Documentation of Second-Generation Village Level Studies (VLS) in India (2001/02-2004/05)

Compiled by

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Research Project 2 – Markets, Institutions and Policies (MIP)

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Documentation of Second-Generation Village Level Studies (VLS) in Asia (2001/02-2004/05) (PART 1)

1. Introduction

It is often suggested that agricultural planning should start at the grassroots with the active involvement of the local people. However, to be effective, the role of grassroots organizations in the planning and implementation of development plans depends upon the availability of adequate and reliable data. Interaction among scientists, extension personnel, policymakers, administrators, et al. is important too. Similarly, development and dissemination of region-specific technologies require an understanding of the socioeconomic and political environment of the region. However, technologies are all too often developed without considering the ground realities and needs of the people. This leads to misuse of scarce resources and wastage of scientists' time. Besides, for want of interaction among scientists, extension workers and policymakers, the traditional wisdom of the people and knowledge of indigenous technologies go untapped. It is therefore necessary to have an idea of the socioeconomic environment and documentation of time-tested indigenous technologies and practices. It helps in developing low-cost technologies that are acceptable to the people.

Historical Perspective

In India, the concept of Village Level Studies (VLS) originated in the early 1960s in the great vision of Dr VKRV Rao, an eminent social scientist and institution builder. He was instrumental in setting up Agro Economic Research Centers (AERCs) in several states of India to conduct socioeconomic research on villages from contrasting socioeconomic environments. The villages were revisited 3-5 years after the initial study to examine and analyze the changes that would have occurred during the hiatus. Other organizations like the Planning and Action Research Institute and a few universities/institutes initiated similar village research studies. These studies have given us a better understanding of the factors associated with the success or failure of development programs.

2. First-Generation Village Level Studies by ICRISAT (1975-85)

Purpose

Village Level Studies (VLS) are an efficient way of understanding rural farming systems. They help in identifying the socioeconomic, agro-biological and institutional constraints faced by farmers. ICRISAT initiated VLS in 1975, but its initiative was quite different from the approaches adopted by other institutions. ICRISAT's studies were designed for multidisciplinary research in which agro biological and social scientists could work together in a real farm situation. They were also meant to be participatory research in which scientists could closely interact with farmers. Their major purpose was to understand the socioeconomic, agro-biological and institutional constraints to agricultural development in the semi-arid tropics (SAT). The project was broadly governed by the premise that understanding SAT farming systems is an efficient way of identifying the elements necessary in prospective technologies. Such a study of traditional systems, as reflected by farm-level resource endowments and utilization, would hopefully (1) reveal some elements that could be refined and incorporated in prospective technology; and (2) bring out in relief the physical, biological, economic and institutional constraints that condition traditional farming systems and hinder the spread of prospective technology. The main objectives of regularly collecting data from a sample of selected farmers were to monitor and document the existing farm practices in order to help in the assessment of research priorities, and to generate a data bank for a broad range of socioeconomic inquiries. Another objective was to help agro-biological scientists in developing technologies needed by the farming community. From the point of view of technology development and adaptation, the VLS provided the locus for a multidisciplinary effort to test technologies in real farm situations in collaboration with scientists from the National Agricultural Research System (NARS). ICRISAT's village studies were limited in scope and size, being confined to a few locations, but were carried out over a long period to study the dynamics of change in farming systems. In brief, the VLS were primarily designed to collect relevant farm-level data and to assist ICRISAT's research system in its task of generating technologies suited to the needs and means of SAT farmers. This was achieved through observing and monitoring what farmers do and why they do it.

Approach

ICRISAT VLS combined the features of what are commonly referred to as the "quick and clean" techniques of Rapid Rural Appraisal (RRA) with the "long and clean" methods used for in-depth study of a limited sample. This was mainly in pursuance of the grassroots or bottom-up philosophy of agricultural research and development. The Village Level Studies of ICRISAT were complementary to the village surveys undertaken by many other institutions, which focused on the short term (4-6 months) to understand mainly socioeconomic and farming system data. ICRISAT's focus was on collection of detailed data both in terms of quality as well as quantity. ICRISAT followed an intensive cost accounting method of data collection, gathering detailed plot wise information such as plot characteristics, source of irrigation, farming practices, use of inputs, farm harvest prices, resource base, assets and liabilities, employment of individual family members and all monthly transactions by the family. Moreover, data collection was a regular

exercise over a period of 10 years. Reliability of data was a crucial objective, which was ensured by facilitating close interaction between investigators and researchers. The researchers visited each study village every month and stayed there for 2-3 days. By doing so, they developed a rapport with the people and were able to check the reliability of the information provided by the sample households and also assess the vilagers' perceptions.

The VLS were a key part of ICRISAT's strategy for the conduct of farming systems research. The VLS data set and village sites helped in conducting all the four phases of farming systems research: description, design, testing (verification) and extension (training). The VLS effort generated a lot of useful information, and helped policymakers, researchers, development functionaries and extension staff in identifying principles and practices relating to technology options. The farmers proved to be a valuable resource in this endeavor.

Methodology

Selection of Districts

Five districts representing major agro-climatic zones within the SAT of India were selected for the VLS after considering the soil type, rainfall pattern and the relative importance of crops like sorghum, pearl millet, pigeonpea, chickpea and groundnut (in which ICRISAT is primarily interested). The selection was also influenced by proximity to an agricultural university/research station from where planning and logistical assistance could be obtained. Other things being equal, distance from Hyderabad was an additional consideration as it was important that senior staff members be able to stay in the study villages and supervise research operations. The five districts thus selected were Mahbubnagar in the state of Andhra Pradesh, Sholapur and Akola in Maharashtra, Sabarkantha in Gujarat and Raisen in Madhya pradesh.

Selection of Talukas/Mandals

The next step was to select a taluka (local administrative unit) in each chosen district. The researchers compiled and compared relevant taluka-level details of all the districts adjoining the selected district and/or those that showed broad similarities with it. They finally selected one taluka from the chosen district which best represented the situation of the majority of the talukas in the region (comprising the districts considered). It was ensured that the selected taluka qualified on the basis of crucial variables like net sown area, average rainfall, extent of irrigated area and proportions of important crops. If more than one taluka qualified for inclusion, their relative merits were more closely examined before final selection. Thus the selected talukas represented the situation of a broad homogenous region rather than the administrative district in which they happened to be located.

Selection of Villages

Each VLS village was so selected as to represent the predominant characteristics of the chosen taluka in terms of the cropping pattern, land use, irrigation, etc. Villages having special development programs or receiving more than the normal support of resource transfers from outside, and those located near towns and highways were not considered for selection. For each village finally selected, researchers had to visit and examine 5 to 10 villages. In all, 10 villages (2 in Andhra Pradesh, 4 in Maharashtra, 2 in Gujarat and 2 in Madhya Pradesh) were selected for the first generation of VLS.

Selection of Households

A sample of 40 respondent households was selected to represent four categories of households: landless labor, small farmers, medium farmers and large farmers. The selection of 10 landless labor households was randomly made from among those operating less than 0.2 ha of land and depending on labor as their main occupation and source of income. As regards the other three categories (cultivators/farmers), our purpose was to give proper representation to households with small, medium and large landholdings. The farm household categories were defined on the basis of the pattern of landholding in each village. To ensure equal representation of the different farm-size groups, the cultivator group was first divided into three landholding strata with an identical number of households. Ten households were randomly selected from each stratum. This implies equal sampling fractions in each size group and for analysis purposes the cultivator sample is a uniform random sample. Thirty households from the cultivator group and 10 from the labor group were randomly selected in each village; hence sampling fractions were not the same for the two groups.

A total of 240 households from 6 villages (in 5 talukas in 3 districts) of Andhra Pradesh and Maharashtra states were interviewed from 1975/76 to 1984/85. Information was collected from each household for every 3-4 weeks. The study was extended to two villages in Gujarat in 1980 and two more in Madhya Pradesh in 1981. Using the same methodology, a total of 160 households were interviewed in these two states (80 households in Gujarat from 1980/81 to 1984/85 and 80 households in Madhya Pradesh from 1981/82 to 1984/85).

Hypotheses

The research agenda of ICRISAT's Economics Program during 1975 was to identify constraints to agricultural development in the SAT and to find ways to alleviate them through technological and institutional change. Given that objective, the following priority research areas were described with a set of hypotheses:

- Economic and environmental causes of present cultivation practices
- Seasonal pattern of resource availability and bottlenecks (labor, power and water)
- Consumption and nutritional status of low-income population groups
- Impact of risk and uncertainty on farmers' behavior and adoption of new techniques
- Marketing and consumer acceptance problems
- Group action problems
- Income distribution and distribution of benefits from technology
- Speed of diffusion of new technology

(For more information, please refer to *Manual of Instructions for Economic Investigators in ICRISAT's Village Level Studies* by RP Singh, HP Binswanger and NS Jodha.)

Major Outputs

ICRISAT's Village Level Studies studied the dry land regions with contrasting climate, soil and cropping patterns and developed a landmark database on rural households in the SAT of India

and West Africa. The World Bank has certified the VLS panel data created by ICRISAT as an International Public Good (IPG), and, in one of its World Development Reports, described it as 'a goose laying golden eggs'. This longitudinal database, by virtue of its quality and richness, has attracted the attention of researchers from all over the world and formed the basis for a number of publications. It has been used extensively by leading institutions in the USA, UK, Germany and Australia. A total of 38 theses and dissertations using VLS data have been published around the world, focusing on a range of subjects including risk and insurance, resource management, markets for land, labor and credit and the rural economy. Over 106 journal articles, 108 other research papers/reports and 4 books have used VLS data. Eighteen biological investigations have been conducted in the VLS study villages in India since 1975. In addition, there have been 21 special purpose surveys, which were not part of the original VLS design but were incorporated later to accommodate special areas of interest.

Table 1. Research output using ICRISAT's VLS data	
Research work	Number
M.Sc. and Ph.D. Theses	38
Journal articles	106
Research papers/reports	108
Special purpose surveys	21
Biological investigations	18
Books	4

Although the VLS longitudinal database pertains to the 1975-85 period, there has been persistent demand for it from researchers. Every year, on an average, about 25 requests are received for the panel data from scientists belonging to institutions such as the Food and Agriculture Organization (FAO) and universities in the USA, UK, Germany and Australia. The VLS are an excellent tool with which new and emerging issues can be studied at any time. The database has vital information that can enhance the understanding of changes in investment patterns and impacts over time for future agriculture development and planning.

To understand rain fed farming and the situation of rural households in the SAT, to address emerging issues and to test new hypotheses, the Socioeconomic and Policy Program (SEPP) of ICRISAT, in collaboration with leading institutes and national programs, started the second generation of Village Level Studies in 2001 in two African countries – Burkina Faso in West Africa and Zimbabwe in southern Africa and six locations in Asia.

3. Second-Generation Village Level Studies by GT-IMPI, ICRISAT (2001-2004)

Major Issues Since Suspension of First-Generation of VLS

The first generation of VLS was suspended in all locations in 1985. Since then, numerous changes have occurred in the developing countries of the SAT, profoundly shaping the livelihoods of people dependent on rain fed agriculture. Among these changes are the incidence of HIV/AIDS worldwide, globalization of agriculture markets, feminization of agriculture, deepening of resource crises (in terms of land degradation and water depletion), increased democratization, population growth, urbanization and integration of labor markets. These developments have had and will continue to have a widespread impact on rural poverty, food and nutrition security, environmental concerns and resource competition, especially in regions such as the SAT of India, which have been by and large bypassed by the country's famed Green Revolution. These regions, which have a comparatively limited potential for agricultural growth but are witnessing rapid population growth, are an area of difficulty for an agriculture-based strategy of rural development. To address these issues, therefore, there is need for a comprehensive longitudinal study. In order to address these issues GT-IMPI has decided to resume village Level Studies during 2002 in six villages in Andhra Pradesh and Maharashtra.

With that in view, focus group meetings (FGMs) were conducted in all the VLS villages in 2000/01 to identify and understand the changes that had occurred since the cessation of the first generation of VLS in 1985. Groups of 25-30 villagers, including men and women belonging to landless labor and small, medium and large farm-size categories participated in these meetings and discussed the major issues. Also, exclusive group meetings of women and laborers were conducted to understand their perceptions related to gender and the village labor market. The FGM participants reported many changes, agro-climatic as well as socioeconomic – that had taken place since 1985 and had deeply affected their economies.

The longitudinal database generated by the second-generation VLS will be comparable in quality and richness of data to the first-generation studies. It will provide valuable information to address the major issues mentioned above and help researchers, development planners and policymakers develop improved and suitable technologies, resolve issues related to future agriculture development and planning and provide policy prescriptions to raise the living standards of dry land farmers in the SAT. This panel data relating to different agro-climatic regions will be an International Public Good.

The following major changes are envisaged for study in the second-generation VLS:

A. Changes relating to the panel respondents

- Assets
- Landholding
- Irrigated area
- Permanent migration
- Division of families

B. Changes in the agro-climatic and socioeconomic conditions of VLS villages

- Rainfall pattern
- Water constraints
- Out migration and health issues
- Land transactions
- Cropping patterns
- Soil and nutrient management
- Marketing
- Labor shortage
- Livestock
- Technology adoption
- Credit facilities
- Pest and disease management, and
- Others

C. Coping mechanisms

- Crop diversification
- New loans
- Temporary migration
- New employment opportunities (non-farm occupations, business, etc)
- Postponement of repayments, marriage and investments
- Mortgage of assets
- Sale of assets
- Reduced consumption

Expected Outputs from the Resumption of VLS

Long-Term Outcomes

1. Knowledge base on SAT farming and agricultural households

- Information on agricultural production
- Consumption pattern of households
- Household endowments
- Management of natural resources
- Poverty issues in the SAT
- Constraints to adoption of technologies
- Farmers' coping mechanisms under conditions of uncertainty
- Health and income volatility
- Markets (land, labor, water, etc)

2. Greater understanding of farm-level socioeconomic, agro-biological and institutional issues relevant to the condition of farmers in the SAT for

- Better designing and targeting of technologies
- Better capture of opportunities in SAT agriculture
- Policy formulations and prescriptions

3. The VLS panel database is a public good. A new set of panel data on agriculture in the SAT regions of Asia and Africa would be helpful to scientists, scholars, policymakers and researchers in analyzing agricultural decision-making and technological change.

4. Capacity-building of NARS partners

B. Short-Term Outcomes

1. Information on the capital stock of households will be available after the first survey in these villages. This will enable us to describe capital accumulation since 1985.

2. Information on household income will be available a year after the survey. Changes in sample household income can therefore be documented by the end of the first year.

3. One of the important outcomes will be information on technology diffusion and social learning.

Methodology

Six villages in the states of Andhra Pradesh and Maharashtra that were surveyed in the first generation of VLS (1975-1985) were taken up for the second-generation studies in India (Tables 2 and 3).

A census was taken in these six villages in 2001 and all the households were classified into labor and cultivator groups. Labor households were defined as those that cultivate less than 0.2 ha and receive most of their income from daily labor. Cultivator households were those operating more than 0.2 ha (Table 4). This group was further classified into small farmers, medium farmers and large farmers on the basis of their operational farm size. The farm-size classification used in the first-generation study was retained in order to allow a comparative study of the two sets of data.

Table 2. Villages selected for ICRISAT's second generation of Village Level Studies, 2001/02-2004/05.						
Village	Code	Mandal/ Taluka	District	State	Dist. (km) from ICRISAT	Coordinates
Aurepalle	A	Madgul	Mahbubnagar	AP[1]	70	78°39'E 16°52'N
Dokur	B	Devarakadra	Mahbubnagar	AP	125	77°50'E 16°36'N
Shirapur	C	Mohol	Sholapur	MH[2]	336	75°45'E 17°45'N
Kalman	D	N.Sholapur	Sholapur	MH	348	75°49'E 17°52'N
Kanzara	E	Murtizapur	Akola	MH	528	77°23'E 20°39'N
Kinkheda	F	Murtizapur	Akola	MH	525	77°28'E 20°36'N
1. AP = Andhra Pradesh. 2. MH = Maharashtra.						

Table 3. Profiles of the VLS study areas in India, 2001/02-2004/05.			
Variable	Mahbubnagar	Sholapur	Akola
Villages	Aurepalle, Dokur	Shirapur, Kalman	Kanzara, Kinkheda
Mean rainfall (1975-1984)[1]	Nonassured; 630 mm; 31% CV	Nonassured; 630 mm; 35% CV	Assured; 890 mm; 22% CV
Soil type	Red soils (Alfisols); Low water-retention capacity	Deep black and heavy clay soils (Vertisols); High water-retention capacity	Medium deep black, clay soils (Inceptisols); Medium water-retention capacity
Major crops	Cotton, castor, sorghum, millet, paddy, pigeonpea, groundnut	Rabi sorghum, pigeonpea, other pulses, sunflower, vegetables	Cotton, soybean, sorghum, green gram, pigeonpea, wheat
Number of households (2001)	Aurepalle 649 Dokur 515	Shirapur 580 Kalman 624	Kanzara 338 Kinkheda 170
Sample size	Aurepalle 100 Dokur 80	Shirapur 88 Kalman 94	Kanzara 52 Kinkheda 32
1. Mean rainfall estimates and Cumulative Variance (CV) refer to ten annual observations collected in one study village in each region.			

Table 4. Farm-size classification based on operational landholdings (ha) in villages selected for first-generation (1975/76) and second-generation VLS (2001/02).						
	Region					
	Mahbubnagar		Sholapur		Akola	
Farm size (ha)[1]	Aurepalle	Dokur	Shirapur	Kalman	Kanzara	Kinkheda
Landless	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Small	0.2-1.2	0.2-0.9	0.2-2.0	0.2-3.6	0.2-1.8	0.2-2.0
Medium	1.2-3.2	0.9-2.1	2.0-5.3	3.7-8.5	1.8-5.3	2.0-4.5
Large	>3.2	>2.1	>5.3	>8.5	>5.3	>4.5
1. Operational farm size defined as area of owned land minus area rented/sharecropped-out plus area rented/shared-in.						

All households surveyed in the second generation VLS project (2001-02 to 2004-05) can be integrated with the earlier first generation VLS household data 1975-84. Global Theme on Institutions Markets Policy and Impacts of International Crops Research Institute for Semi-Arid-Tropics (GT-IMPI, ICRISAT) tried to trace all 240 households and their spinoffs from these villages since 1985 when these studies were suspended. Out of 240 panel households 35 households were not traced because of death and permanent migration. Out of remaing 205 households, many families were divided into more than two households due to family division. All the households in the village including original panel and spin offs were classified into labor and cultivator groups. Labor households were defined as those that cultivate less than 0.2 ha and receive most of their income from daily labor. Cultivator households were further classified into small farmers, medium farmers and large farmers on the basis of their operational farm size. The farm-size classification used in the first-generation study was retained in order to allow a comparative study of the two sets of data.

