertilizers (Vegetables)	Expenses for Seeds (Vegetables)
Total	18	5940	3489	1951
Average Per Household		330	194	108

Table 51 - Frequency Distribution of HHs Having Access to Irrigation By Source		
Hamlet	Canal	Stream / Nala
Mahagaon	-	1
Wafeghar	2	-
Uddhar	1	-
Ambeghar	3	-
Hedoshi	3	3
Grand Total	**9**	**4**

Table 52 Possesion of Agricultural Equipment		
Hamlet	Plough	Threshing Machine
Arebudruk	1	0
Wafeghar	2	0
Tareghar	1	1
Hedoshi	6	1
Mahagaon	7	1
Grand Total	**17**	**3**

Table 53 - Animal Husbandary Work Days (Based on HRK Data) - Household Wise					
Hamlet	HH No.	Number of Persons Engaged in This Activity in the Household	Number of Data Days	No. of Days of Work in This Activity	Employment Percentage Per Person
Khandad	1	0	112	0	0%
Khandad	2	0	100	0	0%
Khandad	3	0	106	0	0%
Khandad	4	0	104	0	0%
Khandad	5	0	103	0	0%
Tareghar	7	0	103	0	0%
Tareghar	8	0	93	0	0%
Tareghar	9	0	100	0	0%
Tareghar	10	0	111	0	0%
Tareghar	11	0	113	0	0%
Tareghar	12	0	102	0	0%
Tareghar	13	0	101	0	0%
Hedoshi	28	0	107	0	0%
Hedoshi	29	0	118	0	0%
Hedoshi	31	0	93	0	0%
Hedoshi	32	0	96	0	0%
Hedoshi	33	0	94	0	0%
Hedoshi	38	0	113	0	0%
Hedoshi	39	0	119	0	0%
Hedoshi	41	0	113	0	0%
Ambeghar	48	0	87	0	0%
Phansidand	59	0	87	0	0%
Phansidand	61	0	90	0	0%
Phansidand	64	0	94	0	0%
Mahagaon	70	0	117	0	0%
Mahagaon	75	0	108	0	0%
Arebudruk	84	0	83	0	0%
Ambeghar	88	0	109	0	0%
Ambeghar	91	0	104	0	0%

Wafeghar	114	0	115	0	0%
Dhawate	56	2	117	10	4%
Hedoshi	30	3	114	16	5%
Uddhar	96	2	109	14	6%
Mahagaon	71	3	115	25	7%
Hedoshi	43	3	116	27	8%
Ambeghar	49	2	90	14	8%
Hedoshi	35	1	103	10	10%
Phansidand	66	1	84	10	12%
Hedoshi	34	3	99	41	14%
Mahagaon	72	3	112	48	14%
Mahagaon	67	2	122	42	17%
Ambeghar	89	3	109	57	17%
Hedoshi	37	2	114	40	18%
Uddhar	97	1	98	18	18%
Mahagaon	77	3	114	65	19%
Arebudruk	83	2	80	34	21%
Mahagaon	69	2	94	40	21%
Mahagaon	73	3	119	97	27%
Mahagaon	68	1	122	39	32%
Hedoshi	36	2	101	66	33%
Phansidand	60	2	87	61	35%
Ambeghar	90	2	109	88	40%
Ambeghar	47	2	85	76	45%
Wafeghar	113	1	113	86	76%
Uddhar	98	1	112	87	78%

Table 54 - Animal Husbandary Work Days(Based on HRK Data)-Hamlet Wise						
Hamlet	No. of HHs in the Sample from the Hamlet	Number of HHs Engaged in Animal Husbandry (Daily Recall - Monsoon 2003)	Data Days	Animal Husbandary Work Days	Percentage Employment	Total Hours of Work
Khandad	5	-	525	-	-	-
Tareghar	7	-	723	-	-	-
Dhawate	1	2	117	9	8%	45
Hedoshi	14	14	1500	200	13%	1846
Phansidand	5	3	442	71	15%	865
Arebudruk	2	2	163	35	21%	552
Ambeghar	7	9	693	235	32%	1163
Mahagaon	9	17	1023	356	35%	4122
Uddhar	3	4	319	119	37%	1172
Wafeghar	2	1	228	86	38%	1114
Total	**55**	**52**	**5733**	**1111**		**10879**
Average					**19%**	

Table 55 - Animal Husbandary Work Days (Based on HRK Data) - Age, Gender, and Relationship Wise			
Relationship in HH	**Persons of the Workforce Participating in this Activity**	**Persons of the Workforce Participating in this Activity (Children)**	**Total Number of Days**
Head of Household (male)	13	0	181
Son-1	11	2	338
Son-2	4	0	61
Son in law-1	1	0	9
Total Working Days Male	**29**	**2**	589
Percentage of Total Days			**53%**
Wife	13	0	194
Daughter-1	5	4	145
Daughter-2	3	2	134
Mother	1	0	31
Mother in law	1	0	18
Total Working Days Female	**23**	**6**	523
Percentage of Total Days			**47%**
Total Working Persons	**52**	**8**	**59**
Total Working Days			1111

Table 56 - Output From Animal Husbandary - Income from Sale of Animals in Rupees (Yearly Recall)							
Hamlet	**No. of HH Earning Cash Income from Animal Husbandry**	**Eggs Consumed (based on daily recall)**	**Sheep / Goat**	**Cattle**	**Buffaloes**	**Poultry**	**Total**
Panshidand	3	11	-	-	-	-	-
Mahagaon	-	-	-	-	-	-	-
Tareghar	-	-	-	-	-	-	-
Arebudruk	-	-	-	-	-	-	-
Dhawate	1	-	8000	-	-	-	8000
Ambeghar	2	-	3000	-	-	2000	5000
Hedoshi	2	40	-	-	-	-	-
Uddhar	-	-	-	-	-	-	-
Wafeghar	1	-	-	800	2500	-	3300
Khandad	-	-	-	-	-	-	-
Grand Total	**9**	**51**	**11000**	**800**	**2500**	**2000**	**16300**

Table 57 - Households Engaged in Animal Husbandary (Based on Yearly Recall)		
Hamlet	**Total Households**	**Engaged in Animal Husbandary**
Dhawate	1	1
Khandad	5	1
Tareghar	7	2
Arebudruk	2	2
Uddhar	3	2
Wafeghar	2	2
Panshidand	5	4
Ambeghar	7	4
Mahagaon	9	6
Hedoshi	14	8
Grand Total	55	32
Percentage	**100%**	**58%**

Table 58 - Household Wise, and Hamlet Wise Livestock Inventory (Yearly Recall)

Hamlet	Sheep/goat					Cattle					Buffaloes					Poultry				
		Changes in One Year					Changes in One Year					Changes in One Year					Changes in One Year			
	No .of Animals At Time of Observation	Purchased	Kept	Born	Died	No .of Animals At Time of Observation	Purchased	Kept	Born	Died	No .of Animals At Time of Observation	Purchased	Kept	Born	Died	No .of Animals At Time of Observation	Purchased	Kept	Born	Died
Panshidand	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	22	1	1	1	1
Mahagaon	8	-	1	-	-	12	-	8	2	1	2	-	-	-	-	42	2	1	29	-
Dhawate	13	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Ambeghar	11	3	17	3	3	2	-	-	-	-	-	-	-	-	-	18	-	-	-	26
Uddhar	-	-	12	-	1	7	-	-	1	-	4	-	-	1	1	10	-	-	5	7
Wafeghar	29	-	-	6	1	3	-	-	1	-	2	-	-	1	-	1	-	-	8	40
Grand Total	**61**	**3**	**30**	**9**	**7**	**29**	**-**	**8**	**4**	**1**	**8**	**-**	**-**	**2**	**1**	**93**	**3**	**2**	**43**	**75**

Table 59 - Forest Collection and Fishing Work Days - Household Wise (Based on HRK Data)					
Hamlet	HH No.	Data Days	Number of Persons Engaged in This Activity - Household Wise	Number of Work Days	Employment Percentage Per Person
Tareghar	6	103	1	1	1%
Mahagaon	68	103	1	2	2%
Tareghar	8	100	2	4	2%
Ambeghar	47	83	2	4	2%
Hedoshi	30	93	3	8	3%
Hedoshi	36	87	2	5	3%
Mahagaon	77	98	3	9	3%
Mahagaon	75	114	2	7	3%
Hedoshi	41	117	1	4	3%
Ambeghar	48	109	2	8	4%
Hedoshi	38	90	3	10	4%
Ambeghar	49	104	2	8	4%
Hedoshi	43	108	3	13	4%
Mahagaon	70	99	3	12	4%
Phansidand	60	114	3	14	4%
Mahagaon	72	122	3	15	4%
Arebudruk	83	114	3	16	5%
Mahagaon	69	84	3	12	5%
Hedoshi	31	96	2	10	5%
Phansidand	64	115	3	18	5%
Hedoshi	33	113	2	12	5%
Mahagaon	71	112	3	18	5%
Hedoshi	29	118	2	13	6%
Mahagaon	73	109	2	13	6%
Tareghar	9	111	3	21	6%
Hedoshi	32	94	2	12	6%
Dhawate	56	115	1	8	7%
Hedoshi	28	107	2	15	7%
Arebudruk	84	80	3	19	8%

Tareghar	10	113	2	18	8%
Hedoshi	34	119	3	30	8%
Tareghar	11	102	1	9	9%
Tareghar	12	101	1	9	9%
Hedoshi	35	113	2	22	10%
Uddhar	98	85	3	27	11%
Tareghar	7	93	1	10	11%
Ambeghar	91	101	3	33	11%
Hedoshi	37	87	2	19	11%
Ambeghar	90	122	2	27	11%
Phansidand	66	116	3	39	11%
Ambeghar	88	94	2	23	12%
Phansidand	61	109	3	42	13%
Mahagaon	67	90	3	37	14%
Uddhar	96	87	2	24	14%
Khandad	2	100	3	42	14%
Wafeghar	113	113	2	32	14%
Hedoshi	39	94	2	27	14%
Uddhar	97	109	3	48	15%
Wafeghar	114	112	2	35	16%
Khandad	3	106	3	52	16%
Phansidand	59	117	3	63	18%
Ambeghar	89	119	2	43	18%
Khandad	4	104	3	66	21%
Khandad	5	103	3	79	26%
Khandad	1	112	3	105	31%