Village	Labour		Small		Medium		Large		All		
	Original and spinoffs	New Selection	Original and spinoffs	New Selection	Original and spinoffs	New Selection	Original and spinoffs	New Selection	Original and spinoffs	New Selection	Total

Table 5. Selection of households for second generation VLS study in 2001-02

Village	Original and spinoffs (Labour)	New Selection (Labour)	Original and spinoffs (Small)	New Selection (Small)	Original and spinoffs (Medium)	New Selection (Medium)	Original and spinoffs (Large)	New Selection (Large)	Original and spinoffs (All)	New Selection (All)	Total
AUR	12	13	9	12	19	18	12	5	52	48	100
DOK	4	16	7	24	11	4	13	1	35	45	80
SHI	10	12	22	21	10	7	2	4	44	44	88
KAL	6	18	28	25	12	2	1	2	47	47	94
KAN	11	2	20	0	13	1	5	0	49	3	52
KIN	8	0	14	0	6	0	4	0	32	0	32
Total	51	61	100	82	71	32	37	12	259	187	446

To improve representativeness of the households, changes were made in the new sample designe to obtain a sample representative (15%) of the population of the households in each village. So, the number of panel households were same (15%) of the population) in these villages. However, all the households that were in the first-generation VLS sample, including any spinoff households whose members continued to reside in the village, were mandatorily included in the new sample in 2001. Female spin-offs, who left the village due to marriage and male spinoff, which left the village for their livelihoods were not included in the sample. New households were selected randomly if the required 15% sample was not filled in each farm-size group by first dynasty households and their spinoffs in all villages except in Akola region villages (Kanzara and Kinkheda). While selecting panel households from each farm size category in 2001, care was taken to include all the households of first generation VLS study in the sample including their spin-offs who are residing in the village. Only 259 households (original and male spin offs) are considered during 2001 survey though more than 300 households (original and spinoffs) were identified because few households belongs to first generation VLS were dropped in Akola villages in Maharashtra due to 15% population limit. Another 187 new households were added, particularly in 2 villages in the Mahbubnagar district of Andhra Pradesh and 2 villages in Sholapur district of Maharashtra by selecting randomly to the panel to complete proportional sampling of 15%. Sample thus increased to 446 in 2001-02 survey. Same number of sample farmers was interviewed up to 2004-05.

Each selected household (old and new) was allotted a household ID. Household ID allocated in the first generation VLS was retained in the second generation survey (Old HH number in household information module) along with new household ID allocated in 2001 so that households surveyed in the second generation VLS project (2001-02 to 2004-05) can be integrated with the earlier first generation VLS household data 1975-84. New households which were added to the sample during 2001 did not contain any old VLS household number in General Endowment Schedule (GES) because they were not part of the first generation survey.

If a selected household was not available for the survey because its members had migrated or were not willing to participate in the study, another was randomly selected from the original list as a replacement. A separate identity code was given to these households (Different numbers were given to replaced households) depending on the farm-size group to which they belonged. Compared to the first generation of studies, the sample size doubled or more than doubled in the four larger VLS villages in Mahbubnagar (Andhra Pradesh) and Sholapur (Maharashtra) districts.

Of the two VLS villages in Akola district, the sample size increased by 30% in Kanzara, but fell by 25% in Kinkheda (Table 5). In all the four Maharashtra villages, the number of large farms in the sample decreased. In general, the proportion of small farms had greatly increased since the earlier VLS while the shares of medium and large farms decreased. This sample distribution reflects the fact that the average size of landholdings is falling even in the SAT due to population pressure. Large and medium-sized farms are becoming smaller on account of fragmentation.

Main Characteristics of ICRISAT's Village Level Studies (VLS)

1. Careful and purposive selection of villages to reflect the agro-climatic features of the regions they represent.

2. Inclusion of landless as well as farmer respondents.

3. Incorporation of agro-biological observations, measurements and experiments with an inter- and multidisciplinary approach.

4. The time series nature of the study involving comprehensive panel data on a large number of households from different socioeconomic and agro-ecological environments.

5. Collection of detailed information about all crop activities on a plot basis.

6. Permanent placement of investigators in the study villages. These investigators have university education in agricultural economics or its equivalent, and possess a rural background with familiarity with local customs, culture and language, etc.

7. Timely analysis of data to answer important questions related to technology design, research allocation priorities and agricultural policy.

8. Inclusion of spinoff units of households surveyed during 1975-85 in the sample for second-generation study.

9. In addition to normal VLS modules, additional questionnaires on household tracking, migration, health and social networks were added to get additional information.

Survey instruments of Data Collection

Specifically designed schedules were prepared to collect information on traditional farming practices and various aspects of household economies. Field investigators interviewed the sample households in every year of the study period to elicit information for these schedules. For the cropping years 2001/02-2003/04, the survey was conducted once a year. Two surveys were conducted for the year 2004/05, the first after the rainy season and the second after the post-rainy season. We moved to high frequency rounds of data collection in July 2005. The information collected include: details of the sample households' assets and endowments including land, livestock, farm implements, irrigation equipment, farm building, consumer durables, etc; cultivation details covering input and output data for each crop or crop mixtures on a subplot basis; utilization of family labor; details of bullock utilization and its economics; and wage employment. Data on all household transactions including income, expenditure, savings, debt, credit, gifts and wage rates. Most of the modules used in the first-generation survey were redeployed for the second generation with minor modifications. As several changes had taken place in the VLS villages since the suspension of the first generation of studies, new modules were introduced to accommodate emerging areas of interest: eg - economics of livestock, benefits from Government welfare programs, health, investment on soil conservation practices and digging wells and bore wells, etc.

Household identifier in the second-generation VLS study (2001-04)

Information collected for different modules in the second generation VLS, was directly computerized without coding it in code sheets. Only a few codes were created and printed under each module to make it easy for field investigators to use wherever applicable. To ensure quality, senior staff members carefully verified and checked the original data sheets in the field and in the office before computerization. The software CSPro was adopted for data entry. As this software facilitates double entry, comparison of the data in two entries reveals any mistakes and inconsistencies.

Common codes were used throughout the survey period. Three key fields identified households: name of the village, landholding class and household number.

Village codes :

		Land holding class codes:	
Aurepalle	Aur	Labor households	Lb
Dokur	Dok	Small farmer households	Sm
Kanzara	Kan	Medium farmer households	Md
Kalman	Kal	Large farmer households	La
Kinkheda	Kin		
Shirapur	Shi		

Household number:

All the households in the sample have a household number, starting with 01 in each farm-size group.

Numbering for replaced households:

Labor households	101-120
Small farm households	121-140
Medium farm households	141-160
Large farm households	161-180

Survey years

2001-02, 2002-03, 2003-04 and 2004-05

The first three letters (initial capitals) of the HHID represent the name of the village, followed by two letters (Initial capital) representing the farm-size group. The last numeric indicates the household number.

Example 1: AurLa12 - The first three letters of this HHID represent the village Aurepalle. The letters La indicate that the household belongs to the large-farm group. The number 12 is the household number.

Example 2: KanSm03 - The first three letters Kan stand for the village Kanzara. The letter Sm indicates that the household belongs to the small-farm group and 03 is the number of the household.

Village	Household number in first generation VLS (1975-84)	Household divided into more families due to family division (1985-2000)	Household number (ID) allocated in second generation VLS in 2001-2004
Table 6.Allocation of household numbers in the second generation VLS survey (2001-04)			
Example-1			
Aurepalle	1	1	AurLa1
	1	2	AurLa2
	1	3	AurLa3
	1	4	Not selected in 2001
Example-2			
Aurepalle	55	No split	AurLa12
Example-3			
Aurepalle	35	1	AurMd7
	35	2	AurSm3
	35	3	AurSm4
	35	4	Not selected in 2001
Example-4			
Aurepalle	0	0	AurSm15 (newly selected in 2001)

Example 1: In Aurepalle village, household belongs to labor group (HH-1) was divided into 4 male spinoffs between 1985-2001. Out of four spinoff, three are available with in the village and another one was migrated to Hyderabad. Based on their operational land holding in 2001, three male spin offs were selected under the group of large farm size with new household numbers as **AurLa1, AurLa2** & **AurLa3** because all three households acquired land between 1984-2001

Example 2: A large farm size group household (HH55) was not divided between1985-2000. Members are continued in the same households (No split). It was identified as **AurLa12.**

Example 3: A small farm size group household (HH 35) was divided into 4 families' between1985-2000. One brother and two sons separated from the original household. All four household (one original and 3 spinoff) are available with in the village. In the sample selection, three households (father and two sons) were included and the fourth household the brother who was separated long back was not included in 2001 survey as he did not show interest due to his personnel reason. Based on operational land holding in 2001, household headed by the father was selected in medium farm size group as (**AurMd7**) and two sons were selected in small farm group (**AurSm3)** and (**AurSm4**).

Example 4: A new household was selected in second generation VLS survey in 2001 in small farm size group by allocating household number as AurSm15. So, this household gets zero in the household number selected in first generation VLS survey and family division.

Access to Data

The computerized dataset is available in MS Excel. Data collected in different years (2001/02, 2002/03, 2003/04 and 2004/05) were given in different file folders. The module name in the questionnaire was used as the file name for the spreadsheets in the folder related the survey year.

The file names of Excel spreadsheets are listed in the following chapters along with a description under each subsection.

4. Household Survey Questionnaire for 2001/02

A broad group of 11 modules was used for collecting socioeconomic data (such as farming, transactions, employment and resource endowments) from sample households for the cropping year 2001/02. Most of the modules were designed to capture the major changes that had occurred since 1985 relating to the households' resources such as land, livestock, farm equipment and consumer durables and respondent perceptions about changes in climate, irrigated area, land transactions, labor market, infrastructure, cropping pattern, adoption of technologies and consumption compared to 1985 when the first generation of VLS were suspended. The contents of the survey instrument are described below.

I. General Information

This module was used to record information about the village, the households in it and the family composition of the sample households.

1.1. Village information: This part of the schedule noted the name of the village and its location (mandal/block, district and state).

1.2. Household information: Information about some general characteristics of the sample households such as the name of the head of household, his/her father's/spouse's name and caste was recorded in this schedule. Those households who are selected for second generation survey during 2001-02 will also be given Old Vls number and farm-size group if they belong to first generation VLS. This will help to link the Second-generation Vls data with First generation Vls Data. Households were assigned to different farm-size groups (labor, small, medium and large) on the basis of the size of their operational landholding in 2001/02 (Same methodology adopted for first-generation VLS). This module also recorded information about the family members of a household if they held a position during 2001/02 by virtue of an election or Government nomination to any village organization such as the village panchayat (assembly), watershed committee, water users' association and education committee etc.

Excel spreadsheet name: 1.1&2.Gen. info

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Village	Name of the survey village
3. Mandal	Name of the mandal/taluka in which the survey village is located
4. District	Name of the district in which the survey village is located
5. State	Name of the state in which the survey village is located
6. Hhid	Household identification (village code, farm-size group and serial number)
7. Farm_size	Farm-size classification (labor, small, medium and large farm)
8. New_vls_no	Household number assigned during second-generation VLS survey 2001/02
9. Old_vls_no	Household number assigned during first-generation VLS survey (1975-85)
10. Head_name	Name of the head of household selected for the survey
11. Son_wife_of	Name of the father or spouse of the head of household
12. Caste	The caste to which the family belongs
13. Elect_nomi_body	Name of the post presently held by the household member in an organization
14. Name_body	Name of the organization to which he/she was nominated/elected

1.3. Family composition: Households were asked to give information about all the family members who share the family kitchen and reside in the household. The survey recorded detailed information about each such member: his/her relationship with the head of household; his/her sex, age, years of education, place of education and its distance from the study village, and his/her main and subsidiary occupations.

Excel spreadsheet name: 1.3.Fam. comp

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the individual member residing in this household
4. Age	Completed years of age as of July 1 (beginning of the agriculture year)
5. Sex	Sex (Male or Female) of each member of the family
6. Yrs_education	The year in which the individual member finished his/her education
7. Place_education	Name of the place where the member studied
8. Dist_education	Distance (km) from the village
9. Rel_with_head	Relationship of individual member with the head of household
10. Occupation1	The occupation from which the individual member derives the highest proportion of his income or to which he devotes his time
11. Occupation2	The occupation from which the individual member derives his second highest proportion of income or to which he devotes his time
12. Occupation3	The occupation from which the individual member derives his third highest proportion of income or to which he devotes his time

II. Landholding

This schedule was designed to record details of land ownership, constituting operational holding of the household during the two VLS periods. It included land actually operated as well as that kept fallow. In other words, the use status of the land did not make any difference as far as our definition of operational holding was concerned. We recorded the name of each plot along with its area, ownership status (owned/leased/shared-in or leased/shared-out), the cropping pattern and benefits perceived by the farmer from any soil and water conservation (SWC) practices adopted by him.

2.1. Landholding in 1985 and 2001: Households were asked to provide information about their land ownership (owned, leased/shared-in, leased/shared-out) to facilitate computation of their operational holding in 1985, when the first of generation VLS was suspended, and in 2001, when the second generation of VLS began. This module also provides information about the type of land (dry, irrigable or permanent fallow) operated by the household during the two study periods.

<u>Excel spreadsheet name:</u>   2.1.Land holding

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Own_dry_85	Owned dry land (acres) in 1985/86
4. Own_dry_01	Owned dry land (acres) in 2001/02
5. Own_irri_85	Owned irrigated land (acres) in 1985/86
6. Own_irri_01	Owned irrigated land (acres) in 2001/02
7. Own_pf_85	Owned permanent fallow land (acres) in 1985/86
8. Own_pf_01	Owned permanent fallow land (acres) in 2001/02
9. Own_tot_land_85	Owned total land (acres) in 1985/86
10. Own_tot_land_01	Owned total land (acres) in 2001/02
11. Lea_in_dry_85	Leased-in dry land (acres) in 1985/86
12. Lea_in_dry_01	Leased-in dry land (acres) in 2001/02
13. Lea_in_irri_85	Leased-in irrigated land (acres) in 1985/86
14. Lea_in_irri_01	Leased-in irrigated land (acres) in 2001/02
15. Lea_in_pf_85	Leased-in permanent fallow land (acres) in 1985/86
16. Lea_in_pf_01	Leased-in permanent fallow land (acres) in 2001/02
17. Lea_in_tot_land_85	Leased-in total land (acres) in 1985/86
18. Lea_in_tot_land_01	Leased-in total land (acres) in 2001/02
19. Sha_out_dry_85	Shared-out dry land (acres) in 1985/86
20. Sha_out_dry_01	Shared-out dry land (acres) in 2001/02
21. Sha_out_irri_85	Shared-out irrigated land (acres) in 1985/86
22. Sha_out_irri_01	Shared-out irrigated land (acres) in 2001/02
23. Sha_out_pf_85	Shared-out permanent fallow land (acres) in 1985/86
24. Sha_out_pf_01	Shared-out permanent fallow land (acres) in 2001/02
25. Sha_out_tot_land_85	Shared-out total land (acres) in 1985/86
26. Sha_out_tot_land_01	Shared-out total land (acres) in 2001/02
27. Oper_dry_85	Operated dry land (acres) in 1985/86
28. Oper_dry_01	Operated dry land (acres) in 2001/02
29. Oper_irri_85	Operated irrigated land (acres) in 1985/86
30. Oper_irri_01	Operated irrigated land (acres) in 2001/02
31. Oper_pf_85	Operated permanent fallow land (acres) in 1985/86
32. Oper_pf_01	Operated permanent fallow land (acres) in 2001/02
33. Oper_tot_land_85	Total operated land (acres) in 1985/86
34. Oper_tot_land_01	Total operated land (acres) in 2001/02

2.2. Plot characteristics and soil conservation practices: We recorded information about each plot owned by the household (local name of the plot, distance from the family home and from the irrigation source, total area, irrigable area, source of irrigation, land tenure, soil type, depth of soil and fertility, slope, soil degradation, number of trees and value in Rs/acre). The following codes

were used in the module for description of the land tenure, soil type, depth, fertility, slope and degradation:

Land tenure: 1 = Owned; 2 = Leased-out; 3 = Shared-out; 4 = Leased-in; and 5 = Shared-in.

Soil type: 1 = Red soil; 2 = Sandy soil; 3 = Murram soil; 4 = Deep black; 5 = Medium black; 6 = Shallow soil; 7 = Sandy loam; 8 = Saline; and 9 = Alkaline.

Soil depth: 1 = Shallow (<0.5 m); 2 = Medium (0.6-1 m); 3 = Deep (1.1-1.5 m); and 4 = Very deep (>1.5 m).

Soil fertility: 1 = Very poor; 2 = Poor; 3 = Good; and 4 = Very good.

Slope: 1 = Level (0-1%); 2 = Slight slope (1-3%); 3 = Medium slope (3-10%); and 4 = High slope (>10%)..

Soil degradation: 1 = No problem; 2 = Soil erosion; 3 = Nutrient depletion; 4 = Water logging; 5 = Salinity/alkalinity/acidity; and 6 = Others (specify).

Excel spreadsheet name:　　　2.2.Plot char.and soil cons

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Local name given to a plot for identification by the household
4. Serial_no	Serial number allocated to a particular plot
5. Dist_home_km	Distance (km) between household and plot
6. Dist_irri_source	Distance (km) between the plot and nearest water source
7. Area_acres	Total area (acres) of the plot
8. Irri_area	Area which under normal circumstances receives irrigation
9. Irri_source	Source of irrigation (tank, well, canal, etc.)
10. Land_tenure	Ownership of the plot (codes)
11. Soil_type	Description of the major soil type of the plot (codes)
12. Soil_depth	Depth (cm) of the soil, which is useful for crop growth
13. Soil_fertility	Household's opinion on fertility of the plot (codes)
13. Slope	Slope of the plot based on its geographical location (codes)
14. Soil_degr	Loss of soil due to runoff (codes)
15. No_trees	Number of trees of value located in this plot

2.3. Farmers' perception of benefits from soil conservation practices: We asked farmers what they thought of the plot-wise benefits they had received or not received from adopting different SWC practices. If the household had adopted any type of soil conservation measure on any of its plots, we noted the year of adoption, the total cost, the farmer's share in that cost, the number of years for which benefits were expected from these measures and the farmer's perception of benefits (or disadvantages) in improving soil fertility, controlling soil erosion and improving crop productivity. We also made a note of what they thought were the main factors responsible for such positive and negative effects. This module also provides information about

the mitigation measures adopted to counteract soil fertility decline (such as use of more farmyard manure and chemical fertilizer, seasonal fallow and shift to new crops). The following codes were used for different types of soil conservation measures, perceived benefits and mitigation measures adopted by the sample households.

Soil conservation measures: 0 = Did not adopt any measure; 1 = Land leveling; 2 = Field/ boundary bunds; 3 = Contour bunds; 4 = Broad bed and Furrow; 5 = Tree/grass plantation; 6 = Check dams; 7 = Water harvesting structures (farm pond, etc.); and 8 = Others (specify).

Write zero if the soil conservation structures were constructed by the Government on free of cost.

If farmer perceived any yield benefits (use codes): 1 = Increased by 10%; 2 = Increased by 11-25%; 3 = Increased by 26-50%; 4 = Increased by 51-75%; and 5 = Increased by more than 75%.