Table 60- Forest Collection and Fishing Work Days - Hamlet Wise (Based on HRK Data)						
Hamlet	Total Number of Households in the Sample	Number of Households Engaged in This Activity	Data Days	Number of Persons Engaged in This Activity	No. of Days of Work in This Activity	Employment Percentage Per Household
Dhawate	1	1	442	1	8	7%
Tareghar	7	7	228	11	72	10%
Mahagaon	9	9	319	23	125	12%
Hedoshi	14	14	1500	31	200	13%
Ambeghar	7	7	1023	15	146	20%
Arebudruk	2	2	163	6	35	21%
Wafeghar	2	2	525	4	67	29%
Phansidand	5	5	723	15	176	37%
Uddhar	3	3	693	8	99	54%
Khandad	5	5	117	15	344	66%
Total	**55**	**55**	**5733**	**129**	**1272**	**23%**
Average			104	2.35	24	22%

Table 61- Forest Collection and Fishing Work Days - Age, Gender, and Relationship Wise (Based on HRK Data)			
Relationship in Gender	Number of Persons of the Workforce Participating in this Activity (Adults)	Number of Persons of the Workforce Participating in this Activity (Children)	Total Number of Work Days in This Activity
Head of Household (male)	43	0	435
Son-1	13	6	144
Son-2	4	2	25
Son in law-1	1	0	21
Total Working Days Male	**61**	**8**	**625**
Percentage of Total Days			**49%**
Wife	39	1	399
Daughter-1	3	9	115
Daughter-2	0	3	50
Mother	3	0	23
Sister-1	0	1	38
Mother in law	1	0	22
Total Working Days Female	**46**	**14**	**647**
Total Persons	**107**	**22**	
Percentage of Total Days			**51%**
Total Working Days			**1272**

Table 62- Hours of Work in Forest Collection and Fishing Work Days - Hamlet Wise (Based on HRK Data)						
Hamlet	Total Number of Households in the Sample	Number of Households Engaged in Forest Collection	Data Days	Hours Worked in Forest Collection	Number of Persons Engaged in Forest Collection	No. of Days of Work in Forest Collection
Dhawate	1	1	442	28	1	8
Tareghar	7	7	228	348	11	72
Mahagaon	9	9	319	1139	23	125
Hedoshi	14	14	1500	824	31	200
Ambeghar	7	7	1023	585	15	146
Arebudruk	2	2	163	73	6	35
Wafeghar	2	2	525	435	4	67
Phansidand	5	5	723	924	15	176
Uddhar	3	3	693	275	8	99
Khandad	5	5	117	1121	15	344
Total	**55**	**55**	**5733**	**5752**	**129**	**1272**
Average			104	105	2.35	24

Table 63 - Work Days in Forest Collection - Product Wise (Based on HRK Data)							
Type of Forest Product							
Food	Fuel	Fodder	Fish	Meat (hunting)	Timber	Tree Products	Total
147	346	8	603	226	12	26	**1368**
11%	25%	1%	44%	17%	1%	2%	**100%**
Average Days							
3	6	-	11	4	-	-	**24**

Table 64 - Output from Forest Collection Activity (Yearly Recall)

Hamlet	Number of Households in the Sample	Fuel Wood		Vegetables		Fruits		Fish	
		Sale	Income	Sale	Income	Sale	Income	Sale	Income
		No. of Households	in Rupees	No. of Households	in Rupees	No. of Households	in Rupees	No. of Households	in Rupees
Panshidand	5	-	-	-	-	-	-	1	60
Khandad	5	-	-	-	-	-	-	3	10420
Mahagaon	9	1	500	-	-	5	6202	1	720
Tareghar	7	6	15496	-	-	-	-	1	1500
Arebudruk	2	1	2400	-	-	-	-	-	-
Dhawate	1	-	-	-	-	-	-	-	-
Ambeghar	7	7	15436	6	800	-	-	1	640
Hedoshi	14	7	15560	-	-	-	-	1	300
Uddhar	3	2	1650	-	-	-	-	1	100
Wafeghar	2	-	-	-	-	-	-	-	-
Grand Total		**24**	**51042**	**6**	**800**	**5**	**6202**	**9**	**13740**

Table 65 - Frequency Distribution of Household Member Involved in Forest Collection Work (Yearly Recall)						
Women	Old Women	Men	Old Men	Young Girl	Young Boy	Total Response
38	14	26	8	9	2	**97**
39%	15%	27%	8%	9%	2%	**100%**

Table 66 - Posession of Hunting / Fishing Equipment (Yearly Recall)		
Hamlet	Hunting Equipment	Fishing Nets / Equipment
Panshidand	0	2
Mahagaon	4	3
Tareghar	0	4
Arebudruk	1	0
Dhawate	0	0
Ambeghar	1	1
Hedoshi	1	0
Uddhar	0	0
Wafeghar	0	1
Khandad	1	3
Grand Total	8	14

Table 67 - Frequency Distribution of Type of Bribe Given to Forest Guard in Forest Collection Activity (Yearly Recall)						
Cash	Dinner Party	Forest Produce	Liquor	Grains	Bad Mouthing	Total Responses
8	3	2	3	1	2	**19**
42%	16%	11%	16%	5%	11%	35% (of 55 households)

Table 68 - Cash Expenditure - Food and Non-Food (Based on HRK data)								
Hamlet	HH No.	Effective No. of Adult Persons in HH	Data Days	Food Expenses in Rs.	Non-Food Expenses in Rs.	Total Cash Purchase in Rs.	MPCE	Food Percentage
Phanshidand	60	7.0	95	59	87	146	7	40%
Udhhar	96	7.0	109	268	155	423	17	63%
Wafeghar	113	7.5	113	591	103	694	25	85%
Phanshidand	59	3.5	95	257	30	287	26	90%
Udhhar	98	4.0	112	211	181	392	26	54%
Tareghar	6	5.5	108	405	193	598	30	68%
Hedoshi	31	2.5	108	0	272	272	30	0%
Phanshidand	66	6.5	93	589	68	657	33	90%
Udhhar	97	4.0	98	265	166	431	33	61%
Wafeghar	114	5.0	115	641	32	673	35	95%
Hedoshi	39	3.0	119	330	153	483	41	68%
Mahagaon	70	6.5	121	711	420	1131	43	63%
Phanshidand	64	5.0	103	276	531	807	47	34%
Phanshidand	61	3.0	94	419	38	457	49	92%
Hedoshi	36	4.5	113	528	302	830	49	64%
Hedoshi	33	3.5	97	341	288	629	56	54%
Mahagaon	72	4.5	112	548	395	943	56	58%
Hedoshi	29	4.5	118	744	415	1159	65	64%
Hedoshi	37	5.0	114	833	476	1309	69	64%
Hedoshi	28	3.5	107	727	136	863	69	84%
Tareghar	12	4.0	106	948	52	1000	71	95%
Tareghar	11	5.5	107	1309	272	1581	81	83%
Ambeghar	49	4.0	90	890	122	1012	84	88%
Hedoshi	38	3.0	118	914	140	1054	89	87%
Hedoshi	30	5.0	114	152	1604	1756	92	9%
Hedoshi	32	4.0	105	1305	58	1363	97	96%
Tareghar	8	5.0	104	1464	316	1780	103	82%
Hedoshi	35	2.5	103	353	549	902	105	39%
Mahagaon	77	7.0	114	1990	848	2838	107	70%

Mahagaon	73	6.0	119	2527	162	2689	113	94%
Tareghar	7	2.5	107	1022	28	1050	118	97%
Ambeghar	90	5.0	109	2000	309	2309	127	87%
Mahagaon	67	5.5	122	1683	1221	2904	130	58%
Mahagaon	71	6.5	115	1905	1387	3292	132	58%
Mahagaon	69	3.0	94	786	613	1399	149	56%
Hedoshi	43	7.5	116	1726	2635	4361	150	40%
Tareghar	9	3.5	111	1457	514	1971	152	74%
Ambeghar	91	4.5	109	2277	263	2540	155	90%
Ambeghar	48	2.5	92	1078	156	1234	161	87%
Hedoshi	41	3.0	113	1230	603	1833	162	67%
Ambeghar	88	3.0	109	1532	440	1972	181	78%
Hedoshi	34	5.5	103	2287	1315	3602	191	63%
Khandad	5	5.5	103	3182	424	3606	191	88%
Arebudruk	84	3.0	83	1066	563	1629	196	65%
Tareghar	10	5.0	113	2933	911	3844	204	76%
Arebudruk	83	8.0	80	877	3643	4520	212	19%
Ambeghar	47	2.0	90	1129	151	1280	213	88%
Ambeghar	89	3.5	109	2005	1088	3093	243	65%
Mahagaon	68	2.0	122	1534	647	2181	268	70%
Khandad	1	3.5	107	3131	294	3425	274	91%
Khandad	3	3.0	106	2026	1083	3109	293	65%
Khandad	2	3.5	100	2473	1053	3526	302	70%
Khandad	4	2.5	104	2408	575	2983	344	81%
Dhawate	56	3.0	117	3608	692	4300	368	84%
Mahagaon	75	2.5	112	118	8190	8308	890	1%
Total				**66068**	**37362**	**103430**		
Average		**4.37**					**137**	**64%**

Table 69 - Cash Expenditure - Item Wise Frequency in 'Household-Week' (Based on HRK data)										
Hamlet	HH No.	Major Purchase Items 'This Week' (Three Major Items Every Week was Recorded and Added)								
		Food	Ready Food	Pan Tabacco	Liquor	Non-Food Consumables	Medical Expenses	Education Expenses	Captial Items	Other
Phanshidand	60	4	1	2	-	3	-	-	-	-
Udhhar	96	15	1	10	-	4	-	-	-	-
Wafeghar	113	17	7	8	2	-	-	-	-	-
Phanshidand	59	7	1	-	-	2	-	-	1	-
Udhhar	98	12	1	7	-	11	-	-	-	-
Tareghar	6	9	3	-	-	5	1	-	-	-
Hedoshi	31	2	2	-	-	2	-	-	-	-
Phanshidand	66	10	2	1	-	3	-	-	-	-
Udhhar	97	14	-	8	-	10	-	-	-	-
Wafeghar	114	17	7	8	-	-	-	-	-	-
Hedoshi	39	8	2	1	-	3	-	-	-	-
Mahagaon	70	15	5	3	-	8	-	-	-	-
Phanshidand	64	9	2	4	-	6	-	-	-	-
Phanshidand	61	8	-	5	-	3	-	-	-	-
Hedoshi	36	11	2	1	-	9	-	-	-	-
Hedoshi	33	9	2	-	-	8	-	-	-	-
Mahagaon	72	13	2	2	-	9	-	-	-	-
Hedoshi	29	14	4	-	-	12	-	-	-	-
Hedoshi	37	10	3	2	-	11	-	-	-	-
Hedoshi	28	9	8	-	-	5	-	-	-	9
Tareghar	12	6	-	3	-	2	-	-	-	-
Tareghar	11	12	7	-	-	4	-	-	-	-
Ambeghar	49	13	3	-	-	9	-	-	-	-
Hedoshi	38	14	6	-	-	12	-	-	-	-
Hedoshi	30	8	-	1	-	8	-	-	1	-
Hedoshi	32	11	6	-	-	8	-	-	-	-
Tareghar	8	10	5	3	-	7	-	-	-	-

Hedoshi	35	8	2	1	-	6	-	-	-	-
Mahagaon	77	15	5	1	-	8	-	-	1	-
Mahagaon	73	18	7	3	-	6	-	-	-	-
Tareghar	7	7	-	1	2	2	-	-	-	-
Ambeghar	90	15	10	-	-	8	-	-	-	-
Mahagaon	67	18	17	-	-	15	-	-	-	-
Mahagaon	71	15	2	3	-	9	1	-	-	-
Mahagaon	69	14	3	3	1	7	1	-	-	-
Hedoshi	43	17	5	-	-	15	6	-	2	-
Tareghar	9	13	6	-	-	6	-	-	-	-
Ambeghar	91	15	9	2	-	10	-	-	-	-
Ambeghar	48	11	4	-	-	6	-	-	-	-
Hedoshi	41	11	7	-	-	13	-	-	-	-
Ambeghar	88	15	8	-	-	9	-	-	-	-
Hedoshi	34	16	10	-	-	15	-	-	2	-
Khandad	5	16	12	4	-	13	-	-	-	-
Arebudruk	84	10	1	5	5	9	-	-	-	-
Tareghar	10	15	8	2	-	6	-	-	-	-
Arebudruk	83	12	-	-	-	11	2	-	12	-
Ambeghar	47	11	6	-	-	7	-	-	-	-
Ambeghar	89	14	10	2	-	7	-	-	-	-
Mahagaon	68	16	2	11	1	6	-	-	1	-
Khandad	1	17	12	3	-	14	1	-	-	-
Khandad	3	16	3	-	-	12	1	-	14	-
Khandad	2	16	5	-	-	12	-	-	11	-
Khandad	4	16	9	1	-	10	-	-	10	-
Dhawate	56	15	10	4	13	2	-	-	-	-
Mahagaon	75	5	-	3	-	10	-	-	8	-
Total		**277**	**127**	**37**	**19**	**193**	**10**	**0**	**60**	**0**
Percentage to Total		**38%**	**18%**	**5%**	**3%**	**27%**	**1%**	**0%**	**8%**	**0%**
Total Number of Cases: 723										

Table 70 - Cash Expenditure - Hamlet Wise (Based on HRK data)			
Hamlet	Number of sample households ?	MPCE in Rs.	Food Percentage
Udhhar	3	25	60%
Wafeghar	2	30	90%
Phanshidand	5	32	69%
Hedoshi	14	90	57%
Tareghar	7	108	82%
Ambeghar	7	166	83%
Arebudruk	2	204	85%
Mahagaon	9	210	59%
Khandad	5	281	79%
Dhawate	1	368	84%

Table 71 - Barter (Based on HRK Data)				
No of Times Occuring in 18 Weeks in 55 Households				
Hamlet	HH No.	Grain to Grain	Fish / Meat to Grain	Other
Phansidand	60	1		
Mahagaon	67	2		
Mahagaon	72	1		
Mahagaon	77			
Arebudruk	83	1		
Ambeghar	49	1		
Hedoshi	34		1	
Hedoshi	35	1		
Hedoshi	38	1		
Hedoshi	41	1		
Hedoshi	43			1
Khandad	5	1		
Grand Total		**10**	**1**	**1**

Table 72 - Borrowing (Based on HRK data)					
No of Times Occuring in 18 Weeks in 55 Households					
Hamlet	HH No.	Food items	Cash	Non food items	Grain to Grain
Khandad	6	1			1
Mahagaon	9	12			3
Arebudruk	4		4		2
Dhawate	1		3		
Ambeghar	7	8		1	
Hedoshi	10	6	1	2	3
Uddhar	2	3			
Phansidand	1				1
Grand Total		**30**	**8**	**3**	**10**

Table 73 - Sales - HH Wise (Based on HRK data)							
Hamlet	HH No.	Food Products from Forest Collection / Agriculture	Fish / Meat	Fuel Wood / Tree Products	Liquor	Total Sales in Rs.	Class Frequency
No Income From Sales (Frequency - Number of Times Sold)							
Phansidand	64	-	-	-	-	0	10 HH
Mahagaon	67	-	-	-	-	0	
Mahagaon	68	-	-	-	-	0	
Mahagaon	69	-	-	-	-	0	
Mahagaon	73	-	-	-	-	0	
Tareghar	6	-	-	-	-	0	
Tareghar	8	-	-	-	-	0	
Tareghar	11	-	-	-	-	0	
Arebudruk	84	-	-	-	-	0	
Uddhar	98	-	-	-	-	0	
Less Than Rs. 150							
Uddhar	96	-	-	2	-	20	8 HH
Uddhar	97	-	-	1	-	20	
Tareghar	12	-	-	2	-	100	
Hedoshi	41	2	-	-	-	100	
Hedoshi	39	-	-	3	-	110	
Phansidand	60	-	1	-	-	120	
Tareghar	7	-	-	3	-	120	
Mahagaon	71	2	-	-	-	128	
Between Rs. 300 to 600							
Mahagaon	70	3	-	-	-	320	8 HH
Mahagaon	77	1	1	-	-	336	
Tareghar	9	-	1	4	-	400	
Phansidand	61	1	3	-	-	420	
Phansidand	66	-	4	-	-	480	
Wafeghar	113	-	7	-	1	554	
Phansidand	59	-	3	-	-	560	
Tareghar	10	1	-	6	-	580	
Between Rs. 600 to 1000							
Ambeghar	49	7	1	-	-	675	9 HH

Wafeghar	114	-	10	-	-	698	
Hedoshi	35	5	-	-	-	710	
Hedoshi	33	4	-	-	-	765	
Ambeghar	47	6	-	-	-	785	
Ambeghar	90	4	-	-	-	790	
Ambeghar	48	2	2	2	-	800	
Ambeghar	88	5	-	-	-	840	
Mahagaon	72	2	1	1	-	926	
Between Rs. 1000 to 2000							
Hedoshi	32	4	-	-	-	1040	10 HH
Hedoshi	29	3	-	-	-	1154	
Ambeghar	89	6	-	-	-	1190	
Hedoshi	28	7	-	-	-	1250	
Khandad	3	-	-	-	15	1300	
Dhawate	56	7	-	-	-	1336	
Ambeghar	91	6	-	-	-	1430	
Hedoshi	38	6	-	-	-	1775	
Hedoshi	36	5	-	-	-	1915	
Khandad	1	-	16	-	-	1995	
Between Rs. 2000 to 3500							
Khandad	2	-	1	-	15	2020	7 HH
Khandad	4	-	7	-	12	2140	
Khandad	5	-	12	-	-	2670	
Hedoshi	37	7	-	1	-	2680	
Hedoshi	43	12	-	-	-	3086	
Arebudruk	83	-	1	-	11	3429	
Hedoshi	34	9	-	-	-	3500	
More Than Rs. 4000							
Mahagaon (Shopkeeper)	75	-	-	-	-	4168	3 HH
Hedoshi	30	9	-	-	-	4504	
Hedoshi	31	8	-	-	-	4590	

Table 74 - Sales Hamlet Wise (Based on HRK data)					
No of Times Occuring in 18 Weeks in 55 Households					
Hamlet	Food Products from Forest Collection	Fish / Meat	Fuel Wood / Tree Products	Liquor	Total Sales in Rs.
Phansidand	1	11	-	-	1580
Mahagaon	8	2	1	-	5878
Tareghar	1	1	15	-	1200
Arebudruk	-	1	-	11	3429
Dhawate	7	-	-	-	1336
Ambeghar	36	3	2	-	6510
Hedoshi	81	-	4	-	27179
Uddhar	-	-	3	-	40
Wafeghar	-	17	-	1	1252
Khandad	-	36	-	42	10125
Percentage to Total	**134**	**71**	**25**	**54**	**58529**

Table 75 - Frequency Distribution of Services Accessed for Child Delivery	
Dai	25
Elderly Women - In House	24
Experienced Women from Other Hamlet	13
Private Doctor	2
Government Doctor	1
Nurse	1

Table 76 - Access to Drinking Water

Season	Source						Time Required				
	Stream / River	Borewell	Open Well	Pit	Tap Water	Total	Less than Half hour	Half to One Hour	One to Two Hours	More Than Two Hours	Total
Monsoon Source	7	2	12	15	19	55	11	30	9	5	55
Percentage	**13%**	**4%**	**22%**	**27%**	**35%**	**100%**	**20%**	**55%**	**16%**	**9%**	**100%**
Winter Source	6	3	12	15	19	55	8	31	11	5	55
Percentage	**11%**	**5%**	**22%**	**27%**	**35%**	**100%**	**15%**	**56%**	**20%**	**9%**	**100%**
Summer Source	6	3	11	15	20	55	8	25	14	8	55
Percentage	**11%**	**5%**	**20%**	**27%**	**36%**	**100%**	**15%**	**45%**	**25%**	**15%**	**100%**