If farmer did not perceive any yield benefits (use codes): 6 = No change; 7 = Fell by 10%; 8 = Fell by 11-25%; 9 = Fell by 26-50%; 10 = Fell by 51-75%; and 11 = Fell by more than 75%.

Mitigation measure: 1 = Increased FYM use; 2 = Increased use of chemical fertilizer; 3 = Seasonal fallow; 4 = Soil and water conservation measures; 5 = Shift to new crops; and 6 = Others (specify).

<u>Excel spreadsheet name:</u>   2.3.Benefits soil cons

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_no	Serial number allocated to the particular plot
4. Swc_type	Type of soil conservation measure adopted (codes)
5. Yr_adoption	Year of adoption of soil conservation measure
6. Total_cost	Total cost (Rs) of soil conservation measure
7. Farmer_share	Share (%) of the household in the total cost of soil conservation measure
8. Maint_cost	Maintenance cost of structure (Rs) per year
9. Yrs_benefit_expe	Number of years for which the household expected benefits from this measure
10. Benefit_fertility	Benefits perceived/not perceived in improving soil fertility (codes)
11. Benefit_erosion	Benefits perceived/not perceived in controlling soil erosion (codes)
12. Benefit_productivity	Benefits perceived/not perceived in improving productivity (codes)
13. Benefit_others	Benefits perceived/not perceived in other benefits if any (codes)
14. Benefit_reasons1	Main reason given by the household for this benefit
15. Benefit_reasons2	Secondary reason given by the household for this benefit
16. Mitigation_measures	Mitigation measures used to counteract soil fertility decline (codes)

III. Cropping Pattern

3.1. Cropping pattern: This module recorded information about crops grown by the household during the 2001/02 cropping year. The following plot wise details were recorded: the local name of the plot, ownership of the plot (owned, leased/shared-in or leased/shared-out), crops sown in each season (rainy, postrainy and summer seasons) and proportion of area under each crop if the

farmer grew intercrops or mixed crops, variety (local/improved/hybrid) of each crop, area sown, season, irrigated area and crop outputs (main products and byproducts of each crop) and their market prices at the time of harvest. The following codes were used:

Land ownership status: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); Shared-out (SO).

Crop variety: Local, improved, hybrid.

Excel spreadsheet name: 3.1.Crop. pattern

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name_code	Local name and code given to the plot for identification
4. Ownership_status	Ownership of the plot (codes)
5. Cropping_ pattern	Sole/inter/mixed crop
6. Crop_name	Name of the crop/crop mixture grown by the household
7. Proportion	Ratio of two crops if intercrop, or proportion of each crop if mixed
8. Variety	Name of the crop variety/varieties
9. Crop_area	Area in acres under that particular crop/crop mixture
10. Season	Name of the season (rainy and postrainy seasons, summer) in which the crop is grown
11. Irri_area	Actual area that received irrigation for that crop
12. Main_prod_kg	Main production harvested (kg)
13. Prod_price	Market price at harvest time (Rs/kg)
14. Byprod_qt	Byproduct harvested (qts)
15. Byprod_price	Market price of byproduct at harvest time (Rs/qt)

3.2. Crops planted until the end of July 2002: Similarly the interviewers sought information on the farmers' preferred crops for the rainy season of 2002/03. This was an attempt to get an idea about the future-cropping pattern. Detailed plot-wise information about name, ownership of the plot (own, leased/shared-in or leased/shared-out), crops grown and proportion of area under each crop if farmer growing inter or mixed crops, variety (local, improved, hybrid) of each crop, area planted, season, irrigated area and crop outputs (main and by-products of each crop) and their market prices existing at the time of harvest. The following codes were used:

Land ownership status: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); and Shared-out (SO).

Excel spreadsheet name: 3.2.Crops planted till july02

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name_code	Local name and code given to plot for identification

Continued

Fields	Description
4. Ownership_status	Ownership of the plot (codes)
5. Cropping_ pattern	Sole/inter/mixed crop
6. Crop_name	Name of the crop/crop mixture grown by the household
7. Proportion	Ratio of two crops if intercrop or proportion of each crop if mixed
8. Variety	Name of the crop variety/varieties
9. Crop_area	Area in acres under that particular crop/crop mixture
10. Season	Name of the season (rainy, postrainy and summer) during which the crop is grown
11. Irri_area	Actual area that received irrigation for that crop
12. Main_prod_kg	Main product harvested (kg)
13. Prod_price	Market price at harvest time (Rs/kg)
14. Byprod_qt	Byproduct harvested (qts)
15. Byprod_price	Market price at harvest time (Rs/qt)

IV. Resource Position in 1985 and 2001/02

This module contains five subsections designed for collecting information about resources held by the sample households at two points in time: in 1985 at the end of the first generation of VLS, and in 2001/2002 when the second generation started. The information recorded includes rather sensitive issues such as consumer durables including gold and silver. This module provides information on the resource endowments (land, livestock, farm equipment, residential house, consumer durables) of the household and the total value of these assets at the two points in time.

4.1. Land: The particulars of land ownership (dry and irrigated) by the household, unit price (Rs/ acre) and the total value of the land in 1985 and 2001 were recorded by the interviewers.

Excel spreadsheet name: 4.1.Resource-Dry land

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Dl_qty_1985	Dry land (acres) owned in 1985/86
4. Dl_price_1985	Market price (Rs/acre)
5. Dl_val_1985	Total value (Rs) of dry land in 2001/02
6. Dl_qty_2001	Dry land (acres) owned in 2001/02
7. Dl_price_2001	Market price (Rs/acre)
8. Dl_val_2001	Total value (Rs) of dry land in 2001/02

Excel spreadsheet name: 4.1.Resource-Irri. Land

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. IL_qty_1985	Irrigated land (acres) owned in 1985/86

Fields	Description
4. IL_price_1985	Market price (Rs/acre)
5. IL_val_1985	Total value (Rs) of irrigated land in 2001/02
6. IL_qty_2001	Irrigated land (acres) owned in 2001/02
7. IL_price_2001	Market price (Rs/acre)
8. IL_val_2001	Total value (Rs) of irrigated land in 2001/02

4.2. Livestock: This part of the module provides information about the number of livestock (draft, milch and young cattle) and small ruminants (goat, sheep, pigs and poultry) owned by the household and their total value in 1985 and 2001/2002.

Excel spreadsheet name: 4.2.Resource-Livestock

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Resources	Type of farm implements including small implements
4. Qty_1985	Number of farm implements owned in 1985/86
5. Tot_val_1985	Total value (Rs) of implements owned in 1985/86
6. Qty_2001	Number of farm implements owned in 2001/02
7. Tot_val_2001	Total value (Rs) of farm implements in 2001/02

4.3. Farm equipment: If the household owned any major and minor farm equipment (tractors, threshers, electric motors, sprinklers, sprayers, bullock carts and wooden or iron farm implements) interviewers noted the details, as also their total value in 1985 and 2001.

Excel spreadsheet name: 4.3.Resource-Farm equip

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Resources	Type of farm implements including small implements
4. Qty_1985	Number of farm implements owned in 1985/86
5. Tot_val_1985	Total value (Rs) of implements owned in 1985/86
6. Qty_2001	Number of farm implements owned in 2001/02
7. Tot_val_2001	Total value (Rs) of farm implements in 2001/02

4.4. Farm Building: Similarly, information about household facilities (type of house, toilets, bathroom, electricity, tap water connection), residential plots and farmhouse owned by the family at different points of time was collected and their total value was assessed for 1985 and 2001.

Excel spreadsheet name: 4.4.Resource-Farm building

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Resources	Type of residential building, farmhouse, residential plots
4. Qty_1985	Number/sq. ft owned in 1985/86
5. Tot_val_1985	Total value (Rs) in 1985/86
6. Qty_2001	Number/sq. ft owned in 2001/02
7. Tot_val_2001	Total value (Rs) of residential/farm house in 2001/02

4.5. Consumer durables: Based on respondent replies, interviewers noted the total value (1985 and 2001) of the consumer durables (gold and silver, two-wheeler vehicles, refrigerator, telephone, television, furniture, fans, radio, liquefied petroleum gas stove and connection, utensils, clothing, etc.) owned by the sample households.

Excel spreadsheet name: 4.5.Resource-Cons. Durables

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Resources	Type of consumer durables owned (gold, refrigerator, TV, etc)
4. Qty_1985	Number owned in 1985/86
5. Tot_val_1985	Total value (Rs) in 1985/86
6. Qty_2001	Number owned in 2001/02
7. Tot_val_2001	Total value (Rs) of consumer durables in 2001/02

V. Major Changes in Socioeconomic, Agro-biological and Institutional Aspects

Most farmers perceive that climatic conditions (quantum and distribution of rainfall, temperature and the water table, etc) have been changing in recent years. We recorded their perceptions on the following questions: changes in the rainfall pattern; irrigated area; number of attempts made by the household to dig wells and bore wells to get irrigation water; changes in the ownership of land; the number of land transactions; land quality and values; and the status of the labor market in the village at present compared to that which existed in 1985. We also recorded the reasons for any changes that might have occurred. Information regarding the household members' participation in the village labor market, out-migration, caste and other occupations, financial assets and liabilities of the household and their participation in chit funds (nonformal financial enterprises) and self-help groups (SHGs) was also collected.

5.1. Perceptions on climatic changes: Respondents were asked to furnish their perceptions on changes in the rainfall pattern, changes in the irrigated area under different crops and the number of attempts made by their household to dig wells and bore wells to get irrigation water. They were also asked to compare this situation with that which existed in 1985 and to state the reasons for any changes they perceive.

5.1.1. Changes in the rainfall pattern: Survey personnel asked farmers about changes in the quantum and distribution of rainfall, the number of rainy days, outlayer events, arrival of the monsoons, availability of water in wells, bore wells and tanks and the temperature in different seasons.

Excel spreadsheet name: 5.1.1. Changes-Rainfall

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_rainfall	Household's perceptions about changes in rainfall compared to 1985
4. Characteristics	Characteristics (quantum, distribution, rainy days, temperature, etc)
5. Description	Perceptions (increased/decreased/no change)
6. Main_reasons	Main reasons cited by the household for such a change

5.1.2. Changes in the irrigated area operated by the household: Information regarding farmer-perceived changes in the irrigated area under paddy, groundnut, cotton, vegetables, sugarcane, onion and maize were recorded in this module.

Excel spreadsheet name: 5.1.2. Changes-Irri. Area

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_irrigated	Perceptions about changes in irrigated area since 1985
4. Crops	Names of crops grown under irrigation by the household
5. Irri _area_1985-86	Irrigated area under the crop in 1985/86
6. Irri _area_2001-02	Irrigated area under the crop in 2001/02
7. Irri_area_status	Irrigated area has increased/decreased/no change since 1985
8. Reasons_Inc_dec	Main reasons cited by the household for such a change

5.1.3. Attempts to dig wells or bore wells: The attempts made by the household to dig wells and bore wells, drill in-well bores or deepen wells were recorded in this module. We also noted the depth of each such attempt, the number of successful attempts and the total amount of money spent on successful as well as failed attempts.

Excel spreadsheet name: 5.1.3. Changes-Wells

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_wells	Type of irrigation sources (wells, bores, in-well bores and deepening)
4. No_ow	Number of attempts to dig open wells since 1985
5. Depth_ow	Average depth (ft) of each attempt
6. Success_ow	Number of successful attempts to dig open wells
7. In_use_ow	Number of dug wells presently in use

Fields	Description
8. Tot_amt_ow	Total amount (RS) spent on such attempts, including failures
9. No_bw	Number of attempts to dig bore wells since 1985
10. Depth_bw	Average depth (ft) of each attempt
11. Success_bw	Number of successful attempts to dig bore wells
12. In_use_bw	Number of bore wells presently in use
13. Tot_amt_bw	Total amount (Rs) spent on such attempts, including failures
14. No_iwb	Number of attempts to drill in-well bores since 1985
15. Depth_iwb	Average depth (ft) of each attempt
16. Success_iwb	Number of successful attempts to drill in-well bores
17. In_use_iwb	Number of in-well bores presently in use
18. Tot_amt_iwb	Total amount (Rs) spent on such attempts, including failures
19. No_dw	Number of attempts to deepen wells since 1985
20. Depth_dw	Average depth (ft) of each attempt
21. Success_dw	Number of successful attempts to deepen wells
22. In_use_dw	Number of deepened wells presently in use
23. Tot_amt_dw	Total amount (Rs) spent on such attempts, including failures

5.2. Changes in the asset position (land, labor, credit): This module explains changes in land ownership, the number of land transactions, the present status of the labor market in the village compared to 1985 and the perceived reasons for such changes. Information regarding household members' participation in the village labor market, out-migration, participation in caste and other occupations was also collected.

5.2.1. Changes in the ownership status of land: Information on changes in land ownership through land transactions made by the household since 1985 were recorded in this module. If the respondent household had made a land transaction, then we also recorded the type of transaction (sale, purchase, gift and lost land), the year, area and price.

Excel spreadsheet name: 5.2.1.Changes-Land ownership

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_ownership	Changes of land ownership since 1985
4. Type_transaction	Transactions such as sale, purchase, gift, division, etc
5. Year	Year in which the transaction took place
6. Area_acres	Area (acres)
7. Price_acres	Unit price (Rs/acre)

5.2.2. Land and related aspects: We recorded information about the number of land transactions made by the household in the previous 15 years, the number of parcels of land owned by it, the present irrigation status of the land, and any increase/decrease in land values compared to 1985. Information related to land tenancy arrangements (leased/shared-in and leased/shared-out) was also recorded in comparison with the relevant situation in 1985.

Excel spreadsheet name: 5.2.2.Changes-Agri. Land

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Characteristics	Land characteristics (transactions, plots, quality, etc) since 1985
4. Status	Increased/decreased/no change
5. Reasons	Reasons given by the household for such changes

5.2.3. Status of labor market in the village: The survey noted the perceptions of the sample households regarding employment opportunities for farm and non-farm work and opportunities for monthly salaried jobs for regular farm servants in the village labor market. This module recorded details about the present employment status (increased, decreased or no change) compared to 1985 and the reasons for any changes. It also provides information about the number of hours of work, the daily wage rate and whether the contract nature of employment has increased, decreased or remained the same since 1985.

Excel spreadsheet name: 5.2.3.Changes-Lab. Market

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Characteristics	Characteristics of the village labor market since 1985
4. Status	Increased/decreased/high/low/surplus/shortage/no change
5. Reasons	Reasons given by the household for such changes

5.2.4. Participation of household members in the village labor market: This part of the exercise recorded information about the participation of family members in farm and non-farm work on a daily or monthly basis during 2001/02. Information was also collected on the total number of employment days, the wage rate, total earnings, involuntary unemployment days and the amount received as advance per each individual who participated in the labor market.

Excel spreadsheet name: 5.2.4.Mem. in lab. Market

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in village labor market in 2001
4. Sex	Gender (Male/Female)
5. Status	Daily wage, monthly salaried job, etc.
6. Work_type	Farm work or non-farm work
7. Emp_days	Number of days the member got employment
8. Wage_rate	Average wage rate in rupees/day
9.Tot_earning	Total wages (Rs) received during 2001/02
10. Invl_unemp_days	Number of involuntary unemployment days
11. Adv_rec	Advance payment (Rs) received if any

5.2.5. Temporary out-migration: We also recorded information about household members who migrated from the village for daily wage employment (farm or non-farm work) or part/full-time monthly salaried jobs during 2001/02. Details of their sex, place of work, distance from the village, type of work, employment days/months, wage rate per day/month, total earnings, amount spent during his/her stay at the work place, involuntary unemployment days and the amount received as advance were also recorded.

Excel spreadsheet name: 5.2.5.Mem-Migrated

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who temporarily migrated out in 2001/02
4. Sex	Gender (Male/Female)
5. Place_migr	Name of the place to which the person migrated
6. Distance	Distance (km) from village
7. Work_type	Type of work (farm, non-farm, etc.) performed by the migrant
8. Emp_days_mon	Number of days the member got employment
9. Wage_rate	Average wage rate (Rs/day)
10. Tot_earning	Total wages (Rs) received during 2001/02
11. Amt_spent	Total amount (Rs) spent at work place during 2001/02
12. Invl_unemp_days	Number of involuntary unemployment days
13. Adv_rec	Advance payment (Rs) received if any

5.2.6. Participation in caste occupations: Some households still depend upon traditional caste occupations as a source of income. This module recorded information about members of such households. These were toddy-tapers and sellers, carpenters, goldsmiths, masons, washermen, barbers, butchers, potters, basket-makers, weavers, cobblers and providers of religious services). This module also gives information about gender, type of occupation, total days worked, average working hours per day, and the total earnings of by each individual.

Excel spreadsheet name: 5.2.6.Mem. in caste occ

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in caste occupations in 2001/02
4. Sex	Gender (Male/Female)
5. Occu_type	Type of caste occupation (goldsmith, washerman, carpenter)
6. Days_worked	Number of days of work
7. Working_hrs	Average working hours per day
8. Inc_rec	Approximate total income received (Rs) during 2001/02

5.2.7. Participation in other occupations: Information about household members who took up noncaste occupations (tailoring, shop-keeping, mechanic, selling vegetables and fruits, driving and autorickwshaw, financing, leaf-plate making, mat-weaving and selling and other part/full-time

jobs) was collected in this module along with details of the member's gender, type of occupation, total days worked, average working hours per day and his/her total earnings.

Excel spreadsheet name: 5.2.7.Mem. in other occ

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in other occupations in 2001/02
4. Sex	Gender (Male/Female)
5. Occu_type	Type of occupation (auto, business, mat weaving, etc)
6. Days_worked	Number of days of work
7. Working_hrs	Average working hours per day
8. Inc_rec	Approximate total income (Rs) received during 2001/02

5.2.8. Financial assets and liabilities: Surveyors recorded details of indebtedness, credit, insurance policies, deposits, etc in this module. They noted relevant information about the financial assets and liabilities of the household at the beginning of the agriculture year and also the sources of borrowing, amount borrowed, purpose of borrowing and rate of interest per year. Information about the household's lending activities, savings in banks, insurance companies, cooperative societies, self-help groups, post office, chit funds (nonformal financial activities) and the share market was also collected.

Excel spreadsheet name: 5.2.8.Financial assets & liabilities

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Type	Financial sources (banks, money lender, cooperative groups, friends, relatives, etc.)
5. Amount	Amount in rupees
6. Purpose	Purpose (farm inputs, marriage, education, investment, etc.)
7. Int_rate	Rate of interest (%)
8. Outstanding	Outstanding amount (Rs) as of July 1, 2001

5.2.9. Participation in chit funds and self-help groups: Many nonformal finance cooperatives called chit funds and self-help groups (SHG) have started operations in villages in recent years. Many women join SHGs as members and contribute a small amount of their savings every month. They can also access these funds as loans for small enterprises such as buying milch animals, opening a shop, and buying inputs for crops, etc. Men enroll as members of chit funds. This module provides information about the participation of a household's members in chit funds and SHGs. It also gives detailed information about the total membership of the SHG/chit fund, the monthly contribution of each member, the amount accumulated as of July 1, 2001 and the household's share of the grant given by the Government, the total amount of the chit fund, etc. It also records the purpose for which the household member used the money drawn from the chit fund.