Times Water Fetched			
Once	Twice	Thrice	More than Thrice
4	41	3	7
7%	**75%**	**5%**	**13%**

Table 77 - Ration Card				
HH No.	Possessing Ration Card	Not Possessing Ration Card	APL	BPL
Phanshidand	4	1	2	2
Mahagaon	8	1	0	8
Tareghar	7		1	6
Arebudruk	2			2
Dhawate	1		1	
Ambeghar	6	1		6
Hedoshi	11	3	4	7
Uddhar	3		2	1
Wafeghar	2			2
Khandad	3	2		3
Total	**47**	**8**	**10**	**37**

Table 78 - Beneficiary of Schemes		
Scheme	Number of HH	Percentage
Goatry	14	25.5
Housing Scheme (I.A.Y)	10	18.2
Ghar-repair	2	3.6
Bhandee watap	1	1.8
Seed distru	1	1.8
Electric motor	1	1.8
Bullock pair	1	1.8
Bio-gas	1	1.8
NR	22	40.0
Grand Total	**55**	**100.0**

TABLE 79 - Access to Rural Credit		
Purpose of Loan	No. of HH	Percentage
Agriculture	5	9.1
Assets	3	5.5
Business	1	1.8
Food	1	1.8
Illness	2	3.6
Other	6	10.9
Wedding	3	5.5
Not taken	34	61.8
Grand Total	55	100.0

Table 80 -Type of Houses			
Sr.No.	Type	No.of Houses	Percentage
1	'Kaccha' House	26	47%
2	'Pukka' House	29	53%
	Total	**55**	**100%**

Table 81 - Location of the Houses			
Sr.No.	Location	No.of Houses	Percentage
1	Slope	11	20%
2	Plain	26	47%
3	Undulating	5	9%
4	Hilltop	13	24%
	Total	**55**	**100%**

Table 82 - Built-up Area of the Houses			
Sr.No.	Built-up Area	No.of Houses	Percentage
1	Less Than 300 Sq. Feet	26	47%
2	300 to 500 Sq. Feet	25	45%
3	500 to 700 Sq. Feet	4	7%
	Total	**55**	**100%**

Table 83 - Construction Material for Roof			
Sr.No.	Construction Material	No.of Houses	Percentage
1	Kaul (Baked Earthen Tiles)	43	78%
2	Grass	6	11%
3	Tin Sheets	6	11%
	Total	**55**	100%

Table 84 - Construction Material for Wall			
Sr.No.	Construction Material	No.of Houses	Percentage
1	Kudmati (Mud and Grass)	23	42%
2	Soil and Bricks	8	15%
3	Cement and Bricks	14	25%
4	Cement and Bricks with cement plaster	10	18%
	Total	**55**	100%

Table 85 - Construction Material for Loft			
Sr.No.	Construction Material	No.of Houses	Percentage
1	Wood	17	31%
2	Bamboo	3	5%
3	No Loft	35	64%
	Total	**55**	**100%**

Table 86 - Construction Material for Floor			
Sr.No.	Construction Material	No.of Houses	Percentage
2	Mud Floor with Cowdung Plaster	50	91%
3	Koba (Cement Floor)	3	5%
4	Tiles (Stone)	2	4%
	Total	**55**	**100%**

Table 87 - Material for Fence			
Sr.No.	Material	No.of Houses	Percentage
1	No Fence	49	89%
2	Cactus	6	11%
	Total	**55**	**100%**

Table 88 - Houses Repair Works and its Expenses			
HH no.	Type of Repair Work Done (Local Name)	Local Names Explained	Expenses in Rs.
Repairs To Roof			
60	Grass Roof	Replacing Grass	200
71	Kaul	Replacing Earthen Tiles	40
10	Kaul	Replacing Earthen Tiles	100
29	Kaul	Replacing Earthen Tiles	100
11	Kaul	Replacing Earthen Tiles	150
47	Kaul	Replacing Earthen Tiles	Self
9	Kaul + Wase	Replacing Earthen Tiles and Wooden Beams	200
89	Kaul + Wase	Replacing Earthen Tiles and Wooden Beams	200
68	Kaul + Wase	Replacing Earthen Tiles and Wooden Beams	300
6	Kaul + Wase	Replacing Earthen Tiles and Wooden Beams	1000
67	Kaul + Wase	Replacing Earthen Tiles and Wooden Beams	2500
61	Wase	Repairing / Replacing Wooden Beams	500
12	Wase	Repairing / Replacing Wooden Beams	Self
Repairs to Roof and Walls			
114	Grass + Kud	Replacing Grass and Wooden Sticks in the Wall	300
88	Grass + Kud	Replacing Grass and Wooden Sticks in the Wall	1000
73	Kaul + Kud	Replacing Earthen Tiles and Wooden Sticks in the Wall	500

48	Kaul + Kud	Replacing Earthen Tiles and Wooden Sticks in the Wall	800
90	Kaul + Kud	Replacing Earthen Tiles and Wooden Sticks in the Wall	1000
83	Kaul + Kud	Replacing Earthen Tiles and Wooden Sticks in the Wall	4290
Repairs to Walls, Floor & Verandha			
3	Kud	Replacing Wooden Sticks in the Wall	90
75	Wall - Bricks	Repairing Wall made of Bricks	1000
72	Kud + Floor	Replacing Wooden Sticks in the Wall and Floor	500
66	Padavi	Repair of Verandha	100
Construction of New House			
97	New House	Material Expenese for New House	2800

Table 89 - Frequency Distribution of Possession of Household Goods		
Type of Household Good	Number of HHs Possessing	Percentage to Total No. Of HHs.
Tape	15	27%
Television	8	15%
Electric Fan	4	7%
Electricity	27	49%
Paying Electricity Bill	19	35%
Bicycle	7	13%

Table 90 - Sources of Social Support (Yearly Recall)											
Persons helped	Child's Illness	Women's Illness	School Leaving Certificate	Caste Certificate	Ration Card	Domestic Quarrel	Quarrel in Extended Family	Quarrel with Patron / Employer	Quarrel with Forest Guard	Quarrel with Police	Urgent Need of Money
Husband / Wife	15%	18%	13%	7%	11%	13%	7%	9%	6%	5%	11%
Friends / Relatives	60%	62%	42%	33%	31%	40%	25%	5%	6%	4%	7%
Neighbour	9%	11%	4%	9%	7%	13%	20%	2%	2%	2%	27%
Patron	7%	7%	-	-	-	-	-	-	-	-	16%
Villager's	-	-	-	-	-	-	-	-	-	-	15%
Village Community	2%	-	-	2%	-	-	2%	-	9%	11%	9%
Social leader	-	-	2%	2%	4%	-	-	-	-	-	4%
Social Work Organization	-	-	2%	11%	15%	-	-	9%	9%	9%	-
Grassroots Organization	-	-	4%	15%	18%	2%	2%	16%	13%	18%	-
Not Applicable	7%	2%	35%	22%	15%	33%	44%	58%	55%	51%	11%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 91- Intra-Household Distribution of Domestic Work (Yearly Recall)														
Member of the Household	Fetching Water		Cooking		Cleaning the House		Washing Clothes and Cleaning Utensils		Taking Care of Children		Fuel Wood Collection		Taking Care of Sick	
	Number of Response	Percentage to Total	Number of Response	Percentage to Total	Number of Response	Percentage to Total	Number of Response	Percentage to Total	Number of Response	Percentage to Total	Number of Response	Percentage to Total	Number of Response	Percentage to Total
Women	42	53%	43	59%	42	59%	40	57%	33	65%	38	39%	37	39%
Old Women	15	19%	17	23%	18	25%	15	21%	13	25%	14	14%	17	18%
Young Girl	16	20%	9	12%	8	11%	11	16%	2	4%	9	9%	8	9%
Total Female	**73**	**91%**	**69**	**95%**	**68**	**96%**	**66**	**94%**	**48**	**94%**	**61**	**63%**	**62**	**66%**
Men	3	4%	1	1%	2	3%	1	1%	2	4%	26	27%	16	17%
Old Men	3	4%	2	3%	1	1%	2	3%	1	2%	8	8%	9	10%
Young Boy	1	1%	1	1%	0	0%	1	1%	0	0%	2	2%	7	7%
Total Male	**7**	**9%**	**4**	**5%**	**3**	**4%**	**4**	**6%**	**3**	**6%**	**36**	**37%**	**32**	**34%**
Total	80	100%	73	100%	71	100%	70	100%	51	100%	97	100%	94	100%

Table 92 - Wage Earnings and Employment [Based On Daily Recall: Winter 03-04]											
Hamlet	HH No.	Total No. of Working Adult Of Members in the HH	Total Number of Members Acutually Worked in this Activity			Farm Days	Non Farm Days	Total Days	Employment Percentage	Total Earnings	Wage Rates
			Male	Female	Total						
Khandad	5	1	0	0	0	0	0	0	0%	0	0
Hedoshi	36	2	0	0	0	0	0	0	0%	0	0
Hedoshi	37	2	0	1	1	8	0	8	9%	0	0
Hedoshi	29	1	1	0	1	10	0	10	11%	0	0
Hedoshi	33	1	1	0	1	13	0	13	14%	560	43
Hedoshi	34	1	0	1	1	13	0	13	14%	350	27
Hedoshi	39	2	1	1	2	1	31	32	18%	2150	34
Ambeghar	90	2	2	0	2	3	40	43	24%	1778	21
Hedoshi	35	3	1	1	2	8	47	55	30%	2740	25
Ambeghar	89	2	2	1	3	48	17	65	24%	3269	17
Ambeghar	88	2	1	1	2	2	66	68	37%	4269	31
Hedoshi	41	1	0	1	1	0	49	49	54%	2140	44
Khandad	4	2	1	0	1	0	67	67	74%	1500	22
Khandad	2	2	1	0	1	0	67	67	74%	1000	15
Khandad	3	3	0	1	1	0	67	67	74%	1000	15
Total	**15 HHs**	**27**	**11**	**8**	**19**	**106**	**451**	**554**	32%	**20756**	
Average									**30%**		**20**

Table 93 - Distribution of Work Days Under Wage Labor Activity : Gender and Relationshipwise [Based on Daily Recall: Winter 03-04]									
Gender	Relationship	Total Number of Persons in the Workforce			Total Number of Adults Participated in Wage Labor Activity	Farm days	Non farm days	Total Work days	Total earnings (Rs.)
		Adults	Children	Total					
Males	Head of the Household	13	0	13	7	32	264	296	13833
	Son 1	1	5	6	4 (1 adult + 3 children)	26	42	68	4695
Total Males		**14**	**5**	**19**	**11**	**58**	**306**	**364**	**18528**
Females	Head of the Household	2	0	2	2	0	116	116	3140
	Wife	9	0	9	4	27	29	56	2830
	Daughter 1	2	2	4	1	12	0	12	350
	Daughter 2	0	4	4	1	9	0	9	120
	Mother	1	0	1	0	0	0	0	0
Total Females		**14**	**6**	**20**	**8**	**48**	**145**	**193**	**6440**
Total Working Persons		**28**	**11**	**39**	**19**	**106**	**451**	**557**	**24968**

Table 94 -: Distribution of Own Farm Work Days, Percentage Employment - Household Wise [Based on Daily Recall - Winter 03-04]										
Hamlet	HH No.	Total No. Adult Of Members in the HH	Total No. Of Members Participating in this Activity			Total Data Days	Farm Days	Farm Hours	Hours / day	Employment Percentage (Per Person)
			Male	Female	Total					
Khandad	2	2	0	0	0	91	0	0	0	0%
Khandad	3	2	0	0	0	91	0	0	0	0%
Khandad	4	2	0	0	0	91	0	0	0	0%
Khandad	5	3	0	0	0	91	0	0	0	0%
Hedoshi	29	3	0	0	0	91	0	0	0	0%
Hedoshi	33	2	0	0	0	91	0	0	0	0%
Hedoshi	41	1	0	0	0	91	0	0	0	0%
Ambeghar	88	2	0	0	0	91	0	0	0	0%
Ambeghar	89	3	0	0	0	91	0	0	0	0%
Ambeghar	90	3	0	0	0	91	0	0	0	0%
Hedoshi	39	2	1	1	2	91	1	9	9	1%
Hedoshi	35	2	1	1	2	91	13	111	9	14%
Hedoshi	34	3	1	2	3	91	23	163	7	25%
Hedoshi	37	3	1	2	3	91	35	343	10	38%
Hedoshi	36	2	1	1	2	91	40	341	9	44%
Total		**35**	**5**	**7**	**12**	**1365**	**112**	**967**		
Average									**9**	**25%**

Table 95 - Gender, Age, and Relaltionshipwise Distriubution of Workdays and Hours on Own Farm [Based on Daily Recall: Winter 03-04]							
R' ship / Gender	Relationship	Number of Persons Participating in this Activity			Farm days	Total working hours	Hours / Day
		Adults	Children	Total			
Males	Head of the Household	5	0	5	111	958	8.6
	Son 1	0	0	0	0	0	0
	Son 2	0	0	0	-	-	-
Total Males		**5**	**0**	**5**	**111**	**958**	**8.6**
Females	Head of the Household	0	0	0	0	0	0
	Wife	4	0	4	146	992	6.8
	Daughter 1	0	1	1	27	174	6.4
	Daughter 2	1	1	2	40	353	8.8
	Mother	0	0	0	0	0	0
Total Females		**5**	**2**	**7**	**213**	**1519**	**7.1**
Total Working persons		**10**	**2**	**12**	**324**	**2477**	**7.6**

Table 96 - Most Frequent Type of Work Done on Own Farm in a Week [Based on Daily Recall: Winter 03-04]

Work Type	Responses	Percentage
Applying Fertilizers	0	0%
Harvesting	0	0%
Transplanting	0	0%
Weeding	0	0%
Rice Nursery Preparation	0	0%
Ploughing	0	0%
Fencing / Bunding	6	4%
Treshing	13	8%
Others (Watering and Gaurding)	71	46%
No Work Done (HH-member-weeks)	66	42%
Grand Total	**156**	100%

Note : (1) 'Other' work done includes watering the gardens / farms, and gaurding the farms from attack by wild animals; (2) One case is one 'household-member-week'. In all 7 females and 5 males have worked in own-farm cultivation. Therefore the total number of cases is (7+5) X 13 weeks = 156

Table 97 -Householdswise Distribution of days and Hours spent in Forest Collection, Fishing and Hunting Activity [Based On Daily Recall: Winter 03-04]												
Hamlet	HH No.	Total Number of Adult Persons in the HH	Total No. of Persons Participating in this Activity					Total Data Days	Total Hours	Total Days	Hour / day (average)	Employment Percentage Per Person
			Male	Female	Total	Working members below 18 years	whether other members worked Y/N					
1	2	3	4	5	6	7	8	9	10	11	12	13
Khandad	2	1	1	2	**3**	2	Y	91	221	80	2.8	
Khandad	3	2	0	3	**3**	1	N	91	206	79	2.6	
Khandad	4	2	2	1	**3**	1	N	91	142	55	2.6	
Khandad	5	1	1	1	**2**	2	N	91	221	74	3.0	
Hedoshi	29	1	2	1	**3**	2	Y	91	121	41	3.0	
Hedoshi	33	1	2	0	**2**	1	Y	91	46	20	2.3	
Hedoshi	34	2	1	2	**3**	1	Y	91	129	55	2.3	
Hedoshi	35	2	1	1	**2**	0	N	91	93	24	3.9	
Hedoshi	36	3	1	0	**1**	0	N	91	27	5	5.4	
Hedoshi	37	2	0	2	**2**	1	Y	91	64	16	4.0	
Hedoshi	39	2	1	1	**2**	0	N	91	205	57	3.6	
Hedoshi	41	1	0	1	**1**	0	Y	91	23	4	5.8	
Ambeghar	88	2	0	1	**1**	0	N	91	33	12	2.8	
Ambeghar	89	2	2	1	**3**	1	Y	91	113	31	3.6	
Ambeghar	90	3	1	0	**1**	0	Y	91	56	15	3.7	
Table			**15**	**17**	**32**	**12**				**568**		
Note: Working household members who belongs to the group of below 18 years (column 7) lies in the range of 6 years to 17 years												

Table 98 - Days spent in forest collection and fishing and Hunting activity (product wise) [Winter season_13 weeks]									
Hamlet	**HH No.**	**Food Collection Days**	**Fuel Collection Days**	**Fodder Collection Days**	**Fish Collection Days**	**Meat Collection Days**	**Timber Collection Days**	**Tree product Collection Days**	**Total Days**
Khandad	2	8	67	0	3	0	0	0	**78**
Khandad	3	4	74	0	0	0	0	0	**78**
Khandad	4	1	45	0	8	0	0	0	**54**
Khandad	5	0	10	0	64	0	0	0	**74**
Hedoshi	29	0	35	0	0	5	0	0	**40**
Hedoshi	33	0	16	0	0	3	1	0	**20**
Hedoshi	34	0	28	0	0	16	3	2	**49**
Hedoshi	35	0	21	0	0	2	0	0	**23**
Hedoshi	36	0	2	0	0	0	2	0	**4**
Hedoshi	37	0	12	0	0	3	0	0	**15**
Hedoshi	39	0	51	0	0	5	0	0	**56**
Hedoshi	41	0	3	0	0	1	0	0	**4**
Ambeghar	88	0	12	0	0	0	0	0	**12**
Ambeghar	89	0	25	0	0	5	0	0	**30**
Ambeghar	90	0	15	0	0	0	0	0	**15**
Total		**13**	**416**	**0**	**75**	**40**	**6**	**2**	**552**

Table 99 - Distribution of Days Spent In Forest Collection, Fishing and Hunting Activity - Gender, Age, and Relationshipwise [Based on Daily Recall: Winter 03-04]					
R' ship / Gender	Relationship	No. of Persons of the Workforce Participating in this Activity			Total days (forest collection)
		Adults	Children	Total	
Males	Head of the Household	10	0	10	125
	Son 1	0	5	5	24
	Son 2	0	0	0	-
Total Males		**10**	**5**	**15**	**149**
Females	Head of the Household	2	0	2	31
	Wife	8	0	8	166
	Daughter 1	1	2	4	71
	Daughter 2	1	3	4	81
	Mother	0	0	0	0
Total Females		**12**	**5**	**17**	**349**
Totals		**22**	**10**	**32**	**498**

Note: Workdays of the other members of the household in this actiovity have not been considered in the above table. Therefore the total days in this activity are less than the earlier table.