Excel spreadsheet name: 5.2.9.Mem-Chit funds

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Program	Member of a self-help group or chit fund
4. Tot_mem	Total membership of that organization
5. Mon_contribution	Amount contributed by each member per month
6. Amt_accu	Total amount accumulated by by the household at the end of June 2001
7. Govt_share	Share of money contributed by government to the SHG fund
8. Tot_amt	Total amount of the chit in which the household participated
9. Auction_yes_no	Whether the household got the amount in the open auction of the chit fund
10. Amt_rec	Total amount received in the auction
11. Spending_purp	Purpose for which the amount was spent

5.2.10. Changes in the village infrastructure: Survey staff recorded information/perceptions about development of roads, drainage, markets, communication, health and medical services, drinking water, transport, standard of living and education facilities in 2001/2002 in order to study the contrast with the situation in 1985.

Excel spreadsheet name: 5.2.10.Changes in the village

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Facilities	Infrastructure facilities in the village (roads, drainage, health, literacy)
4. Impr_or_not	Present status (improved or not improved) since 1985
5. Reasons	Reasons given by the household for such changes

5.3. Changes in the cropping pattern: The households' perceptions on the present cropping pattern, the major changes (increase/decrease) that have occurred in crop areas and the reasons for such changes were deemed important. This module recorded information about cropping pattern changes, adoption of new crop technologies and soil conservation practices adopted by the household to increase crop productivity and sustain soil quality.

5.3.1. Major changes in the cropping pattern since 1985: Information on cropping pattern changes as regards the areas of different crops (increase, decrease or constant) since 1985 were recorded in this module. This module also gives information about any new crops grown by the household or any that have been discontinued and the reasons for such changes.

Excel spreadsheet name: 5.3.1.Changes-Cropping pattern

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crops	Crop area increased/decreased/constant/stopped
4. Main_reason1	First main reason given by household for such a change
5. Main_reason2	Second main reason given by household for such a change
6. Main_reason3	Third main reason given by household for such a change

5.3.2. Adoption of technologies: Surveyors documented information about the sample households' adoption (full/partial)/nonadoption of machinery such as tractors, tropiculture, power sprayers and dusters, harvester and threshers and technologies such as improved seed, chemical fertilizers, pesticides and integrated pest and disease management strategies. If a household had adopted any such technology, then information about the percentage of area covered by it was recorded too. If the household did not adopt such technologies, then the factors responsible for partial or nonadoption were also recorded. This module also provides information about the percentage of area covered by soil conservation practices (contour bunding, field bunds, bed and furrow system, gully control checks, planting across the slope, check dams and farm pond) and the reasons for partial/non adoption.

Excel spreadsheet name: 5.3.2. Technologies adopted

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Type_tech	Type of technologies including soil conservation practices
4. Adoption_type	Type of adoption (adopted/not adopted/partially adopted)
5. Prct_area_covered	Percentage area covered by each technology
6. Non_adop_reasons	Reasons for partial/nonadoption of certain technologies

5.4. Changes in the Consumption Pattern

5.4.1. Major changes in the present consumption pattern: The purpose of this module was to compute the consumption quantities of different food items and the total expenditure incurred by the household on food and nonfood items. It was also designed to record crop production expenditure such as spending on farm inputs and labor wages during 2001/02. The module explains whether consumption quantities of cereals, pulses and other food and nonfood items had increased, decreased or remained changed since 1985. It also provides information about the quantity and unit price of food consumed per day/month/year. Similarly, the total expenditure incurred on crop production inputs and labor wages was also recorded for 2001/02.

Excel spreadsheet name: 5.4.1. Changes-Consumption pattern

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Food_items	Type of food and nonfood items consumed (rice, milk, vegetables, tea, cloth)
4. Change	Present status (increased/decreased/no change) compared to 1985
5. Qty_kg_ltr	Quantity (kg/liters) required for the family (estimate)
6. Item_d_m_y	Requirement per day/month/year
7. Unit_price	Market price/purchase price per unit (Rs/kg or liter)
8. Tot_price	Total value in rupees

VI. Impact of Government Programs

The Union and State Governments implement more than 40 development and poverty-alleviation programs for the rural poor. These programs are related to land distribution, subsidies on house and toilet construction, family planning, self-employment, watershed development, public distribution system (PDS), drought relief, crop insurance, support for bonded and child labor, subsidies given on livestock, digging wells and bore wells, LPG gas connections, agricultural inputs and machinery, etc. This module was designed to capture the benefits received by the sample households from such programs.

6.1. Benefits from Government programs: Households were asked to recall the programs that had been functioning in the village since 1985, and the benefits received by them since then. If the household had benefited either in the form of cash or kind from any of these programs, then the year and the amount received was recorded.

Excel spreadsheet name: 6.1.Benefited by Govt. prog 1985

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Program	Name of the welfare program
4. Yes_no	Benefited (yes/no) from this program since 1985
5. Year	Year in which the household benefited from the program
6. Amt_benefited	Total amount benefited from the welfare program

6.2. Benefits from Government programs during 2001/02: The households were asked to list all the Government programs currently operational in the village and state the total amount they had received as benefits from them.

Excel spreadsheet name: 6.2.Benefited by Govt. prog 2001

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Program	Name of the welfare program
4. Yes_no	Benefited/did not benefit from this program during 2001/02
5. Amt_benefited	Total amount benefited from the welfare program

VII. Coping Mechanisms

Crop failures have become more common in recent years due to drought, uneven distribution of rainfall at critical stages of crop growth and severe pest and disease constraints. Landless households have been affected by the lack of employment opportunities within the village as a consequence of crop failures. Such setbacks require the households to look for strategies to cope with falling income.

7.1. Effect of droughts on crop production: Each household was asked whether he/she had since 1985 experienced severe drought, pests and diseases that were responsible for a shortfall of income.

7.2. Shortfall of income in different years: If the answer was yes, the household was asked to mention the years and the percentage of income that it had lost due to crop failure in different drought years.

7.3. Coping mechanisms: To cope with falling income, households generally adopt some coping mechanisms during drought years. So information about such strategies adopted by the household was recorded in order of importance. We also recorded the strategies adopted if the shortfall of income was for only one year and the strategies for more than one year.

Excel spreadsheet name: 7.1&2.Years-shortfall of income

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Drought_yes_no	Severe drought experienced since 1985 (yes/no)
4. Yrs_shortfall	If yes, different drought years
5. Prct_shortfall	Percentage of shortfall of income during that year

Excel spreadsheet name: 7.3.Coping mech

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Adop_cop_mech	Coping mechanisms adopted due to shortfall of income (yes/no)
4. Cop_mech_one_yr	Type of coping mechanisms adopted if drought was for one year
5. Cop_mech_yrs	Type of coping mechanisms adopted if drought was more than one year

VIII. Major Source of Income during 2001/2002

We gathered information about the net annual income of each sample household during 2001/02 from different sources. To compute net income of a household, all possible income generation activities taken up by it such as agriculture, labor earnings from farm and non-farm work, livestock, caste and other occupations, salaried jobs, business, handicrafts, migration, remittances, etc were listed and the gross income and expenditure from each source was recorded.

Excel spreadsheet name: 8.Major sources of income

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Sources	Household's major sources of income
4. Gross_inc	Gross income received from each particular source
5. Expenditure	Expenditure incurred (wages, rent or others)
6. Net_inc	Net income from each source (gross income – expenditure)

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IX. Others

This module was designed to collect information about production constraints in dryland agriculture, sources of information for adoption of agriculture technologies and utilization of crop production during 2001/02.

9.1. Major production constraints in dry land agriculture: Information was elicited from the households about the major production constraints they faced. The major constraints in sorghum, millet, maize, groundnut, pigeonpea, castor, cotton and sunflower have been drought, pests and diseases, weeds, poor soil, too much rain and poor seed, etc. Based on their experience, farmers ranked the major production constraints in order of importance for each crop.

Excel spreadsheet name: 9.1.Major prod. Const-dry land

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crops	Names of crops grown by the household in its dry land field
4. Drought	Ranking by the household if drought is a constraint for the crop
5. Pest	Ranking by the household if pest is a constraint for the crop
6. Disease	Ranking by the household if disease is a constraint for the crop
7. Weed	Ranking by the household if weed is a constraint for the crop
8. Poor_soil	Ranking by the household if poor soil is a constraint for the crop
9. Excess_rain	Ranking by the household if excess rain is a constraint for the crop
10. Poor_seed	Ranking by the household if poor seed is a constraint for the crop
11. Other	Ranking by the household if others is a constraint for the crop
12. Specify_pest	Ranking by the household if specific pest is a constraint for the crop
13. Specify_diseases	Ranking by the household if specific disease is a constraint

9.2. Sources of information on dry land agriculture: Farmers depend on several sources of information besides learning from their own experience when they adopt new technologies. Survey personnel collected about the farmers' sources of information on improved seed, chemical fertilizers, pesticides, adoption of crop rotation, soil and water conservation and herbicide application. Farmers ranked their sources of information (such as progressive farmers, extension personnel, shop-keepers, Krishi Vigyan Kendras, relatives, friends, TV, radio and newspapers) in order of importance.

Excel spreadsheet name: 9.2.Source of info-Dry land agri

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Decision	Type of information/technologies adopted for dryland agriculture
4. Prog_farmers	Rank given if progressive farmers are a source of information
5. Extension	Rank given if extension personnel are a source of information

Continued

Fields	Description
6. Shopkeeper	Rank given if shop-keepers are a source of information
7. Kvk	Rank given if Krishi Vigyan Kendras are a source of information
8. Rel_friends	Rank given if relatives and friends are a source of information
9. Tv_media	Rank given if media are a source of information
10. Others	Rank given if others are a source of information

9.3. Production and utilization of crop products during 2001/02: Information was collected from farmers about their pattern of utilization of crop outputs (main and byproducts). Information about total production of different crops and the quantity of these products used for consumption, seed and other uses was collected for the year 2001/02. The unit prices of grain, seed and fodder were also recorded if a part of the production was sold in the market.

Excel spreadsheet name: 9.3.Prod. & utilization

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop	Name of the crop cultivated by the household
4. Crop_output_kg	Total main production (kg) from that crop
5. Crop_consumption	Total quantity (kg) consumed
6. Crop_own_seed	Total quantity (kg) kept for own seed
7. Crop_other_use	Total quantity (kg) used for other uses
8. Crop_sold_seed_kg	Total quantity (kg) sold as seed
9.Crop_seed_price	Seed price (Rs/kg)
10. Crop_sold_grain_kg	Total quantity (kg) sold as grain
11. Crop_grain_price	sale price (Rs/kg)
12. Byprod_own_use_qt	Byproduct (qt) used as fodder for cattle
13. Byprod_sold_qt	Byproduct (qt) sold as fodder
14. Byprod_unit_price	sale price (Rs/qt)

X. Livestock Economics

This module was designed to collect information about maintenance of livestock and small ruminants by the household. Survey personnel recorded income and expenditure to compute returns from livestock rearing in rainy, winter, and summer seasons during 2001/02. All livestock owned by the household was broadly classified as draft animals, cows, she buffalo, young cattle, sheep and goats and poultry. Expenditure on green and dry fodder, concentrates, feeds, labor costs for grazing and veterinary expenses was collected for each category of livestock. Status changes due to births and deaths of animals in each category were recorded. Data on outputs (milk, dung, wool and eggs) and price per unit were collected to compute net returns from livestock enterprises. Income received from hiring out animals and the number of days they were put to work on the household's own farm was also recorded to calculate the cost of maintenance of a pair of bullocks.

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Excel spreadsheet name: 10.Livestock economics

Fields	Description
1. Sur_yr	Year of survey (2001/02)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Season	Rainy, winter or summer season
4. Livestock	Type of livestock owned during the season (draft, milk, sheep, goats, etc)
5. Number	Number of animals own by the household under each category
6. Dry_fod_type1	Type of dry fodder1 (paddy, maize, wheat, millet, sorghum straw)
7. Dry_fod_qty1_qt	Quantity (qt)
8. Dry_fod_price1	Unit price (Rs/qt)
9. Dry_fod_type2	Type of dry fodder 2 (paddy, maize, wheat, millet, sorghum straw)
10. Dry_fod_qty2_qt	Quantity (qt)
11. Dry_fod_price2	Unit price (Rs/qt)
12. Green_fod_type	Type of green fodder (maize, Lucerne, sorghum, Para grass, etc)
13. Green_fod_qty_qt	Quantity (qt)
14. Green_fod_price	Unit price (Rs/qt)
15. Grazing_share	Share of fodder (%) in total requirement received through grazing
16. Grazing_val	Estimated value (Rs) received by the household
17. Concen_grain_type	Type of concentrates or grain fed to livestock
18. Concen_grain_qty_kg	Quantity (kg)
19. Concen_grain_price	Unit price (Rs/kg)
20. Labour_grazing	Estimated cost (Rs) of labor used for grazing
21. Labour_others	Estimated cost (Rs) of labor used for feeding, washing and milking
22. Medicine	Cost (Rs) of medicines given to cattle
23. Transport	Cost (Rs) of transportation if animals moved out
24. Ropes	Cost (Rs) of ropes for tying the animals
25. Death	Number of animals that died
26. Change_val	Estimated value (Rs) of dead animals
27. Birth	Number of animals added by birth
28. Milk_qty_ltr	Total quantity of milk (L) produced during the season
29. Milk_price	Sale price (Rs/L)
30. Dung_qty_qt	Total quantity of dung production (qt) during the season
31. Dung_price	Market price (Rs/qt)
32. Wool_egg_qty	Total quantity of wool/egg production during the season
33. Wool_egg_price	Market price (Rs/kg or Rs/no.)
34. Hire_income	Total income (Rs) received through hiring out animals during season
35. Days_own_work	Total number of days animals were put to work in the field or in the house of the household during the season
36. Animals_sold	Number of animals sold during the season

Plot and Cultivation Schedule (Input-Output Information)

This schedule was designed to record operation-wise input-output data for each plot constituting the operational holding of a farmer. This data was used to compute the costs and returns of different crop enterprises. It was not possible to distinguish between own or hired labor/inputs. Total labor and input use was considered operation-wise. The use of human and bullock labor (days) and machinery (hours) was included in the computation of the operation-wise total cost. Labor use quantity included both family and hired labor for each operation. The prevailing wage rates in the village labor market were considered for computing the cost of family labor. The type and quantity of material inputs (seed, fertilizers, pesticides, weedicides and micronutrients) and their value was recorded in the input column. Input-use quantity included both own and purchased inputs. The prevailing market prices were considered for computing the cost of own inputs (seed, manure, etc). Output (main and byproduct) quantities along with unit price prevailing in the market were recorded to compute the returns from each crop.

The module used to collect input and output data for the survey year 2001/02 was also used for the 2002, 2003 and 2004 cropping years without changing its structure. The codes used for field operations, inputs and units used for human and bullock labor were not changed.

The following codes were used for different field operations in the input-output module from 2001/02 to 2004/05:

1A. Land preparation (plowing, land tillage)

1B. Seedbed preparation (BBF, NBF, Flat)

2. Manure (FYM, compost, sheep penning, tank silt)

3. Planting and sowing

4A. Seed (crop-wise if intercrop/mixed crop)

4B. Seed treatment

5A. Fertilizer application

5B. Micronutrient application

6. Intercultural

7. Weeding and weedicide application

8. Plant protection (spraying, dusting, hand picking, shaking plants, etc)

9. Irrigation

10. Watching

11. Harvesting ((crop-wise if intercrop/mixed crop)

12. Threshing (crop-wise if intercrop/mixed crop)

13. Marketing

14. Fixed costs (land rent and taxes in rupees)

15. Main production (crop-wise if intercrop/mixed crop in kg)

16. Fodder yield in quintals (crop-wise if intercrop/mixed crop)

17. Stalk in quintals.

The following codes we used in the input and output module for the description of information from 2001/02 to 2004/05.

Labor use codes: Labor input included the total number of labor days put in by the family and hired labor for each operation.

M = Male labor; F = Female labor; B = Bullock labor; T=Tractor/Truck;

TH = Thresher; SP = Sprayer; and DU = Duster.

Unit codes: D = Days; HR = Hours; KG = Kilogram; QT = Quintals; LT = Liters: N = Number; and RS = Rupees.

Source of irrigation: Canal, tank, dug well and bore well

Input-output data crop-wise and season-wise are available in a folder (In the form of an Excel spreadsheet) for all VLS villages for 2001/2002.

INPUT-OUTPUT: Aurepalle_IO
Dokur_IO
Kanzara_IO
Kalman_IO
Kinkheda_IO
Shirapur_IO

5. Household Survey Questionnaire for 2002/03 and 2003/04

GT-IMPI of ICRISAT continued the Village Level Studies (VLS) during 2002/03 and 2003/04 in the six selected villages in Andhra Pradesh and Maharashtra states. Twelve modules were used for these annual surveys to collect socioeconomic and agro-biological information (farming, transactions, employment, resource endowments) from the selected households. The same modules that had been used in 2001 were reused for these surveys with minor modifications to one or two of them. A description of the modules used in the questionnaire for the two survey years is given below.

I. General Information

Information about the survey village, the sample household and its family composition was recorded in this module.

1.1. Village information: This part of the schedule noted the name of the village and its location (mandal/block, district and state).

1.2. Household information: T In this schedule, we recorded the general characteristics of each sample household such as the name of the head of household, his/her father/spouse's name, the family's caste, the household identification number assigned in the first-generation VLS (1975), whether or not the household was surveyed during 1975-84 and the new household number allotted for the second-generation survey. Each household was allocated to a farm-size group (labor, small, medium or large farm) on the basis of the size of its operational landholding as recorded 2001/02. This module also tells us whether a family member held a position, either through an election or a nomination by the Government, in any village organization such as the village panchayat (assembly), a watershed committee, a water users' association or an education committee.