Table100: Animal Husbandary Work Days - Household Wise [Based on Daily Recall: Winter03-04]											
Hamlet	HH No.	Total No. of Persons Participating in this Activity					Number of Data Days	No. of Days of Work in This Activity	Total Hours of work	hours / day (Average per person)	Employment Percentage Per Person
		Male	Female	Total	Working members below 18 years	whether other members worked Y/N					
Khandad	2	0	0	0	0	N	91	0	0	0	0%
Khandad	3	0	0	0	0	N	91	0	0	0	0%
Khandad	4	0	0	0	0	N	91	0	0	0	0%
Khandad	5	0	0	0	0	N	91	0	0	0	0%
Hedoshi	29	0	0	0	0	N	91	0	0	0	0%
Hedoshi	33	0	0	0	0	N	91	0	0	0	0%
Hedoshi	34	0	0	0	0	N	91	0	0	0	0%
Hedoshi	35	0	0	0	0	N	91	0	0	0	0%
Hedoshi	36	1	2	3	1	Y	91	54	294	5.4	20%
Hedoshi	37	0	1	1	1	N	91	12	120	10.00	13%
Hedoshi	39	0	0	0	0	N	91	0	0	0	0%
Hedoshi	41	0	0	0	0	N	91	0	0	0	0%
Ambeghar	88	0	0	0	0	N	91	0	0	0	0%
Ambeghar	89	0	0	0	0	N	91	0	0	0	0%
Ambeghar	90	0	1	1	0	N	91	63	158	2.51	69%
Totals		**1**	**4**	**5**	**2**			**129**	**572**	4.43	

Table 101 - Distribution of Days spent in Animal Husbandary Activity (Totals) - Gender, Age, and Relationship Wise [Based on Daily Recall - HRK Data: Winter 03-04]					
R' ship / Gender	Relationship	Members of the Workforce Participating in this Activity			Total days (AH)
		Adults	Children	Total	
Males	Head of the Household	1	0	**1**	4
	Son 1	0	0	**0**	0
	Son 2	0	0	**0**	-
Total Males		1	0	**1**	4
Females	Head of the Household	0	0	**0**	0
	Wife	2	0	**2**	65
	Daughter 1	0	0	**0**	0
	Daughter 2	0	1	**1**	12
	Mother	1	0	**1**	48
Total Females		3	1	**4**	125
Totals		4	1	**5**	**129**

Table 102 - Expenditure Of Sample Householdwise for 91 Days [Based on Daily recall: Winter 03-04]						
Hamlet	HH No.	Effective adult persons in the HHs (No.)	Cash expenditure on Food items (In Rs.)	Cash Expenditure on Non Food items (In Rs)	Total Cash Expenditure (In Rs.)	Monlthy Per Capita Exependiture Per HH (MPCE)
Hedoshi	35	2.5	293	42	335	44
Hedoshi	39	3.0	353	88	441	48
Hedoshi	33	3.5	114	488	602	57
Ambeghar	90	5.0	947	6	953	63
Hedoshi	36	4.5	937	20	957	70
Hedoshi	29	4.5	1003	261	1264	93
Ambeghar	89	3.5	1097	16	1113	105
Hedoshi	41	3.0	936	58	994	109
Khandad	5	5.5	2396	313	2709	162
Hedoshi	34	5.5	2447	1109	3556	213
Ambeghar	88	3.0	1973	119	2092	230
Hedoshi	37	5.0	954	2625	3579	236
Khandad	2	3.5	2476	1339	3815	359
Khandad	3	3.0	2256	1340	3596	395
Khandad	4	2.5	2425	1197	3622	478
Average		**3.8**	**1374**	**601**	**1975**	**177**

Table 103 - Frequency distribution of the (first Three) Major Items Purchased during reference weeks [Based On Daily recall: Winter 03-04]											
Hamlet	HH No.	No Purchases Made	Food Items	Ready Food (hotel)	Pan Tobacoo	Liquor	Non food consumables	Medical	Education	Capital	other
Khandad	2	5	13	--	--	--	8	--	--	13	--
Khandad	3	1	13	--	--	--	13	--	12	--	--
Khandad	4	1	13	--	--	--	13	--	--	12	--
Khandad	5	1	13	10	2	--	1	--	--	12	--
Hedoshi	29	11	10	8	--	--	10	--	--	--	--
Hedoshi	33	13	18	2	--	--	2	4	--	--	--
Hedoshi	34	1	13	6	4	--	13	2	--	--	--
Hedoshi	35	19	8	10	1	--	1	--	--	--	--
Hedoshi	36	26	8	2	--	--	3	--	--	--	--
Hedoshi	37	10	11	5	--	--	10	--	--	3	--
Hedoshi	39	16	11	7	1	--	4	--	--	--	--
Hedoshi	41	12	12	12	--	--	3	--	--	--	--
Ambeghar	88	3	13	13	--	--	9	1	--	--	--
Ambeghar	89	11	13	13	--	--	2	--	--	--	--
Ambeghar	90	17	13	6	--	--	3	--	--	--	--
Total		**147**	**182**	**94**	**8**	**0**	**95**	**7**	**12**	**40**	**0**

Table 104 - Total Income from Sale of Produce - HH Wise - [Based On Daily recall: Winter 03-04]		
Hamlet	HH No.	Total Sales in Rupees
Hedoshi	35	0
Hedoshi	33	0
Ambeghar	90	0
Hedoshi	41	0
Ambeghar	88	0
Hedoshi	39	40
Ambeghar	89	165
Hedoshi	29	224
Khandad	5	1450
Khandad	4	1670
Khandad	3	1800
Khandad	2	1920
Hedoshi	36	1999
Hedoshi	37	3149
Hedoshi	34	3638
Total		**16055**
Average Per Week Per Household		**82.33**

Table 105 - Major Item Sold: Household wise Frequency Distribution [Based On Daily Recall: Winter 03-04]											
Hamlet	HH No.	Major Sales Items 'This Week' (Three Major Items sold in Every Week was Recorded and Added)									Total Weeks
		No Items Sold	Food Items	Food Grains	Fish	Meat	Fuel Items	Liquor	Tree products	Other	
Khandad	2	26	**--**	**--**	**--**	**--**	**--**	13	**--**	**--**	**39**
Khandad	3	26	--	--	--	--	--	13	--	--	**39**
Khandad	4	21	--	--	5	--	--	13	--	--	**39**
Khandad	5	26	--	--	13	--	--	--	--	--	**39**
Hedoshi	29	38	1	--	--	--	--	--	--	--	**39**
Hedoshi	33	39	--	--	--	--	--	--	--	--	**39**
Hedoshi	34	33	--	6	--	--	--	--	--	--	**39**
Hedoshi	35	39	--	--	--	--	--	--	--	--	**39**
Hedoshi	36	35	1	3	--	--	--	--	--	--	**39**
Hedoshi	37	34	2	3	--	--	--	--	--	--	**39**
Hedoshi	39	37	--	--	--	--	2	--	--	--	**39**
Hedoshi	41	39	--	--	--	--	--	--	--	--	**39**
Ambeghar	88	39	--	--	--	--	--	--	--	--	**39**
Ambeghar	89	38	--	--	--	--	1	--	--	--	**39**
Ambeghar	90	39	--	--	--	--	--	--	--	--	**39**
Totals		509	4	12	18	0	3	39	0	0	**585**
Percentages		87%	1%	2%	3%	0%	1%	7%	0%	0%	

Table 106: Data Regarding Number of Data Days and Weeks in HRK Data in Monsoon 2003																				
H.H.NO.	JUNE				JULY					AUGUST					SEPTEMBER				Total Data Days	Percentage of Data Days to Total Observation Period (126 Days)
Week No. of the Year -->	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
67	7	7	7	7	6	7	7	7	4	7	7	7	7	7	7	7	7	7	122	97%
68	7	7	7	7	6	7	7	7	4	7	7	7	7	7	7	7	7	7	122	97%
39	4	7	7	7	7	7	7	7	7	7	7	7	7	4	7	7	6	7	119	94%
73	7	7	7	7	6	7	7	7	4	7	7	7	7	7	7	7	4	7	119	94%
29	7	7	7	7	5	7	7	7	5	7	7	7	7	5	7	7	7	5	118	94%
56	4	7	7	7	6	7	7	7	7	6	6	7	7	7	6	7	7	5	117	93%
70	7	7	7	7	6	7	7	7	-	7	7	7	7	7	7	7	7	6	117	93%
43	7	7	7	7	7	7	6	6	6	7	7	7	7	5	6	5	7	5	116	92%
71	7	7	7	7	6	7	7	7	4	7	7	7	7	-	7	7	7	7	115	91%
114	7	7	7	7	6	5	5	7	7	7	7	7	6	5	4	7	7	7	115	91%
30	7	7	7	7	6	7	7	7	7	5	-	7	5	7	7	7	7	7	114	90%
37	4	4	7	7	7	7	7	6	7	5	7	7	7	4	7	7	7	7	114	90%
77	7	7	7	7	6	7	7	7	4	7	7	7	7	-	7	7	7	6	114	90%
10	7	5	7	7	5	7	7	7	7	7	6	7	7	6	7	-	7	7	113	90%
38	4	7	7	7	7	6	7	6	7	7	7	7	7	-	7	7	6	7	113	90%
41	6	5	7	5	6	5	6	7	6	7	6	6	7	7	7	7	7	6	113	90%
113	7	7	7	7	6	4	5	5	6	7	7	6	5	6	7	7	7	7	113	90%
1	7	7	7	7	7	7	7	7	7	7	7	7	-	-	7	7	7	7	112	89%
72	7	7	7	7	6	7	7	7	4	7	7	7	7	-	7	7	7	4	112	89%
98	7	7	7	5	7	7	7	6	7	5	6	7	5	6	5	7	5	6	112	89%
9	7	5	7	7	5	7	7	5	7	7	6	7	7	7	6	-	7	7	111	88%
88	-	7	7	7	6	7	7	7	5	7	7	7	7	-	7	7	7	7	109	87%
89	3	4	7	7	6	7	7	7	5	7	7	7	7	-	7	7	7	7	109	87%
90	3	7	7	7	3	7	7	7	5	7	7	7	7	-	7	7	7	7	109	87%
96	7	4	5	6	7	7	5	7	7	6	3	7	7	7	6	7	5	6	109	87%
75	7	7	7	7	6	7	7	7	-	7	7	7	7	-	7	7	4	7	108	86%
28	7	7	-	-	5	7	7	7	7	7	7	7	7	6	7	7	7	5	107	85%