Excel spreadsheet name (2002/03): 1.1&2.Gen. info

Fields	Description
1. Sur_yr	Year of the survey (2002/03)
2. Village	Name of the survey village
3. Mandal	Name of the mandal/taluka in which the survey village is located
4. District	Name of the district in which the survey village is located
5. State	Name of the state in which the survey village is located
6. Market_place	Name of the nearest market place
7. Market_dist	Distance (km) from the village
8. Hhid	Household identification (village code, farm-size group and serial number)
9. Head_name	Name of the head of the household selected for survey
10. Son_wife_of	Name of the father or spouse of the head of the household
11. Caste	The caste to which the household belongs

Continued

Fields	Description
12. Farm_size	Farm-size classification (labor, small, medium or large farm)
13. Old_vls_no	Household number assigned in first-generation VLS survey (1975-85)
14. New_vls_no	Household number assigned in second-generation VLS survey 2001/02
15. Elect_nomi_body	Name of the post presently held in an organization
16. Name_body	Name of the organization to which the family member was nominated/elected

<u>Excel spreadsheet name</u> (2003/04): 1.1&2.Gen. info

Fields	Description
1. Sur_yr	Year of the survey (2003/04)
2. Village	Name of the survey village
3. Mandal	Name of the mandal/taluka in which the survey village is located
4. District	Name of the district in which the survey village is located
5. State	Name of the state in which the survey village is located
6. Market_place	Name of the nearest market place
7. Market_dist	Distance (km) from the village
8. Hhid	Household identification (village code, farm-size group and serial number)
9. Farm_size	Farm-size classification (labor, small, medium or large farm)
10. New_vls_no	Household number assigned in second-generation VLS survey 2001/02
11. Old_vls_no	Household number assigned in first-generation VLS survey (1975-85)
12. Head_name	Name of the head of the household
13. Son_wife_of	Name of the father or spouse of the head of household
14. Caste	The caste to which the household belongs
15. Elect_nomi_body	Name of the post presently held in an organization
16. Name_body	Name of the organization to which the family member was nominated/elected

1.3. Family composition: If a family member who was included in the household during 2001/02 but left it due to death, marriage or family division during 2002/03, the changed status was recorded in the relevant column using codes. If a new member joined the household through birth or marriage, it was similarly recorded along with their name, relationship with the head of household, sex, age, years of education, place of education and distance from the village to the educational institution, and their main and subsidiary occupation. The same method was followed for the 2003/04 survey. The following codes were used to record the status of household members.

Status: 1 = Birth; 2 = Entered the family by marriage; 3 = Rejoined the family; 4 = Joined the family due to other reasons; 5 = Death; 6 = Left the family due to marriage; 7 = Left due to family division; and 8 = Left the family due to other reasons.

Excel spreadsheet name: 1.3.Changes-Fam. Comp

(Two Excel files with the same file name for the two years 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the individual member residing in this household
4. Status	Changes in the family due to birth, death or family division (see codes)
5. Rel_with_head	Relationship of individual member with the head of the household
6. Sex	Sex of each member of the family
7. Age	Completed years of age as of July 1 (beginning of the agriculture year)
8. Yrs_education	The year in which the individual member finished his/her education
9. Place_education	Name of the place where the member studied
10. Dist_education	Distance (km) between the village and the place of study
11. Occupation1	Occupation from which the individual member derived the highest proportion of his income or to which he devoted the most time
13. Occupation2	Occupation from which the individual member derived the second highest proportion of his income or to which he devoted the second highest amount of time

II.   Landholding Details

2.1. Changes in the operational holding. Using codes, this schedule recorded any changes in the operational landholding due to sale, purchase, leasing/sharing-in or leasing/sharing-out and loss of a part of the land during the two survey years. If any land transactions had taken place (sale, purchase of gift) during the year, then the price (Rs/acre) of the transaction, the individual with whom the transaction was made and the reasons for the transaction were recorded. The following codes were used.

1 = Purchased; 2 = Received as gift; 3 = Sold; 4 = Gifted out; 5 = Family division; 6 = Taken on lease/share basis; 7 = Owned but leased/shared-out; 8 = Taken back from tenant for own cultivation; and 9 = Given back to land owner.

Excel spreadsheet name: 2.1.Changes-Operational holding

(Two Excel files with the same name for the two years 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name_code	Local name and code given to a plot for identification
4. Area_acre	Area of the plot in acres
5. Status	Changes in the status of the plot (codes)
6. Price_acre	Market price (Rs/acre)
7. Whom	With whom the land transaction was made
8. Reasons	The main reasons for buying/selling the plot

2.2. Landholding. In this module we recorded information about the land (dry, irrigable or permanent fallow) and its status (own, leased/shared-in, leased/shared-out) to compute the operational holding of each selected household during 2002/03 and 2003/04.

Excel spreadsheet name: 2.2.Land holding

(Two Excel files with the same name for the years 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Particulars	Land (owned, leased/shared-in, leased/shred-out or operational)
4. Dry_land	Dry land (acres)
5. Irri_land	Irrigated (acres)
6. Per_fallow_land	Permanent fallow (acres)
7. Total_land	Total land (acres)

III. Cropping Pattern

Information about the crops grown by the selected households were recorded as per the plot/subplot. These details included the name of the plot, ownership of the plot, crops planted and the proportion of area under each crop if the farmer had planted inter- or mixed crops, the variety (local, improved, hybrid), the area sown, value (Rs/acre), season, irrigated area and crop outputs (main and byproducts) and their market price at the time of harvest. The same module was used for the 2003/04 cropping year. The following codes were used in this module.

Land ownership status: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); and Shared-out (SO).

Season codes: K= Kharif; R = Rabi; S = Summer; and P = Perennial.

Excel spreadsheet name (2002/03)**:** 3.1.Crop. Pattern

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name_code	Local name and code given to a plot for identification
4. Ownership_status	Ownership of the plot (codes)
5. Cropping_ pattern	Sole/inter/mixed crop
6. Crop_name	Name of the crop/crop mixtures grown by the household
7. Proportion	Ratio of two crops if intercrop, or proportion of each crop if mixed
8. Variety	Name of the crop variety/varieties
9. Crop_area	Area (acres) under that particular crop/crop mixture
10. Value_acre	Market value (Rs/acre)
11. Season	Name of the season (kharif, rabi, summer) in which the crop was grown
12. Irri_area	Actual area, which received irrigation for that crop

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Fields	Description
13. Main_prod_kg	Main product harvested (kg)
14. Prod_price	Market price at harvest time (Rs/kg)
15. Byprod_qt	Byproduct of harvest (qts)
16. Byprod_price	Market price at harvest time (Rs/qt)

Excel spreadsheet name (<u>2003-04)</u>: 3.1.Crop.pattern

Fields	Description
1. Sur_yr	Year of survey (2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Local name or name with code given to a plot for identification
4. Ownership_status	Ownership of the plot (codes)
5. Plot_area	Total area (acres) of the plot
6. Value_acre	Market value (Rs/acre)
7. Cropping_ pattern	Sole/inter/mixed crop
8. Crop_name	Name of the crop/crop mixtures grown by the household
9. Proportion	Ratio of two crops if intercrop, or proportion of each crop if mixed
10. Variety	Name of the crop variety/varieties
11. Crop_area	Area (acres) under that particular crop/crop mixture
12. Season	Name of the season (kharif, rabi, summer) in which the crop was grown
13. Irri_area	Actual area which received irrigation for that crop
14. Main_prod_kg	Main product harvested (kg)
15. Prod_price	Market price at harvest time (Rs/kg)
16. Byprod_qt	Byproduct harvested (qts)
17. Byprod_price	Market price at harvest time (Rs/qt)

IV. Household Resources

This module was used to record information about the resource position (land, livestock, farm equipment, residential house, consumer durables, etc) of each household and their total value at the beginning of the agriculture year.

4.1. Livestock: Surveyors asked farmers about the number of draft, milch or young cattle and small ruminants (goat, sheep, pigs and poultry, etc) owned by them at the beginning of each agriculture year. They also noted details such as the breed (local, improved or cross-bred) of the livestock, present age in months as of July 1, mode of their acquisition, year of purchase, purchase price, source of finance (own, loan from moneylender/financial institutions, etc) and the present market value of the animals as estimated by the household. The following codes were used to record the mode of acquisition.

Mode of acquisition: 1 = Own farm rearing; 2 = Purchase; and 3 = Gift.

<u>Excel spreadsheet name:</u>   4.1.Resources-Livestock

(Two Excel files with the same name for both years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Particulars	Type of livestock including small ruminants
4. Number	Number of animals owned
5. Breed	Local, improved, Jersey
6. Age	Age (completed months)
7. Acqui_mode	Own-farm rearing, purchase or gift
8. Year_pur	Year of purchase if purchased
9. Pur_price	Price paid (Rs) when purchased
10. Source_finance	Own or borrowed money
11. Present_value	Present market value of animals

4.2. Farm equipment: Farmers were asked to furnish information about the major and minor farm equipment (tractors, threshers, electric motors, sprinklers, power sprayers, drip irrigation, cane crushers, rice and flour mills, bullock-carts and wooden or iron farm implements) owned by them and their total value as of July 1 of both survey years. The other information recorded in this module included the horsepower of power-operated machinery, year of purchase of such machinery, the purchase price, source of finance (own, loan from moneylender/financial institutions, etc) and the present market value as estimated by the household. Information about the irrigation sources owned by the household was also recorded in this module.

Excel spreadsheet name: 4.2.Resource-Farm equip

(Two Excel files with same names for the two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Item	Type of farm equipment
4. Number	Number of items of equipment owned
5. Hp	Horsepower for major farm machinery (tractors, pumps, etc)
6. Year_pur	Year of purchase if purchased
7. Pur_price	Amount paid (Rs) when purchased
8. Source_finance	Own or borrowed money
9. Present_value	Present market value (Rs)

4.3. Farm Buildings: This module was used to collect information about the type of residential building used by the household, its present market value and the facilities (the type of house, toilets, bathroom, electricity, tap water connection, etc) available in it. Details of the other assets owned by the household such as residential plots, farmhouses and consumer durables (two-wheeled vehicles, gold and silver, furniture, fan, radio, etc) and their total value were also recorded. The same module was used for the 2003/04 survey. The following codes were used.

1= Strong walls and RCC roof; 2 = Strong walls and other type of roof; 3 = Mud walls with thatched roof; 4 = Mud walls with other type of roof; and 5 = Others (specify).

<u>Excel spreadsheet name:</u>   4.3.Resource-Farm building

(Two Excel files with the same file name for 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Item	Type of house, farmhouse, plots and consumer durables
Sub_item	Durables (two-wheeled vehicle, gold, furniture, utensils, fan, radio)
Facilities	Facilities such as toilet, bathroom, electricity, tap water, gas, etc
Value	Present market value (Rs)

4.4. Production and utilization. Information was elicited from farmers about the pattern of their utilization of crop outputs (main and byproducts) and livestock production (milk, milk products and dung). Surveyors noted details of different crops and livestock outputs and utilization of these products (consumption, own seed and other uses) for the years 2002/03 and 2003/04. The unit prices of grain, seed and fodder were also recorded if a part of the production was sold in the market. The following codes were used.

1 = Village shop; 2 = Primary market; 3 = Secondary market; 4 = Regulated market; and 5 = Others (specify).

<u>Excel spreadsheet name:</u>   4.4.Prod. & util. (Crop & Livestock)

(Two Excel files with the same name for the two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop	Name of the crop cultivated by the household
4. Crop_output_kg	Total main production from that crop (kg)
5. Crop_consumption	Total quantity consumed (kg)
6. Crop_own_seed	Total quantity kept for own seed (kg)
7. Crop_other_use	Total quantity used for other uses (kg)
8. Crop_sold_kg	Total quantity sold (kg)
9. Crop_unit_price	Sale price (Rs/kg)
10. Crop_sold_place	Place where the crop output was sold
11. Crop_sold_dist	Distance between market and house (km)
12. Crop_sold_whom	To whom crop output was sold (codes)
13. Byprod_own_use_qt	Byproduct used as fodder for cattle (qt)
14. Byprod_sold_qtl	Byproduct sold as fodder (qt)
15. Byprod_unit_price	sale price (Rs/qt)

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Fields	Description
16. Lst_product	Types of livestock products (milk, butter, dung, etc)
17. Lst_output	Total production of each product (lt/kg/qt)
18. Lst_consumption	Total quantity consumed
19. Lst_own_use	Total quantity kept for own use
20. Lst_other_use	Total quantity used for other uses
21. Lst_prod_sold	Total quantity sold (kg/lt/qt)
22. Lst_unit_price	Sale price (Rs/unit)
23. Lst_sold_place	Place where the livestock output was sold
24. Lst_sold_dist	Distance between market and house (km)
25. Lst_sold_whom	To whom livestock output was sold (codes)

4.5. Financial assets and liabilities. Our questionnaire captured information about the financial assets and liabilities of each household at the beginning of the agriculture year in 2002/03 and 2003/04. It also noted the details of borrowings by households from different sources (banks, cooperative financial institutions, moneylenders, friends and relatives), the amount borrowed, the purpose and the rate of interest per year. Similarly, we collected information about each household's lending to others and savings held in banks, insurance policies, cooperative institutions, self-help groups, the post office and chit funds.

<u>Excel spreadsheet name (2002/03)</u>: 4.5.Finan. assets & liabilities

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Bor_source	Sources of borrowing (banks, money lender, cooperative institutions, friends, relatives, etc)
4. Len_source	Lending to whom (villagers, friends, relatives. etc.)
5. Sav_source	Savings in banks, cooperative institutions, post office, insurance policies, self-help groups, etc
6. Bor_amount	Amount borrowed (Rs)
7. Bor_purpose	Purpose of borrowing (farm inputs, marriage, education, investment, etc)
8. Bor_int_rate	Rate of interest (%) on borrowed money
9. Bor_outstanding	Outstanding amount (Rs) as of July 1, 2002
10. Len_amount	Amount (Rs) given as loans
11. Len_purpose	Purpose of lending (farm inputs, marriage, education, investment, etc)
12. Len_int_rate	Rate of interest (%) charged for loans
13. Len_outstanding	Outstanding amount (Rs) as of July 1, 2002
14. Sav_amount	Amount saved (Rs)
15. Sav_purpose	Purpose of saving
16. Sav_int_rate	Rate of interest on savings (%)
17. Sav_outstanding	Outstanding amount (Rs) as of July 1, 2002

Excel spreadsheet name (2003/04)**:** 4.5.Finan. assets & liabilities

Fields	Description
1. Sur_yr	Year of survey (2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Bor_source	Sources of borrowing (banks, money lender, cooperative institutions, friends, relatives, etc)
4. Bor_amount	Amount borrowed (Rs)
5. Bor_purpose	Purpose of borrowing (farm inputs, marriage, education, investment, etc.)
6. Bor_int_rate	Rate of interest on borrowed money (%)
7. Bor_outstanding	Outstanding amount (Rs) as of July 1, 2002
8. Len_source	Lending to whom (villagers, friends, relatives, etc)
9. Len_amount	Amount given as loan (Rs)
10. Len_purpose	Purpose of lending (farm inputs, marriage, education, investment, etc)
11. Len_int_rate	Rate of interest on lending (%)
12. Len_outstanding	Outstanding amount (Rs) as of July 1, 2002
13. Sav_source	Savings in banks, cooperative institutions, post office, insurance policies, SHGs, etc
14. Sav_amount	Amount saved (Rs)
15. Sav_purpose	Purpose of saving
16. Sav_int_rate	Rate of interest on savings (%)
17. Sav_outstanding	Outstanding amount (Rs) as of July 1, 2002

4.6. Household consumption expenditure: We wanted to compute the average consumption expenditure (on food and nonfood items) and nonrecurring expenses of the sample households during 2002/03. In this module we recorded their expenditure on major food items such as cereals, pulses, oils, vegetables, meat, milk and milk products, fruits and other food items. Expenditure incurred on nonfood items such as education, medical needs, clothing, travel, ceremonies, including dowry, payment for services and others was recorded monthly and annually. Total nonrecurring expenditure was similarly recorded.

Excel spreadsheet name (2002/03)**:** 4.6.Annual expenses

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Item_fd	Type of food (cereals, pulses, oils, vegetables, milk, fruits, etc)
4. Item_nf	Type of nonfood item of expenditure (education, medical, clothing, travel, dowry, etc)
5. Item_nr	Type of nonrecurring expenses
6. Monthly_amount_fd	Average amount spent on that food item for month
7. Monthly_amount_nf	Average amount spent on nonfood item for month
8. Monthly_amount_nr	Average amount spent on nonrecurring items for month
9. Yearly_amount_fd	Average amount spent for that food item during the year
10. Yearly_amount_nf	Average amount spent on nonfood item during the year
11. Yearly_amount_nr	Average amount spent on nonrecurring items during the year

For the survey year 2003/04, the module on household expenses on food and nonfood items was slightly modified. Food and non-food items were further divided and we collected detailed information on the quantity of each item required by the household for the month/year and the average market price of that item. For example, the broad category of cereals was further divided into sorghum, millet, maize, wheat and rice and we recorded how much quantity of each item was required by the household as well as its unit price. Each item under the broad categories of food and nonfood items was further classified and for each item how much quantity was required for the household and unit price were recorded.

Excel spreadsheet name (2003/04): 4.6.Annual expenses

Fields	Description
1. Sur_yr	Year of survey (2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Cereal_name	Name of the cereal (rice, wheat, millet, sorghum, maize, etc)
4. Pulses_name	Name of the pulse item (pigeonpea, chickpea, green/blackgram, etc)
5. Otherfood_name	Name of other food items (milk, tea/coffee, meat, vegetables, etc)
6. Nonfood_name	Nonfood items (wine, clothing, medical, education, cosmetics, etc)
7. Cereal_qty	Cereals quantity required/consumed (kg)
8. Cereal_d_m_y	Requirement (day/month/year)
9. Cereal_unit_pr	Average unit price (Rs/unit)
10. Cereal_tot_pr	Total cost of cereal (Rs)
11. Pulses_qty	Pulses quantity required/consumed (kg)
12. Pulses_d_m_y	Requirement (day/month/year)
13. Pulses_unit_pr	Average unit price (Rs/unit)
14. Pulses_tot_pr	Total cost of pulses (Rs)
15. Otherfood_qty	Other food quantity required/consumed (kg)
16. Otherfood_d_m_y	Requirement (day/month/year)
17. Otherfood_unit_pr	Average unit price (Rs/unit)
18. Otherfood_tot_pr	Total cost of other food items (Rs)
19. Nonfood_d_m_y	Nonfood requirement (day/month/year)
20. Nonfood_tot_pr	Total cost of nonfood item (Rs)

V. Major Sources of Income.

To compute the net household income during the year, each household was asked to estimate its gross income from different sources and the expenditure it incurred during the year. This module computed details of the households net annual income from different sources such as agriculture, labor earnings from farm and non-farm work, livestock, caste and other occupations, salaried jobs, business, handicrafts, migration, remittances, etc.

Excel spreadsheet name (2002-03): 5.Major sou. of income

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Sources	Type of major sources of income for the household
4. Gross_inc	Gross income from that particular income source
5. Expenditure	Expenditure incurred (wages, rent, others)
6. Net_inc	Net income from each source (gross income – expenditure)

In 2003/04, only the net income from different sources was recorded directly from the household's responses without recording the gross income and expenditure from each source.

Excel spreadsheet name (2003/04): 5.Major sou. of income

Fields	Description
1. Sur_yr	Year of survey (2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Sources	Type of major sources of income for the household
4. Net_inc	Net income from each source

VI. Impact of Development/Welfare Programs

The Union and State Governments of India have a number of development and poverty alleviation programs for the rural poor. Local authorities are implementing such programs with the support of the Andhra Pradesh Government in all the VLS villages in the state. This module was designed to capture about 40 ongoing programs [land distribution, subsidy on housing schemes, family planning, self-employment, watershed development, public distribution system (PDS), drought relief, crop insurance, support for bonded and child laborers, subsidies given for livestock, digging wells and bore wells, liquefied petroleum gas (LPG) gas connections, agricultural inputs and machinery, etc]. The households were asked to recall the programs that they had received benefits from during 2002/03 and the approximate amount of the benefit.

Excel spreadsheet name: 6.Impact of dev. Prog.

(Two Excel files with the same name for two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002-03 and 2003-04)
2. Hhid	Household identification (village code, farm size group and serial number)
3. Program	Name of welfare program
4. Status	Benefited from this program (yes/no) during the year
5. Approx_amt	Total amount approximately benefited from the welfare program

VII. Livestock Economics

The respondents were asked to furnish details of the expenditure and returns from livestock activities in the rainy, winter and summer seasons, with each season covering four months. Expenditure on green and dry fodder, grazing costs, concentrates and feeds, labor and veterinary expenses for each category of livestock (draft animals, cows, she buffaloes, young cattle, sheep and goats, poultry and others) were collected separately as per each season. Changes of status due to births and deaths were recorded for each category of livestock. Details of the outputs (milk, dung, wool and eggs) and price/unit were collected to compute the net returns from each livestock enterprise. Income received from hiring out animals and the number of days draft animals were put to work on the household's own farm was also recorded.

Excel spreadsheet name: 7.Livestock economics

(Two Excel files with the same name for the two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Season	Rainy, winter and summer seasons
4. Livestock	Type of livestock owned during the season (draft, milk, sheep, goat, etc)
5. Number	Number of animals owned by the household under each category
6. Dry_fod_type1	Type of dry fodder1 (paddy, maize, wheat, millet, sorghum straw)
7. Dry_fod_qty1_qt	Quantity (qt)
8. Dry_fod_price1	Unit price (Rs/qt)
9. Dry_fod_type2	Type of dry fodder 2 (paddy, maize, wheat, millet, sorghum straw)
10. Dry_fod_qty2_qt	Quantity (qt)
11. Dry_fod_price2	Unit price (Rs/qt)
12. Green_fod_type	Type of green fodder (maize, Lucerne, sorghum, para grass, etc)
13. Green_fod_qty_qt	Quantity (qt)
14. Green_fod_price	Unit price (Rs/qt)
15. Grazing_share	Share of fodder (%) received through grazing
16. Grazing_val	Value (Rs) estimated by the household
17. Concen_grain_type	Type of concentrates or grain fed to livestock
18. Concen_grain_qty_kg	Quantity (kg)
19. Concen_grain_price	Unit price (Rs/kg)
20. Labour_grazing	Estimated cost (Rs) of labor used for grazing
21. Labour_others	Estimated cost (Rs) of labor used for feeding, washing and milking
22. Medicine	Cost of medicines given to cattle (Rs)
23. Transport	Cost of transportation if animals moved out (Rs)
24. Ropes	Amount spent on buying ropes and other items
25. Death	Number of animals that died
26. Change_val	Estimated value (Rs) of dead animals

Continued

Fields	Description
27. Birth	Number of animals added by birth
28. Milk_qty_ltr	Total quantity of milk (L) produced during the season
29. Milk_price	Sale price (Rs/L)
30. Dung_qty_qt	Total quantity of dung production (qt) during the season
31. Dung_price	Market price (Rs/qt)
32. Wool_egg_qty	Total quantity of wool/egg production during season
33. Wool_egg_price	Market price (Rs/kg or Rs/no.)
34. Hire_income	Total income received (Rs) through hiring out animals during season
35. Days_own_work	Total number of days during the season they were worked in the field or house of the household
36. Animals_sold	Number of animals sold during the season
37. Selling-amount	Amount (Rs) received by selling animals
38. Manure	Percentage of dung used as manure
39. Firewood	Percentage of dung used as firewood (as dung cakes)
40. Courtyard_maint	Percentage of dung used for courtyard cleaning
41. Others	Percentage of dung used for other purposes

VIII. Socioeconomic and Agro-biological and Institutional Aspects

In this module we recorded the perceptions of farmers on changes in climatic conditions, the rainfall pattern, the number of attempts made by them to dig wells and bore wells, the situation of the labor market and the existing wage rates in the village. Information regarding the participation of family members in the village labor market, out-migration, caste and other occupations was also collected.

8.1. Rainfall: Surveyors asked each individual household' whether the rainfall had been good, normal, bad or very bad.

8.2. Rainfall pattern: The household's observations on the quantum and distribution of rainfall, the number of rainy days, outlayer events, arrival of the monsoons (whether on time, late or early), availability of water, temperature chnges (increased/decreased/remained the same) were recorded in this module.

Excel spreadsheet name: 8.1&2.Climate & rainfall

(Two Excel files with the same name for the two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Climate_cond	Farmer's opinion on climatic conditions (rainfall) during the year
4. Characteristics	Characteristics (quantum, distribution, rainy days, temperature. etc)
5. Observation	Observations (erratic, high, low, late, decline) of the household

8.3. Digging open wells or bore wells: Farmers were asked about the investments made by them to explore ground water during 2002/03. Surveyors recorded the number of attempts made by the household to dig wells, bore wells or in-well bores and deepen existing wells, etc, and the depth (feet) of each attempt, the number of successful attempts and the total amount spent (Rs) on each attempt.

Excel spreadsheet name: 8.3.Changes-Wells

(Two Excel files with the same name for the two years, 2002/03 and 2003/04)

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_wells	Whether the household tried to dig wells, bores, and in-well bores (Yes/no)
4. Well_type	Type of irrigation sources (wells, bores, in-well bores and deepening)
5. No_attempts	Number of attempts to dig (wells, bore wells, in-well bores, etc)
6. Depth	Average depth of each attempt (feet)
7. Succ_attempts	Number of successful attempts
8. Presently_use	Number of water resources (wells and bore wells) presently in use
9. Amt_spent	Total amount spent including failed attempts (Rs)

8.4. Status of the labor market: The questionnaire sought to elicit information from the respondents about the status of the village labor market and the opportunities available to them for farm and non-farm work. Our purpose was to assess whether employment opportunities had increased, decreased or remained static. This information was not collected during the 2003/04 survey.

Excel spreadsheet name (2002-03)**:** 8.4.Changes-Lab. market

Fields	Description
1. Sur_yr	Year of survey (2002-03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Characteristics	Opportunities for farm and non-farm work in the village at present
4. Observation	Household observations (increased/decreased/no change)

8.5. Wage rates for human labor, bullocks and machinery: The existing wage rates for human labor and the rental rates for bullocks and tractors (with operator) were recorded by the 2002/03 and 2003/04 surveys. In particular, we collected data on the wage rate per hour/day/month/year for farm and non-farm work and for regular farm servants (RFS) along with information on the average number of working hours/days for different types of work for human and bullock labor. Similar information was collected for the 2003/04 cropping year too. However, all fields were similar to the module used in 2002/03, the table number was different.

Excel spreadsheet name (2002/03)**:** 8.5.Wage rates

Excel spreadsheet name (2003/04): 8.4.Wage rates

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Type_work	Type of work (farm, non-farm, RFS)
4. Unit_d_m_y	Unit (day, month or year)
5. Avg_work_hrs	Average working hours/day
6. Male	Existing wage rate for male labor in the village (Rs/day)
7. Female	Existing wage rate for female labor in the village (Rs/day)
8. Bullocks	Existing wage rate for bullocks with operator in the village (Rs/day)
9. Tractor	Existing rent for tractor in the village (Rs/hour or Rs/acre)

8.6. Participation in the village labor market: Individual members of the sample households furnished information about their participation in daily wage employment for farm and non-farm work and as regular farm servants during the two cropping years. Data was also collected on the total number of employment days, the wage rate, the total earnings, the number of involuntary unemployment days and the amount received as advance, if any, by each individual of the household. Similar information was collected for the 2003/04 cropping year. However, while all fields were similar, the table number was different for 2003/04.

Excel spreadsheet name (2002/03): 8.6.Mem. in lab. market

Excel spreadsheet name (2003/04): 8.5.Mem. in lab. market

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in the village labor market
4. Sex	Gender (Male/Female)
5. Status	Daily-wage, monthly salaried jobs, etc
6. Work_type	Farm work or non-farm work
7. Emp_days	Number of employment days worked by the member
8. Wage_rate	Average wage rate (Rs/day)
9. Tot_earning	Total wages received during the year (Rs)
10. Invl_unemp_days	Number of involuntary unemployment days during the year
11. Adv_rec	Advance payment received if any (Rs)

8.7. Temporary out-migration: To understand the role of migration in the village economy, we sought information from the respondents on individual members of the household who had temporarily migrated during 2002/03/ We recorded the distance travelled for daily wage employment (farm and non-farm work and part/full-time monthly salaried jobs) and the noted the gender of each such individual member, the place of work, its distance from the village, the type of work, the number of employment days/months, the wage rate, total earnings, the amount spent during his/her stay at the work place, involuntary unemployment days, if any, and the amount received as advance by them. Similar information was collected for the 2003/04 cropping year too. However, while all fields were similar to 2002/03, the table number was different.

Excel spreadsheet name (2002/03): 8.7.Mem-Migrated

Excel spreadsheet name (2003/04): 8.6.Mem-Migrated

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who migrated temporarily
4. Sex	Gender (Male/Female)
5. Place_migr	Name of the place to which he/she migrated
6. Distance	Distance from the village (km)
7. Work_type	Type of work (farm, non-farm, etc) performed by the migrant
8. Emp_days_mon	Number of days the member got employment
9. Wage_rate	Average wage rate (Rs/day)
10. Tot_earning	Total wages received during the year (Rs)
11. Amt_spent	Total amount spent at work place during the year (Rs)
12. Invl_unemp_days	Number of days of involuntary unemployment
13. Adv_rec	Advance payment received if any (Rs)

8.8. Participation in caste occupations: As part of our effort to understand the occupational patters of our sample, the questionnaire recorded information about household members who participated in their caste occupations (such as toddy-tapping and selling, carpentry, goldsmithy, masonry, laundering, barber, butchery, pottery, basket-making, weaving, cobbler and religious services) during 2002/03. The respondents furnished information about their sex, type of occupation, number of days worked during the year, average number of working hours/day and the total earnings received by each individual of the household. Similar information was collected for the 2003/04 cropping year too but while all fields were similar to 2002/03, the table number was different.

Excel spreadsheet name (2002/03): 8.8.Mem. in caste occ.

Excel spreadsheet name (2003/04): 8.7.Mem. in caste occ

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in his caste occupation
4. Sex	Gender (Male/Female)
5. Occu_type	Type of caste occupation (goldsmithy, washerman, carpenter)
6. Days_worked	Number of days the member worked in that occupation during the year
7. Working_hrs	Average number of working hours/day
8. Inc_rec	Approximate total income (Rs) received during the year

8.9. Participation in other occupations: Survey personnel noted details of household members who had participated in occupations other than caste vocations (tailoring, shop-keeping, vehicle repairs, selling vegetables and fruits, running own autorickshaws, conducting finance operations,

leaf-plate making, mat-weaving and selling and other such part/full-time jobs) in 2002/03. They also gathered data on their sex, type of occupation, number of days of work during the year, average number of working hours/day and the total earnings of each individual. Similar information was collected for the 2003/04 cropping year. However, while all fields were similar to 2002/03, the table number was different.

Excel spreadsheet name (2002/03): 8.9.Mem. in other occ.

Excel spreadsheet name (2003/04): 8.8.Mem. in other occ

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in noncaste occupation
4. Sex	Gender (Male/Female)
5. Occu_type	Type of noncaste occupation (shop, autorickshaw, money lender, mat and leaf-plate making, etc)
6. Days_worked	Number of days the member worked during the year
7. Working_hrs	Average working hours/day
8. Inc_rec	Approximate total income received (Rs) during the year

IX. Coping Mechanisms

Crop failures have become more common in recent years due to drought and uneven distribution of rainfall at critical stages of crop growth. Severe pest and disease problems have played a part too, adversely affecting household income. Households, particularly those belonging to the labor group, have been affected due to the paucity of employment opportunities as a consequence of crop failures. Farmers and laborers adopt strategies to cope with falling income. Each family sampled in this survey was asked whether it had adopted any such coping mechanisms during 2002/03. If the answer was yes, then all the coping mechanisms adopted were listed in order of importance. Similar information was collected for the 2003/04 cropping year. While all fields were similar to the module used for 2002/03, the table number was different.

Excel spreadsheet name (2002/03): 9. Coping mech.

Excel spreadsheet name (2003/04): 8.9.Coping mech

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop_fail_y_n	Coping mechanisms adopted due to crop failure (yes/no)
4. Cop_mech	Type of coping mechanisms adopted
5. Rank	Rank given by the household to each coping mechanism

X. Others

This module was designed to collect general information about crops and production constraints faced by households in rain fed farming during 2002/03 and 2003/04. Farmers depend on several sources of information besides their own experience when they adopt new technologies in their fields. Data was collected about the farmers' sources of information for improved seed, chemical fertilizer and pesticides, adoption of crop rotation, soil and water conservation and herbicide application. Farmers were also asked to rank these sources (progressive farmers, extension personnel, shop-keepers, Krishi Vigyan Kendras and relatives).

10.1. Major production constraints: Information was elicited from farmers about crop wise production constraints in dry land agriculture. The major production constraints to rain fed crops (sorghum, millet, maize, groundnut, pigeonpea, castor, cotton, sunflower and safflower) are drought, pests and diseases, weeds, poor soil, too much rain, poor quality seed, etc. Each household was asked to rank the major production constraints for each crop grown by them based on their experience. Similar information was collected for the 2003/04 cropping year. All fields were similar to 2002/03. But the table number was different.

Excel spreadsheet name (2002/03): 10.1.Major prod. const-dry land

Excel spreadsheet name (2003/04): 9.1.Major prod. const-dry land

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop	Name of crops grown by the household in its dryland field
4. Drought	Ranked by the household if drought is a constraint to the crop
5. Pest	Ranked by the household if pests are a constraint to the crop
6. Disease	Ranked by the household if diseases are a constraint to the crop
7. Weed	Ranked by the household if weeds are a constraint to the crop
8. Poor_soil	Ranked by the household if poor soil is a constraint to the crop
9. Excess_rain	Ranked by the household if excess rain is a constraint to the crop
10. Poor_seed	Ranked by the household if poor seed is a constraint for the crop
11. Others	Ranked by the household if other factors are a constraint to the crop

10.2. Sources of information: This part of the module provides data about the sources of information for technologies adopted by the households such as improved seed, fertilizer, pesticides and adoption of crop rotation, soil conservation practices and pest control measures such as the appropriate time of application, type of pesticide, quantity and mixing of chemicals, etc. Households were asked to rank these sources (progressive farmers, extension personnel, shopkeepers, Krishi Vigyan Kendras, relatives, friends, TV, radio, newspapers, etc. Similar information was collected for the 2003/04 cropping year. All fields were similar to 2002/03. But the table number was different.

Excel spreadsheet name (2002-/03): 10.2.Source of info-Dry land agri

Fields	Description
1. Sur_yr	Year of survey (2002/03 or 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Decision	Type of information/technologies adopted for dry land agriculture
4. Prog_farmers	Rank given if progressive farmers are a source of information
5. Extension	Rank given if extension personnel are a source of information
6. Shopkeeper	Rank given if shopkeepers are a source of information
7. KVk	Rank given if Krishi Vigyan Kendras are a source of information
8. Rel_friends	Rank given if relatives and friends are a source of information
9. Tv_media	Rank given if media are a source of information
10. Others	Rank given if others are a source of information

XI. Water and Soil Conservation Measures

11.1. Plot characteristics and soil conservation practices: While recording information about the characteristics of individual plots owned by households during 2002/03, survey personnel noted data such as the local name of the plot, distance from the household's home, total area, irrigable area irrigation source, number of trees and market value (Rs/acre) of each plot as estimated by the household. Details of land tenure, soil type, depth of soil and fertility, slope, soil degradation were also recorded by using specific codes. Such information was not collected for the 2003/04 cropping year but the benefits perceived by farmers from adopting SWC measures were. The following codes were used in this module.

Land tenure: 1 = Owned; 2 = Leased out; 3 = Shared out; 4 = Leased-in; and 5 = Shared-in.

Soil type: 1 = Red soil; 2 = Sandy soil; 3 = Murram soil; 4 = Deep black; 5 = Medium black; 6 = Shallow soil; 7 = Sandy loam; 8 = Saline; and 9 = Alkaline.

Soil depth: 1 = Shallow (<0.5 m); 2 = Medium (0.6-1 m); 3 = Deep (1.1-1.5 m); and 4 = Very deep (>1.5 m).

Soil fertility: 1 = Very poor; 2 = Poor; 3 = Good; and 4 = Very good.

Slope: 1 = Level (0-1%); 2 = Slight slope (1-3%); 3 = Medium slope (3-10%); and 4 = High slope (>10%).

Soil degradation: 1 = No problem; 2 = Soil erosion; 3 = Nutrient depletion; 4 = Waterlogging; 5 = Salinity/alkalinity/acidity; and 6 = Others.

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Local name given to a plot for identification by the household
4. Serial_No	Serial number allocated to a particular plot

Continued

Fields	Description
5. Dist_home_km	Distance between home and plot (km)
6. Dist_irri_source	Distance between the plot and nearest water source (km)
7. Plot_area	Total area of the plot (acres)
8. Irri_area	Area that under normal circumstance could receive irrigation
9. Irri_source	Source of irrigation (tank, well, canal, etc)
10. Land_tenure	Ownership of the plot (codes)
11. Soil_type	Description of the major soil types of the plot (codes)
12. Soil_depth	Depth of the soil (cm) that is useful for crop growth
13. Soil_fertility	Household's opinion about fertility of the plot (codes)
13. Slope	Slope of the plot based on its geographical location (codes)
14. Soil_degr	Loss of soil due to runoff (codes)
15. No_trees	Number of trees of value located in this plot
16. Value_acre	Market value (Rs/acre)

11.2. Benefits perceived by farmers from soil conservation practices: The survey asked farmers to list the benefits plot-wise they had received from soil and water conservation practices. If a household had adopted any soil conservation measure in his/her plot, we recorded the year of adoption, the total cost, the farmer's share in that cost, the maintenance cost per year, the number of years of expected benefits from these measures, the soil fertility benefits perceived (positive and negative effects in terms of percentage) by the farmer, control of soil erosion increased land productivity and the main reasons responsible for such effects. The farmers were also asked what type of mitigation measures they had taken to increase productivity such as use of more FYM and chemical fertilizer, seasonal fallow and shift to new crops.

The following codes are used in denote different soil conservation measures, perceived benefits and mitigation measures.

Soil conservation measures: 0 = Did not adopt any measure; 1 = Land leveling; 2 = Field/ boundary bunds; 3 = Contour bunds; 4 = Broad bed and Furrow; 5 = Tree/grass plantation; 6 = Check dams; 7 = Water harvesting structures (farm pond, etc), and 8 = Others (specify).

The field personnel were instructed to write zero if soil conservation structures were constructed by the government free of cost.

If farmer perceived any yield benefits: 1 = Increased by 10%; 2 = Increased by 11-25%; 3 = Increased by 26-50%; 4 = Increased by 51-75%; and 5 = Increased by more than 75%.