3	6	7	7	7	-	7	7	7	7	7	7	7	6	-	6	7	7	4	106	84%
4	7	7	7	7	-	7	7	7	7	7	7	7	-	-	6	7	7	7	104	83%
91	3	7	7	7	6	7	7	7	5	7	7	-	7	-	7	7	7	6	104	83%
5	6	7	7	7	-	7	7	7	7	7	7	7	-	-	6	7	7	7	103	82%
6	5	7	7	-	7	7	7	7	7	7	7	7	-	-	7	7	7	7	103	82%
35	7	7	5	4	5	7	7	7	-	7	7	7	7	5	7	7	7	-	103	82%
11	7	5	7	7	7	7	7	7	7	7	7	7	-	-	7	7	6	-	102	81%
12	7	5	7	7	5	7	7	7	7	7	7	7	-	-	7	7	7	-	101	80%
36	6	7	5	7	5	7	7	-	3	7	7	6	7	-	7	7	7	6	101	80%
2	6	7	7	7	-	7	7	7	7	7	7	7	-	-	6	7	7	4	100	79%
8	7	5	7	7	5	7	7	7	7	7	7	-	-	-	7	7	7	6	100	79%
34	7	7	5	-	5	7	7	7	-	7	7	7	7	5	7	7	7	-	99	79%
97	5	7	7	5	3	5	5	5	6	6	7	8	5	-	7	7	5	5	98	78%
32	7	7	6	4	7	7	5	7	7	-	-	7	7	7	7	4	7	-	96	76%
33	7	7	6	4	5	7	7	7	-	7	5	7	7	-	7	4	7	-	94	75%
64	5	7	5	7	7	-	-	7	6	7	4	7	6	7	6	7	6	-	94	75%
69	7	7	7	7	6	7	7	7	-	7	7	7	7	7	-	-	4	-	94	75%
7	7	5	7	7	5	7	7	7	7	7	7	7	6	-	7	-	-	-	93	74%
31	4	-	7	7	7	7	7	7	7	-	-	-	7	7	7	7	7	5	93	74%
49	7	6	7	5	-	6	6	7	7	7	7	-	-	-	6	7	7	5	90	71%
61	4	7	7	6	7	-	-	7	7	5	7	7	6	7	-	6	7	-	90	71%
48	7	4	7	5	-	7	5	7	7	6	7	-	-	-	6	7	7	5	87	69%
59	7	4	7	7	7	-	-	6	5	7	6	7	4	7	-	6	7	-	87	69%
60	7	7	4	7	7	-	-	6	7	7	6	5	7	7	-	6	4	-	87	69%
47	7	5	7	5	-	3	7	7	7	7	7	-	-	-	6	7	6	4	85	67%
66	7	7	7	7	-	-	-	7	7	7	7	7	7	7	-	7	-	-	84	67%
84	7	7	7	3	-	7	7	7	-	4	7	7	-	-	7	6	7	-	83	66%
83	7	4	7	7	5	7	5	7	-	-	7	-	-	-	7	7	3	7	80	63%
Total Data Days in Monsoon 2003 for 55 Households = 5733, Average ->																				**83%**

Table 107: Data Regarding Number of Data Days and Weeks in HRK Data in Winter 2003-04																		Total Data Days	Percentage of Data Days to Total Observation Period (123 Days)	No. of Missing Weeks
H.H.NO.	Oct-03				Nov-03				Dec-03					Jan-04						
Week No. of the Year -->	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4			
1	7	7	7	7	7	7	7	7	7	7	7	7	7	-	-	-	-	91	74%	4
2	7	7	7	7	7	7	7	7	7	7	7	7	7	-	-	-	-	91	74%	4
3	7	7	7	7	7	7	7	7	7	7	7	7	7	-	-	-	-	91	74%	4
4	7	7	7	7	7	7	7	7	7	7	7	7	7	-	-	-	-	91	74%	4
5	7	7	7	7	7	7	7	7	7	7	7	7	7	-	-	-	-	91	74%	4
29	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
33	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
34	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
35	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
36	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
37	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
39	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
41	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
43	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
72	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
88	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
89	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4
90	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	7	91	74%	4

Table 108 - Details Regarding Data Recorders

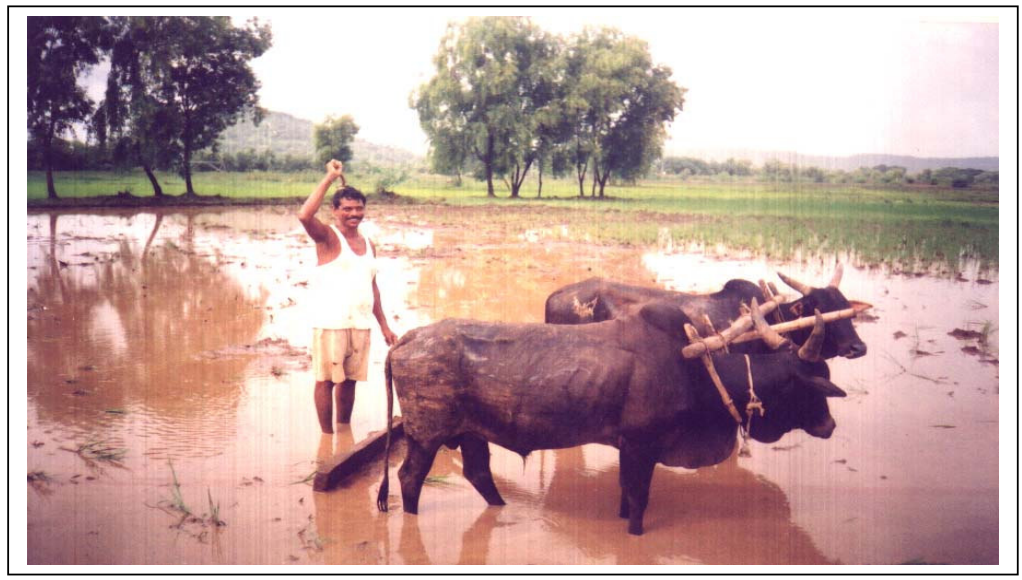
Sr.No.	Hamlet	Age	Sex	Educational Status	Marital Status	Association with GrO		Ocupation		Financial Status			Data Analyzed
						Family Member	Self	Primary	Secondary	Good	Fair	Poor	
Data Recoders in Using HRK Tool in Self Administered Mode (SA)													
1	Hedoshi	22	F	7	Y	Y	N	Job in NGO		Y			Y
2	Hedoshi	17	F	4	N	Y	N	HW			Y		Y
3	Hedoshi	32	M	4	Y	Y	Y	Farm	Non-farm		Y		Y
4	Mahagaon	18	F	11	N	Y	N	HW			Y		Y
5	Mahagaon	20	M	6	N	Y	N	Farm	Non-farm		Y		Y
6	Mahagaon	20	M	7	N	Y	N	Farm			Y		Y
7	Mahagaon	18	M	6	N	Y	N	Farm			Y		Y
8	Mahagaon	12	M	6	N	Y	N	NW			Y		N
9	Ambeghar	30	M	6	Y	N	Y	Non-farm	Farm		Y		N
10	Hedoshi	18	M	9	N	Y	N	NW			Y		N
11	NaraliAmba	32	M	4	Y	Y	Y	Farm	Non-farm		Y		N
12	NaraliAmba	12	M	5	N	Y	N	NW			Y		N
13	NaraliAmba	14	M	5	N	Y	N	Studying				Y	N
14	Kumbharghar	13	F	4	N	Y	N	Studying				Y	N
15	Kumbharghar	13	M	6	N	Y	N	Studying				Y	N
Data Recoders in Using HRK Tool in Non Self Administered Mode (NSA)													
16	Khandad	18	F	9	N	Y	Y	HW	Liquor sell		Y		Y
17	Hedoshi	18	F	9	N	Y	N	Own farm	HW		Y		Y
18	Hedoshi	18	F	9	N	Y	N	Own farm	HW		Y		Y
19	Phanshidand	18	F	8	N	Y	N	HW		Y			Y
20	Dhavate	17	F	9	N	Y	Y	Working in GrO	Farm		Y		Y
21	Uddhar	22	F	8	Y	Y	Y	Farm	HW		Y		Y
22	Tareghar	19	M	9	N	Y	Y	Non -farm	Farm		Y		Y
23	Ambeghar	30	M	8	Y	N	Y	Non-farm	Farm			Y	Y

24	Hedoshi	18	M	9	N	Y	N	NW			Y		Y
25	Mahagaon	16	M	9	N	Y	Y	Non - farm	Own farm		Y		Y
26	Ambeghar	20	M	10	Y	Y	Y	Non-farm	Farm		Y		Y
27	Aarebudruk	18	M	11	N	Y	N	Studying			Y		Y
28	Aarebudruk	18	M	11	N	Y	N	Studying			Y		Y
29	Wafeghar	15	M	7	N	Y	N	Studying				Y	Y
30	NaraliAmba	35	M	2	Y	Y	Y	Own Farm	Non-farm	Y			N
31	Patnus	30	M	4	Y	Y	Y	Non-farm	Farm			Y	N
32	Uddhar	30	M	6	Y	Y	Y	Farm	Non-farm		Y		N
33	Wafeghar	30	F	3	Y	Y	Y	Non-farm	HW			Y	N
34	Chikhalgaon	28	M	7	Y	Y	Y	Non-farm	Farm		Y		N
35	Bhorkas	25	M	4	Y	Y	Y	Farm	Non-farm		Y		N
36	MantachiWadi	22	M	11	Y	N	N	Non-farm	Own farm			Y	N
37	Ambeghar	22	F	4	Y	Y	Y	Non-farm	HW			Y	N
38	Bhorkas	18	M	8	N	Y	N	Farm	Non-farm		Y		N
39	Hedoshi	18	M	11	N	Y	N	Non-farm	Own farm		Y		N
40	Chikhalgaon	17	M	7	N	Y	N	Studying	Own farm		Y		N
41	Patnus	17	F	7	N	Y	N	Non-farm	HW			Y	N
42	Kumbharghar	17	M	5	N	Y	N	Farm				Y	N
43	Wafeghar	15	M	7	N	Y	N	Studying				Y	N
44	Uddhar	15	F	7	N	Y	N	Studying		Y			N
45	NaraliAmba	12	M	5	N	Y	N	Studying			Y		N
46	Kavelewadi	12	M	6	N	Y	N	Studying				Y	N

Notes: HW = Housework, NW = No Work, Farm and Non-Farm indiciates wage labour

Appendix IV - Photo Documentation

1. A panoramic view of a tribal hamlet in the monsoon season, in which the study was conducted



2. A tribal farmer: Agriculture is one of their main livelihood activities

3. A view of training workshop being conducted for the Data Recorders

4. A PRA session as part of the training workshop of the Data Recorders

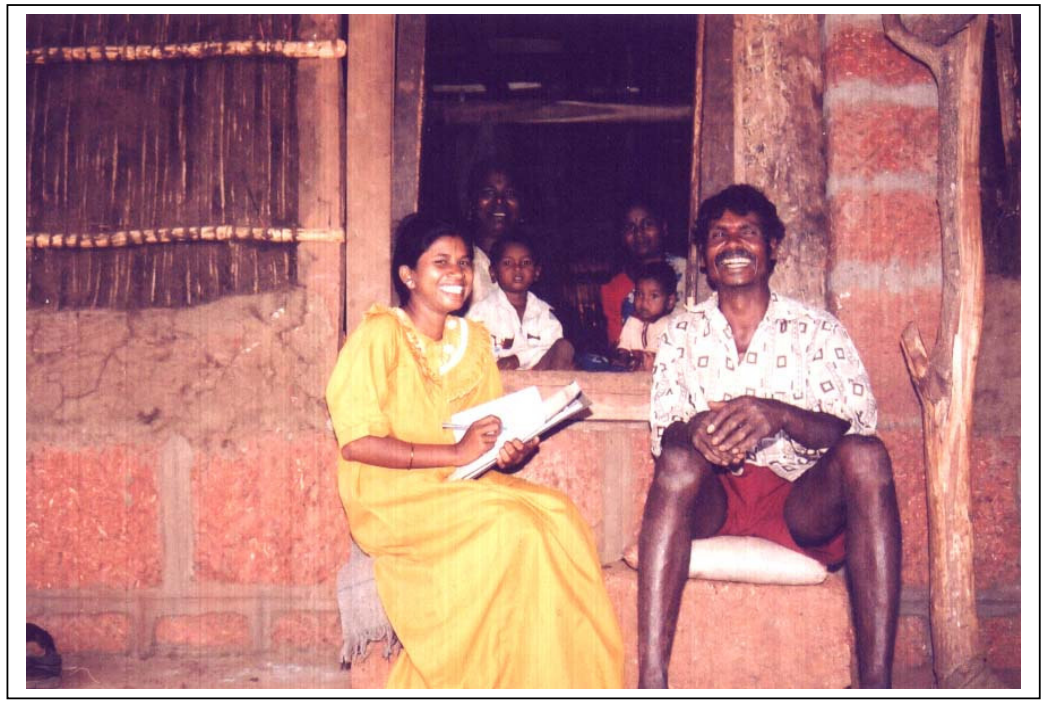
5. Data Recorders interacting with children of the working class school during their exposure visit to Pune city

6. A group photo of the Data Recorders during a training workshop

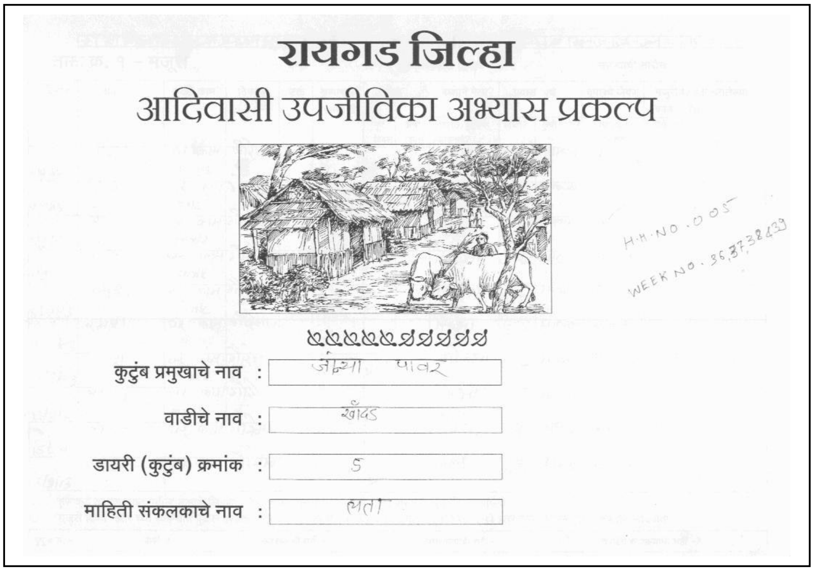
7. Prayas staff members interact with the parents of the Data Recorders along the GrO representatives

8. Meeting in a hamlet of the Data Recorders, their parents, respondent households, Prayas staff, and GrO representatives

9. Data recorder fills up the HRK schedule, as the respondent continues with her livelihood activities



10. A view of a Data Recorder filling up the HRK schedule: the cooperation of the respondent households was visible throughout the study


रायगड जिल्हा

आदिवासी उपजीविका अभ्यास प्रकल्प

कुटुंब प्रमुखाचे नाव : जेठ्या पावर

वाडीचे नाव : खोंडस

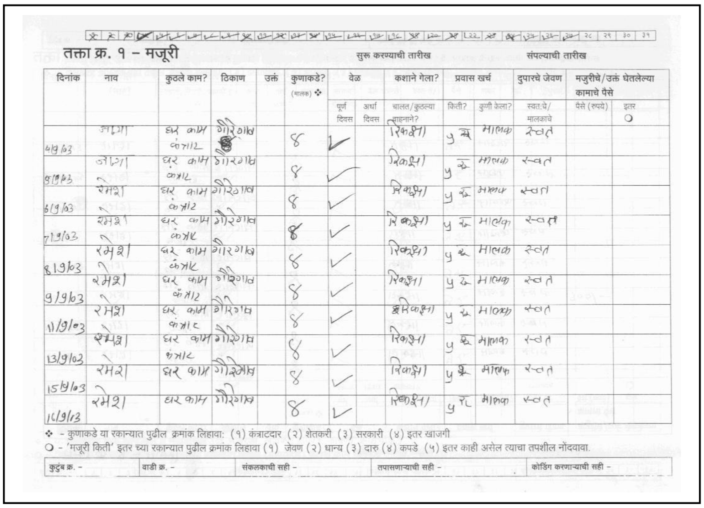
डायरी (कुटुंब) क्रमांक : 5

माहिती संकलकाचे नाव : लता

H.H. NO - 005

WEEK NO - 35,37,38,39

Cover page of the HRK tool


तक्ता क्र. १ – मजूरी

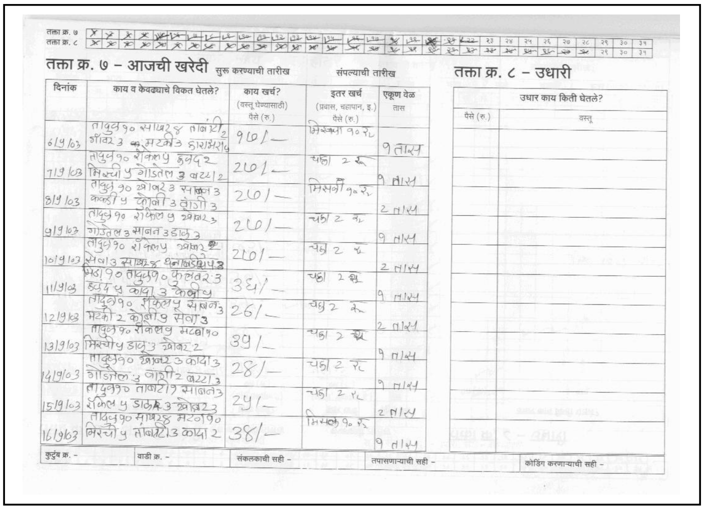
सुरू करण्याची तारीख संपल्याची तारीख

दिनांक	नाव	कुठले काम?	ठिकाण	उक्तं	कुणाकडे? (मालक) ❖	वेळ: पूर्ण दिवस	वेळ: अर्धा दिवस	कशाने गेला? चालत/कुठल्या वाहनाने?	प्रवास खर्च: किती?	प्रवास खर्च: कुणी केला?	दुपारचे जेवण: स्वत:चे/मालकाचे	मजुरीचे/उक्तं घेतलेल्या कामाचे पैसे: पैसे (रुपये)	इतर ❍
4/9/03	आग्या	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
5/9/03	जेग्या	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
6/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
7/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
8/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
9/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
11/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
13/9/03	रमेश	घर काम कंत्राट	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
15/9/03	रमेश	घर काम	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		
16/9/03	रमेश	घर काम	गोरेगाव		8	✓		रिक्षा	4 रु	मालक	स्वत		

❖ – कुणाकडे या रकान्यात पुढील क्रमांक लिहावा: (१) कंत्राटदार (२) शेतकरी (३) सरकारी (४) इतर खाजगी

❍ – 'मजूरी किती' इतर च्या रकान्यात पुढील क्रमांक लिहावा (१) जेवण (२) धान्य (३) दारु (४) कपडे (५) इतर काही असेल त्याचा तपशील नोंदवावा.

कुटुंब क्र. – वाडी क्र. – संकलकाची सही – तपासणाऱ्याची सही – कोडिंग करणाऱ्याची सही –


तक्ता क्र. ७ – आजची खरेदी सुरू करण्याची तारीख संपल्याची तारीख

दिनांक	काय व केवढ्याचे विकत घेतले?	काय खर्च? (वस्तू घेण्यासाठी) पैसे (रु.)	इतर खर्च (प्रवास, चहापान, इ.) पैसे (रु.)	एकूण वेळ तास
6/9/03	[illegible]	90/–	मिसळ 10 रु	9 तास
7/9/03	[illegible]	20/–	चहा 2 रु	9 तास
8/9/03	[illegible]	20/–	मिसळ 10 रु	2 तास
9/9/03	[illegible]	20/–	चहा 2 रु	9 तास
10/9/03	[illegible]	20/–	चहा 2 रु	2 तास
11/9/03	[illegible]	34/–	चहा 2 रु	9 तास
12/9/03	[illegible]	26/–	चहा 2 रु	2 तास
13/9/03	[illegible]	39/–	चहा 2 रु	9 तास
14/9/03	[illegible]	28/–	चहा 2 रु	9 तास
15/9/03	[illegible]	24/–	चहा 2 रु	2 तास
16/9/03	[illegible]	38/–	मिसळ 10 रु	9 तास

तक्ता क्र. ८ – उधारी

उधार काय किती घेतले? पैसे (रु.)	वस्तू

कुटुंब क्र. – वाडी क्र. – संकलकाची सही – तपासणाऱ्याची सही – कोडिंग करणाऱ्याची सही –

Sample pages of the HRK tool, filled in by the data recorders

The Study Was Conducted in Maharashtra State in India

In Maharashtra The Study was conducted in Raigarh District

District Map Of Raigarh

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