If farmer did not perceive any yield benefits: 6 = No change;7 = Fallen by 10%; 8 = Fallen by 11-25%; 9 = Fallen by 26-50%; 10 = Fallen by 51-75%; and 11 = Fallen by more than 75%.

Mitigation measures: 1 = Increased FYM (Farm Yard manure) use; 2 = Increased use of chemical   fertilizer; 3 = Seasonal fallow; 4 = Soil and water conservation measures; 5 = Shift to new crops; and 6 = Others (specify).

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_no	Serial number allocated to a particular plot
4. Swc_type	Type of soil conservation measure adopted (codes)
5. Total_cost	Total cost (Rs) of adoption of soil conservation measure
6. Farmer_share	Share of the household (%) in the total cost of soil conservation measure
7. Maint_cost	Maintenance cost of structure (Rs) per year
8. Yrs_benefit_expe	Number of years the household expected benefits from this measure
9. Benefit_fertility	Benefits perceived/not perceived in improving soil fertility (codes)
10. Benefit_erosion	Benefits perceived/not perceived in controlling soil erosion (codes)
11. Benefit_productivity	Benefits perceived/not perceived in improving productivity (codes)
12. Benefit_others	Benefits perceived/not perceived in terms of other benefits, if any (codes)
13. Benefit_reasons1	Main reason given by the household for this benefit
14. Benefit_reasons2	Secondary reason given by the household for this benefit
15. Mitigation_measures	Mitigation measures used to arrest soil fertility decline (codes)

Similar information was collected for the 2003/04 cropping year with minor modifications in the survey instrument. While all fields were similar to 2002/03, the table number was different.

Excel spreadsheet name (2003/04): 9.3.Benefits soil cons

Fields	Description
1. Sur_yr	Year of survey (2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Name of the plot/number allocated to a particular plot
4. Swc_type	Type of soil conservation measure adopted (codes)
5. Total_cost	Total cost (Rs) spent on adoption of soil conservation measure
6. Farmer_share	Share of the household (%) in the total cost of soil conservation measure
7. Benefit_rec	Expected benefits from this measure (codes)
8. Approx_amt	Expected benefits in terms of money (Rs) from this measure

11.3. Crop insurance: In this module, farmers were asked whether their crops were covered under the crop insurance program during 2002/03. If answer was yes, they were asked which crops these were, the area under these crops, the amount borrowed from financial institutions to buy inputs, the premium paid, the extent of insurance coverage and the indemnity received by the household. Similar information was collected for the 2003/04 cropping year. All fields were similar to 2002/03. But the table number was different.

Excel spreadsheet name (2002/03): 11.3. Crop insurance prog

Fields	Description
1. Sur_yr	Year of survey (2002/03 and 2003/04)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Ans	Whether crops were covered by crop insurance (yes/no)
4. Crops	If yes, name of the crop
5. Area_acres	Area under that crop (acres)
6. Loan_taken	Loan taken from institution to cultivate that crop
7. Premium_paid	Premium paid (Rs)
8. Amt_cov	Amount covered under crop insurance
9. Indemnity	Any benefit including money received under crop insurance

11.4. Drought relief measure: More than 90% of the respondents perceived that rainfall has been becoming more erratic, and that the onset of monsoons has been getting delayed in drought-prone villages. The State Governments had declared some mandals/blocks as drought-affected areas in 2002. Farmers were asked whether their crops had received any Government help. If the answer was yes, they were asked to specify which crops were covered by the drought relief program, the area under these crops, the form of Government support and the amount benefited from this program. This information was not collected for the 2003/04 cropping year. The following codes were used to denote the form of Government support received by the household.

1 = Land revenue remission; 2 = Support for purchase of seed for the next crop season; 3 = Rescheduling of loans; 4 = Cash compensation; and 5 = Interest waiver.

Excel spreadsheet name (2002/03): 11.4.Govt. help-Drought relief

Fields	Description
1. Sur_yr	Year of survey (2002/03)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Ans	Whether the household's crops were covered by the drought relief program (yes/no)
4. Crops	If yes, name of the crop
5. Area_acres	Area under that crop (acres)
6. Support_type	Support received (codes)
7. Amt_benefited	Amount (Rs) received under drought relief measures

Plot and Cultivation Schedule (Input-Output Information)

The same survey module that was used in the 2001/02 cropping year was reused for crops grown by the household during 2002/03 and 2003/04. This was designed to record operation-wise input-output data for each plot to compute the costs and returns of different crop enterprises. Total labor and input use was considered operation-wise. This schedule recorded information about the quantity of human and bullock labor (days) and machinery (hours) to compute the operation-wise total cost. However, since it was not possible to distinguish between own or hired labor/inputs, the labor use quantity included both family and hired labor for each operation. The wage rates prevailing in the village labor market were considered for computing the cost of family labor. As for

inputs, we recorded the type and quantity of material inputs (seed, fertilizers, pesticides, weedicide and micronutrients) and their value. Input use quantity included both own and purchased inputs to compute the costs of which we considered the prevailing market prices. We also recorded the output (main and byproduct) quantities along with the unit price prevailing in the market to compute the returns from each crop. The crop- and season-wise input-output data are available in a folder (in the form of Excel spreadsheets) for all villages for 2002/2003 and 2003.04 separately with the same file names.

INPUT-OUTPUT: Aurepalle_IO
                      Dokur_ IO
                      Kanzara_ IO
                      Kalman_ IO
                      Kinkheda_ IO
                      Shirapur_ IO

6. Household Survey Questionnaire for 2004/05 (Part-1)

For 2004/05, ICRISAT's GT-IMPI decided to conduct a biannual survey with the same set of households and using the same survey instruments. The first survey was conducted after the rainy (kharif) season in Dec-Jan and the second after the postrainy (rabi) season in June 2005. The same survey instruments were used barring some minor modifications.

The survey instruments used for the biannual survey were divided into two parts. The first part, called the General Endowment Schedule (GES), consisted of eight modules to collect information on the assets and endowments of the sample households, including land, livestock, farm implements, irrigation equipment, farm buildings, consumer durables, debt and credit information, benefits from soil conservation practices and benefits received from Government welfare programs. This information was collected only once, during Dec 2004-Jan 2005.

The second part of the survey instrument consisted of nine modules to collect information on household participation in the village labor market, caste occupations and self-employment and out-migration. Details of the cropping pattern, utilization of family labor, bullock utilization and its economics, production constraints, sources of information, production and utilization of crop and livestock products, sources of income and consumption expenditure were also collected. Input-output data for each crop or crop mixture was gathered on a subplot basis in the input-output module. These modules were used twice, once in Jan 2005 to cover the rainy season and the second time in June 2005 to cover the postrainy season.

A description of these schedules is given below.

Note: The Excel spreadsheet file names relating to the two biannual surveys for 2004/05 were given the same name. (To differentiate them, the survey year column shows the Kharif season as 2004K and the Rabi season as 2004R.)

I. General Endowments

Data relating to the general characteristics of the selected villages and households and the resource endowments of the households were recorded in this schedule. This included the name of the village and its location (mandal/block, district, state, market town and distance from village, etc) and household details such as the name of the head of household, his/her father/spouse's name, caste, old household number, etc. This schedule also recorded the new household number, the farm-size group allocated to the household in the second generation of VLS, the family size, and the main and secondary occupations of the head of the family. If any member of the family held a position in any village organization such as the village panchayat, watershed committee, water users' association, education committee, etc, the details of the office were recorded.

Excel spreadsheet name: Gen. Info

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Village	Name of the survey village
3. Mandal	Name of the mandal/taluka in which the survey village is located

Continued

Fields	Description
4. District	Name of the district in which the survey village is located
5. State	Name of the state in which the survey village is located
6. Market_place	Name of the market town
7. Market_dist	Distance from the village (km)
8. Hhid	Household identification (village code, farm-size group and serial number)
9. Farm_size	Farm-size classification (labor, small, medium or large farm household)
10. New_vls_no	Household number assigned during second-generation VLS survey 2001/02
11. Old_vls_no	Household number assigned during first-generation VLS survey (1975-85)
12. Head_name	Name of the head of the household
13. Son_wife_of	Name of the father or spouse of the head of the household
14. Caste	The caste to which the household belongs
15. Family_size	Number of household members who share food from same kitchen
16. Main_occup	Occupation from which the family derives its major proportion of income
17. Subsidary_occup	Occupation from which family derives its second highest share of income
18. Elect_nomi_body	Name of the post presently held in an organization
19. Name_body	Name of the organization for which he/she was nominated/elected
20. Interview_date	Date on which information was collected from the household
21. Investigator_name	Name of the investigator who collected the information

A. Household Details

The details recorded in this module included the composition (names of the family members) of the household and their sex, completed years of age, member IDs, spouses and children of male and female individuals, marital status, year of marriage, years of education, education termination year, etc. Also information about the members' main and subsidiary occupations, degree of disability, if any, whether living with the family or outside the family was also recorded. If any of the family members had migrated out or was living outside the household for work or education, then the place, the frequency of his/her visits and the purpose was recorded. The following codes are used for disability and frequency of visits.

Degree of disability: 1 = Can do any farm or domestic work; 2 = Can do only domestic work; 3 = Can do only light farm work; 4 = Can do only light domestic work; and 5 = Completely disabled.

Frequency of visits: 1 = More than once a month; 2 = Once a month; 3 = More than once a year; 4 = Once a year; and 5 = Once in 2-3 years.

<u>Excel spreadsheet name:</u>　　A. Household details

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Serial_no	Numbering starts from one and continues
4. Mem_name	Name of the individual member residing in this household

Fields	Description
5. Sex	Sex (Male or Female) of each member of the family
6. Age	Completed years of age as of July 1
7. Member_id	Member code (ID) assigned to an individual member of the household
8. Spouse_male_id	Member code (ID) assigned to her spouse/husband
9. Spouse_female_id	Member code (ID) assigned to his spouse/wife
10. Child_male_id	Member code (ID) assigned to his/her father
11. Child_female_id	Member code (ID) assigned to his/her mother
12. Marital_status	Married, unmarried, divorced, widow, etc
13. Year_marriage	Year in which he/she got married
14. Yrs_education	Number of years of education
15. Year_edu_termination	The year in which the individual member finished education
16. Main_occp	Occupation from which the family derives its major proportion of income
17. Subsidary_occp	Occupation from which the family derives its second highest share of income
18. Degree_disability	See codes used for recording the disability of an individual
19. Living_outside	Whether the individual member is living with the family/outside
20. Outside_place	Name of the place if the individual member is living outside
21. Outside_dist	Distance from the village (km)
22. Outside_since	Since when (year)
23. Freq_visits	See codes used for frequency of visits to the village
24. Visit_purpose	Major purpose for staying outside (out-migration)
25. Remarks	Additional information related to the member

B. Landholding Details

This module was used to compute the operational landholding of the household during the 2004/05 cropping year. For this purpose, we recorded the status of each individual plot cultivated by the household. We also noted the local name of the plot, the plot code, ownership of the plot, total area, cultivable area, irrigable area, distance from house, soil type, value (Rs/acre), location, bunding and revenue rate, etc plot-wise. The following codes were used to describe the ownership status and soil type.

Land ownership status: Leased-in, Shared-in, Leased-out, Shared-out and Own.

Soil Type: 1 = Deep black; 2 = Medium black; 3 = Shallow black; 4 = Deep red; 5 = Shallow red; 6 = Gravelly; 7 = Problem soil; and 8 = Others.

<u>Excel spreadsheet name:</u>   B.Land holding

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Serial_no	Serial number (1, 2, 3 etc)
4. Plot_name	Local name given to a plot for identification

Continued

Fields	Description
5. Plot_code	Code given to a plot for identification (A, B, C etc)
6. Ownership_status	Ownership of the plot (codes)
7. Total_area	Total area of the plot (acres)
8. Cultivable_area	Actual area of the plot that is useful to cultivate crops
9. Irrigable_area	Area that under normal circumstance receives irrigation
10. Dist_house	Distance between house and plot (km)
11. Soil_type	Codes used for description of soil type (see codes)
12. Value_acre	Potential sale value (Rs/acre)
13. Location	Within the village boundaries/Outside the village
14. Bunding	Plot has any type of bunding (Yes/No)
15. Revenue	Revenue rate fixed by the government (Rs/acre)
16. Remarks	Other information related to the plot

C. Livestock Inventory

The details noted in this module included the number of livestock (bullocks, he-buffaloes, she-buffaloes, cows, young cattle) and small ruminants like goat, sheep, pigs, camels, donkeys, and poultry, etc owned by the household at the beginning of the agriculture year 2004/05. We also recorded information about the breed (local, improved or cross-bred), present age in months as of July 1, mode of acquisition, year of purchase, purchase price, source of finance (own, loan from moneylender/financial institution, etc) if purchased and present value of each category of livestock. The following codes were used for acquisition of livestock.

1 = Own farm rearing; 2 = Purchase; and 3 = Gift.

Breed (local, improved and cross-bred, mix of local and improved)

Excel spreadsheet name: C.Livestock inventory

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Particulars	Type of livestock including small ruminants
4. Number	Number of animals owned
5. Breed	Local, improved, Jersey
6. Age	Completed age in months
7. Acqui_mode	Own-farm rearing, purchase or gift
8. Year_pur	Year of purchase, if purchased
9. Pur_price	Amount paid (Rs) when the household purchased
10. Source_finance	Own or borrowed money
11. Present_value	Present market value of animals

D. Farm Equipment

Details of the number of items of major and minor farm equipment (tractors, threshers, electric motors, sprinklers, power sprayers, drip irrigation, cane crusher, rice and flour mills, truck/ autorickshaws, bullock carts, and wooden or iron-made minor farm implements) owned by the household and their total value as of July 1, 2004 were recorded in this module. The present value of each item of equipment and the horsepower of major equipment, the year of purchase, purchase price, source of finance (own, loan from moneylender/financial institutions, etc) were also recorded.

Excel spreadsheet name: D.Farm equipment

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Item	Type of farm equipment
4. Number	Number of items of equipment owned
5. Hp	Horsepower of major farm machinery (tractor, etc)
6. Year_pur	Year of purchase, if purchased
7. Pur_price	Amount paid (Rs) when purchased
8. Source_finance	Own or borrowed money
9. Present_value	Present market value (Rs)

E. Farm Building

Information about the type of residential building owned by the household was recorded in this module along with facilities in it such as electricity, drinking water, toilet and bathroom facilities and the present market value of the building. This module also provides information about ownership of any cattle sheds, farmhouses, residential plots consumer durables (LPG, TV, refrigerator, two-wheeled vehicles, gold and silver, furniture, fans, radio, utensils, etc) and their total value as of July 1, 2004. The following codes were used for the type of house.

Type of house: 1 = Strong walls and RCC roof; 2 = Strong walls and other type of roof; 3 = Mud walls with thatched roof; 4 = Mud walls with other roof; and 5 = Others.

Excel spreadsheet name: E.Building

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Item	Type of house, farmhouse, plots and consumer durables
4. Sub_item	Durables (two-wheeled vehicles, gold, furniture, utensils, fan, radio)
5. Facilities	Facilities such as toilet, bathroom, electricity, tap water, gas, etc.
6. Value	Present market value (Rs)

F. Financial Assets and Liabilities

To arrive at a picture of the financial assets and liabilities of the household at the beginning of the agriculture year (July 1, 2004), the survey recorded information about the household's borrowings from different sources, the amount borrowed, the purpose, the rate of interest per year and the amount lent money to friends, tenants and others. Information about savings deposited in banks, insurance companies, cooperative institutions, self-help groups, the post office, chit funds, the share market and Provident Fund was also collected along with the interest rate for those deposits.

<u>Excel spreadsheet name:</u>   Finan. assets & liabilities

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Bor_source	Borrowing sources (banks, money lender, cooperative institutions, friends, relatives, etc)
4. Bor_amount	Amount borrowed (Rs)
5. Bor_purpose	Purpose (inputs, marriage, education, investment, etc)
6. Bor_int_rate	Rate of interest (%) on borrowed money per year
7. Bor_remarks	Outstanding amount/Other remarks
8. Len_source	Lending to whom (villagers, friends, relatives, etc)
9. Len_amount	Amount given as loan (Rs)
10. Len_purpose	Purpose (inputs, marriage, education, investment, etc)
11. Len_int_rate	Rate of interest (%) on lending money per year
12. Len_remarks	Outstanding amount/Other remarks
13. Sav_source	Savings in banks, cooperative institutions, post office, LIC, SHGs etc
14. Sav_amount	Amount saved (Rs)
15. Sav_purpose	Purpose of saving
16. Sav_int_rate	Rate of interest (%) on savings per year
17. Sav_remarks	Outstanding amount/Other remarks

G. Perceived Benefits from SWC Practices

This module recorded information about the plot-wise benefits perceived by farmers from adopting soil and water conservation practices during 2004/05. Details of different soil conservation measures adopted by the households such as the total cost, the farmer's share of the total cost, benefits received by him/her in percentages and the approximate amount benefited by adopting such measures were also noted. The following codes were used in this module.

Soil conservation measures: 1 = Land leveling; 2 = Field/boundary bunds; 3 = Contour bunds; 4 = Broad bed and Furrow (BBF); 5 = Tree/grass plantation; 6 = Check dams; 7 = Water harvesting structures (farm pond etc); and 8 = 0thers (specify).

If the farmer received any benefits: 1 = Yield increased by 10%; 2 = Increased by 11%-25%; 3 = Increased by 26%-50%; 4 = Increased by 51%-75%; 5 = Increased by more than 75%; and 6 = No change.

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Name of the plot/number allocated to a particular plot
4. Plot_code	Code allocated to identify a particular plot (A, B, C, etc)
5. Swc_measure	Type of soil conservation measure adopted (codes)
6. Total_cost	Total cost (Rs) spent for adoption of soil conservation measure
7. Farmer_share	Share of the household (%) in total cost of soil conservation measure
8. Benefit_rec	Expected benefits from this measure (codes)
9. Approx_amt	Expected benefits in terms of money (Rs) from this measure

H. Impact of Development/Welfare Programs

The respondent households were asked to recall the developmental and poverty alleviation programs from which they had benefited during the survey year and the amount they had received as the benefit.

Excel spreadsheet name: Impact of dev. Prog

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Program	Name of the welfare program
4. Status	Benefited from this program (yes/no) during the year
5. Amt_benefited	Total amount approximately benefited from the welfare program

II. Household Survey Questionnaire (Part-2)

The second part of the questionnaire collected information separately for the rainy and postrainy seasons using same set of modules. The survey for the rainy season, covering the period from July 1 to December 31, was carried out in January 2005 and the survey for the postrainy season, covering the period from January 1 to June 30 2005, was done in June/July 2005.

1. Employment Module

This module was designed to record season-wise (rainy and postrainy) information regarding the participation of household members in the village labor market, in caste and other occupations and out-migration for non-farm work during 2004/05.

1.1. Participation in the village labor market: The survey noted the individual members of the household who had participated in wage employment for farm and non-farm work daily/monthly/ yearly during the rainy and postrainy seasons of 2004-05 and recorded data about the total number of employment days, the wage rate, total earnings and the number of involuntary unemployment days. The number of involuntary unemployment days was also recorded for each individual who

was participating in the village labor market.

Status of employment: Daily wage earner, monthly worker and regular farm servant

Type of work: Farm work, government work (Employment Guarantee Scheme) and food for work

Excel spreadsheet name: 1.1.Mem. in lab. Market

(Two Excel files with the same name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in the village labor market
4. Mem_id	Member code (ID) assigned to individual member of the household
5. Sex	Gender (Male/Female)
6. Status	Daily wage, monthly salaried jobs, etc
7. Work_type	Farm work or non-farm work
8. Emp_days	Number of employment days worked by the member
9. Wage_rate	Average wage rate (Rs/day)
10.Tot_earning	Total wages received during the season (Rs)
11. Invl_unemp_days	Number of involuntary unemployment days during the season

1.2. Participation in caste occupations: Caste occupations such as toddy sale, carpentry, black smithy, laundering, barber services, sheep rearing and pottery are important caste-based occupations in VLS villages. The survey collected information on the participation of household members in such caste occupations during the rainy and postrainy seasons of 2004/05. This included data on their sex, type of occupation, the number of days worked, average working hours per day and the total earnings received by each individual during the rainy and postrainy seasons.

Caste occupation: Toddy tapping and selling; Carpentry; Goldsmith; Mason; Washerman; Barber; Sheep-rearing; Butcher; Pottery; Cobbler; Basket-making; Weaving; and Religious services.

Excel spreadsheet name: 1.2.Mem. in caste occ

(Two Excel files with the same name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in his/her caste occupation
4. Mem_id	Member code (ID) assigned to the individual member of the household
5. Sex	Gender (Male/Female)
6. Occp_type	Type of caste occupation (goldsmith, washerman, carpenter)
7. Days_worked	Number of days the member worked during the season
8. Working_hrs	Average working hours/day
9. Inc_rec	Approximate total income received (Rs) during the season

1.3. Participation in other occupations: Household members were asked whether they had participated in occupations other than caste occupations during the rainy and postrainy seasons of 2004/05. If the answer was yes, details including their sex, the type of occupation they had undertaken, the number of days they had worked during the rainy and postrainy seasons, the average number of working hours per day and their total earnings during each season were recorded.

Occupation: Tailoring, shop-keeping, mechanic, selling vegetables and fruits, running own autorickshaw, financing, leaf-plate making, mat-weaving and selling and part/full-time jobs.

Excel spreadsheet name: 1.3.Mem. in other occ

(Two Excel files with the same name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who participated in other occupations
4. Mem_id	Member code (ID) assigned to the individual member of the household
5. Sex	Gender (Male/Female)
6. Occp_type	Other occupations (shop, autorickshaw, money lender, mat and leaf-plate making, etc)
7. Days_worked	Number of days the member worked during the season
8. Working_hrs	Average working hours/day
9.Inc_rec	Approximate total income received (Rs) during the season

1.4. Temporary out-migration for work: Out-migration has been increasing in all VLS villages particularly in Andhra Pradesh since the 1990s because of the increase in population and nonavailability of work within the village. The main reasons for migration reported by the migrants were (a) not getting employment throughout the year within the village; (b) negligible alternative employment opportunities; (c) high population pressure; and (d) low wage rates for farm and non-farm activities. This module recorded data on household members who had temporarily migrated from the village to find daily wage employment (farm and non-farm) or part/full-time monthly salaried jobs during the rainy and postrainy seasons of 2004/05. We also noted details of their sex, place of work, distance from the village, type of work, employment days, daily wage rate, total earnings, amount spent during their stay at the work place, involuntary unemployment days and the amount received as advance.

Excel spreadsheet name: 1.4.Mem-Migrated

(Two Excel files with the same name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Mem_name	Name of the member who temporarily migrated from the household
4. Mem_id	Member code (ID) assigned to the member
5. Sex	Gender (Male/Female)

Continued

Fields	Description
6. Place_migr	Name of the place to which the person migrated
7. Distance	Distance from village (km)
8. Work_type	Type of work (farm, non-farm, etc) performed by the migrant
9. Emp_days_mon	Number of days the member got employment
10. Wage_rate	Average wage rate (Rs/day)
11. Tot_earning	Total wages (Rs) received during the season
12. Amt_spent	Total amount spent (Rs) at work place during the season
13. Invl_unemp_days	Number of involuntary unemployment days
14. Adv_rec	Advance payments received (Rs) if any

2. Cultivation Schedule

This module provides plot/subplot-wise information about the crops grown by the sample households during the rainy and postrainy seasons of 2004/05. The other details in it include the local name of the plot, ownership, cropped area, irrigated area, crops planted in that plot and the proportion of area under each crop if the farmer had practised inter or mixed-cropping, the variety (local, improved, hybrid) of each crop, and the crop outputs (main and byproducts) of each crop and their market prices existing at the time of harvest. The following codes were used.

Land ownership status: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); and Shared-out (SO).

Season codes: K = Kharif; R = Rabi; S = Summer; and P = Perennial.

Excel spreadsheet name: 2.Crop. pattern

(Two Excel files with the same name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Plot_name	Local name and code given to a plot for identification
4. Ownership_status	Ownership of the plot (codes)
5. Crop_area	Area (acres) under that particular crop/crop mixture
6. Irri_area	Actual area that received irrigation for that crop
7. Cropping_ pattern	Sole/inter/mixed crop
8. Crop_name	Name of the crop/crop mixture grown by the household
9. Proportion	Ratio of two crops if intercrop or proportion of each crop if mixed
10. Variety	Name of the crop variety/varieties
11. Main_prod_kg	Main production harvested (kg)
12. Prod_price	Market price (Rs/kg)existing at harvest time
13. Byprod_qt	Byproduct harvested (qts)
14. Byprod_price	Market price (Rs/qt) existing at harvest time
15. Remarks	Any other information

3. Production and Utilization

Details of the crop outputs (main and byproduct) and livestock production (milk, ghee (clarified butter), wool, eggs and FYM) and their utilization during the rainy and post rainy seasons of 2004/05 were recorded in this module.

3.1. Utilization of outputs: This module includes data on the crop and livestock outputs produced by the household during the two seasons and how these outputs were utilized (consumption, retained for own seed and other purposes). It also includes information on the quantities of crop and livestock outputs sold in the market, its price, and the place of sale distance from home and to whom the produce was sold in each season. The following codes were used for marketing of product.

Markets: 1 = Village shop; 2 = Primary market; 3 = Secondary market; 4 = Regulated market; and 5 = Others (specify).

<u>Excel spreadsheet name</u>:   3.1.Prod. & util. (Crop & Livestock)

(Two Excel files with the same name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop	Name of the crop cultivated by the household
4. Crop_output_kg	Total main production from that crop (kg)
5. Crop_consumption	Total quantity consumed (kg)
6. Crop_own_seed	Total quantity kept for own seed (kg)
7. Crop_other_use	Total quantity used for other uses (kg)
8. Crop_sold_kg	Total quantity sold (kg)
9. Crop_unit_price	Sale price (Rs/kg)
10. Crop_sold_place	Place where the crop output was sold
11. Crop_sold_dist	Distance between market and house (km)
12. Crop_sold_whom	To whom crop output was sold (codes)
13. Byprod_own_use	Byproduct used as fodder for cattle (qt)
14. Byprod_sold	Byproduct sold as fodder (qt)
15. Byprod_unit_price	Sale price (Rs/qt)
16. Lst_product	Types of livestock products (milk, butter, ghee, dung, etc)
17. Lst_output	Total production of each product (L/kg/qt)
18. Lst_consumption	Total quantity consumed
19. Lst_own_use	Total quantity kept for own use
20. Lst_other_use	Total quantity used for other uses
21. Lst_prod_sold	Total quantity sold (kg/L/qt)
22. Lst_unit_price	Sale price (Rs/unit)
23. Lst_sold_place	Place where the livestock output was sold
24. Lst_sold_dist	Distance between market and house (km)
25. Lst_sold_whom	To whom livestock output was sold (codes)

3.2. Major production constraints in dry land agriculture: Responses were elicited from the farmers on their major production constraints crop-wise during the rainy and post rainy seasons of 2004/05. These constraints were listed in a row (drought, pests and diseases, poor seed, poor soil, too much rain, weeds and others, etc). The important crops were listed in a column. The households were asked to list the major production constraints for each crop grown by the household during the rainy and post rainy separately. Households ranked the constraints in order of importance for each crop grown.

Excel spreadsheet name: 3.2.Major prod. const-dry land

(Two Excel files with the same name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop	Name of crops grown by the household in its dry land field
4. Drought	Ranked by the household if drought is a constraint to the crop
5. Pest_disease	Ranked by the household if pests are a constraint to the crop
6. Poor_seed	Ranked by the household if poor seed is a constraint to the crop
7. Poor_soil	Ranked by the household if poor soil is a constraint to the crop
8. Excess_rain	Ranked by the household if excess rain is a constraint to the crop
9. Weed	Ranked by the household if high weeds are a constraint to the crop
10. Others1	Ranked by the household if others1 is a constraint to the crop
11. Others2	Ranked by the household if others2 is a constraint to the crop

4. Socioeconomic and Agro-biological and Institutional Aspects

This module records the perceptions of households about changes in climatic conditions, the rainfall pattern, the number of attempts made to dig wells and bore wells to exploring for ground water, the status of the village labor market, the existing wage rates and the sources of information on dry land agriculture.

4.1. Rainfall: Most of the farmers perceive that climatic conditions (quantum of rainfall and distribution, temperature and water table, etc) have been changing in recent years. So this module was developed to record the perceptions of households on climate change. Data for this module was collected only in the rainy season. It included information about rainfall (good, normal, bad and very bad) during 2004/05.

4.2. Rainfall pattern: Information collected here included the household's observations on the quantum and distribution of rainfall, the number of rainy days, outlayer events, arrival of monsoons (on time, late or early), availability of water in the resources (Tanks, wells and bore wells), and temperature during 2004/05.

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Excel spreadsheet name: 4.1&2.Climate & rainfall

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
4. Characteristics	Characteristics (quantum, distribution, rainy days, temperature, etc)
3. Climate_cond	Farmer's opinion about climatic conditions (rainfall) during the year
5. Observation	Observations (erratic, high, low, late, decline) of the household

4.3. Digging open dug wells or bore wells: Irrigation water has become an important component of agriculture in recent years. The majority of households spends large amounts of money on drilling wells and bore wells. Some of these attempts are not successful. This part of the module recorded information about the number of attempts made by households in the rainy season of 2004/05 to dig wells, bore wells, in-well bores, deepening of wells, etc, and the depth (in feet) of each such attempt, the number of successful attempts, the number of wells presently in use and the total amount spent on each attempt. Similar information was collected from the same households for the post rainy season using the same survey instrument.

Excel spreadsheet name (rainy season):   4.3.Changes-Wells

Excel spreadsheet name (post rainy season):   4.1.Changes-Wells

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Change_wells	Whether household tried to dig wells, bore wells, and in-well bores (Yes/no)
4. Well_type	Type of irrigation sources (wells, bore wells, in-well bores and deepening)
5. No_attempts	Number of attempts to dig (wells, bore wells, in-well bores, etc)
6. Depth	Average depth (ft) of each attempt
7. Succ_attempts	Number of successful attempts
8. Presently_use	Number of water resources (wells and bore wells) presently in use
9. Amt_spent	Total amount (Rs) spent including failed attempts

4.4. Wage rates for human labor, bullocks and machinery: Village labor markets are important sources of income particularly for landless households. This module gathered information about the existing wage rates for human labor and rental rates for bullocks and tractors (with operator) in the rainy season. It also included details of the wage rate per hour/day/month/year and the average number of working hours per day for human and bullock labor. Similar information was collected from the same households for the post rainy season using the same survey instrument.

Excel spreadsheet name (rainy season):   4.4.Wage rates

Excel spreadsheet name (post rainy season): 4.2.Wage rates

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Type_work	Type of work (farm, non-farm, Regular farm servant)
4. Unit_d_m_y	Unit (day, month and year)
5. Avg_work_hrs	Average working hours/day
6. Male	Existing wage rate for male in the village (Rs/day)
7. Female	Existing wage rate for female labor in the village (Rs/day)
8. Bullocks	Existing rental for bullocks with operator in the village (Rs/day)
9. Tractor	Existing rental rate for tractor in the village (Rs/hour or acre)

4.5. Sources of information on dry land agriculture: Farmers depend on different sources of information besides their own experience when they adopt new technologies. We collected data in the rainy season on the households' sources of information for technologies adopted by them during 2004/05. The subjects of our queries included use of improved seed, fertilizer, pesticides and adoption of crop rotation, soil conservation practices and pest control measures such as when to apply, type of pesticide, quantity and mixing of chemicals, etc. The households were asked to rank their major sources of information (progressive farmers, extension personal, shop-keepers, krishi vigyan kendras, relatives, friends, TV, radio, newspapers, etc) in order of importance for each technology received by them during 2004/05.

Excel spreadsheet name: 4.5.Source of info-Dry land agri

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Decision	Type of information/technologies adopted for dry land agriculture
4. Prog_farmers	Rank given if progressive farmers were a source of information
5. Extension	Rank given if extension personnel were a source of information
6. Shopkeeper	Rank given if shopkeepers were a source of information
7. Kvk	Rank given if Krishi Vigyan Kendras were a source of information
8. Rel_friends	Rank given if relatives and friends were a source of information
9. Tv_media	Rank given if media were a source of information
10. Others	Rank given if others were a source of information

5. Livestock Economics

We elicited information from the households on maintenance of livestock and small ruminants and recorded the expenditure and returns from livestock rearing in the rainy season. Details of expenditure on dry and green fodder, grazing, concentrates and feeds, labor and veterinary costs for each category of livestock (draft animals, cows, she-buffaloes, young cattle, sheep and goats, poultry and others) were collected. Details of outputs (milk, dung, wool and eggs) and their

price per unit were collected to compute the net returns from livestock enterprises. Changes in the status of livestock due to births and deaths were also recorded. Income received from hiring out animals and the number of days draft animals were put to work on the household's own farm was included in this for calculating maintenance costs. Similar information was collected from the same households for the post rainy season.

Excel spreadsheet name: 5. Livestock economics

(Two Excel files with same name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Livestock	Type of livestock owned during the season (draft, milk, sheep, goats, etc)
4. Number	Number of animals owned by the household under each category
5. Dry_fod_type1	Type of dry fodder1 (paddy, maize, wheat, millet, sorghum straw)
6. Dry_fod_qty1_qt	Quantity (qt)
7. Dry_fod_price1	Unit price (Rs/qt)
8. Dry_fod_type2	Type of dry fodder 2 (paddy, maize, wheat, millet, sorghum straw)
9. Dry_fod_qty2_qt	Quantity (qt)
10. Dry_fod_price2	Unit price (Rs/qt)
11. Green_fod_type	Type of green fodder (maize, lucerne, sorghum, para grass, etc)
12. Green_fod_qty_qt	Quantity (qt)
13. Green_fod_price	Unit price (Rs/qt)
14. Grazing_share	Share of fodder (%) in total requirement received through grazing
15. Grazing_val	Estimated value (Rs) by the household
16. Concen_grain_type	Type of concentrates or grain fed to livestock
17. Concen_grain_qty_kg	Quantity (kg)
18. Concen_grain_price	Unit price (Rs/kg)
19. Labour_grazing	Estimated cost (Rs) of labor used for grazing
20. Labour_others	Estimated cost (Rs) of labor used for feeding, washing and milking
21. Medicine	Cost of medicines given to cattle (Rs)
22. Transport	Cost of transportation if animals moved out (Rs)
23. Ropes	Amount spent for buying ropes and other material
24. Death	Number of animals that died
25. Change_val	Estimated value (Rs) of dead animals
26. Birth	Number of animals added by birth
27. Milk_qty_ltr	Total quantity of milk (L) produced during the season
28. Milk_price	Sale price (Rs/L)
29. Dung_qty_qt	Total quantity of dung production during the season (qt)
30. Dung_price	Market price (Rs/qt)

Continued

Fields	Description
31. Wool_egg_qty	Total quantity of wool/egg production during season
32. Wool_egg_price	Market price (Rs/kg or Rs/no.)
33. Hire_income	Total income received by hiring out animals during the season (Rs)
34. Days_own_work	Total days worked in the field or house of household during the season
35. Animals_sold	Number of animals sold during the season
36. Selling-amount	Amount received by selling animals

6. Major Sources of Income

This module recorded information about the estimated net income of each household from different sources during the rainy and postrainy seasons. The sources of income investigated included agriculture, labor earnings from farm and non-farm work, livestock, rental income, caste and other occupations, salaried jobs, business, handicrafts, migration and remittances, etc.

Excel spreadsheet name: 6.Major sou. of income

(Two Excel files with the same file name for the rainy and postrainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Sources	Type of major sources of income
4. Net_inc	Net income from each source

7. Crop Insurance

Farmers were asked whether their crops were covered by crop insurance during the rainy and post rainy seasons of 2004/05. If the answer was yes, they were asked which crops were covered in the rainy and post rainy seasons, the area under these crops, the premium paid and the amount received as crop insurance by the household in each season.

Excel spreadsheet name: 7.Crop insurance prog

(Two Excel files with the same name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Ans	Whether crops grown by the household were covered by crop insurance (yes/no)
4. Crops	If yes, name of the crop
5. Area_acres	Area under that crop (acres)
6. Premium_paid	Premium paid (Rs)
7. Amt_cov	Amount covered under crop insurance

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8. Household Transactions

The purpose of this module was to estimate the item-wise quantities of food consumed by the household and the total expenditure incurred on food and non-food items during the rainy season of 2004/05. This would reflect the capacity of the household to access consumer goods and services and describes its living standards. The survey personnel recorded information about the household's expenditure on broad categories of food (cereals, pulses, other food items such as oils, vegetables, milk and milk products, fruits, fish, meat and chicken, etc.) and nonfood expenditure (cosmetics, education, medical, clothing, travel, ceremonial, house improvement, dowry, payment for services and purchase of land, livestock and farm implements, etc). The quantity of each item consumed by the household per day/month/year and their unit prices were recorded to compute the total cost of each item and the total expenditure for the whole rainy season. Similarly, the total consumption expenditure of each household was computed for the postrainy season using the same survey instrument.

Excel spreadsheet name: 8.Seasonal expenses

(Two Excel files with same file name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Cereal_name	Name of the cereal (rice, wheat, millet, sorghum, maize, etc)
4. Cereal_d_m_y	Requirement (per day/month/season)
5. Cereal_qty	Cereal quantity required/consumed (kg)
6. Cereal_unit_pr	Average unit price (Rs/unit)
7. Cereal_tot_pr	Total cost of cereal (Rs)
8. Pulses_name	Name of the pulses (pigeonpea, chickpea, green/blackgram, etc)
9. Pulses_d_m_y	Requirement (day/month/season)
10. Pulses_qty	Pulses quantity required/consumed (kg)
11. Pulses_unit_pr	Average unit price (Rs/unit)
12. Pulses_tot_pr	Total cost of pulse (Rs)
13. Otherfood_name	Name of other food items (milk, tea/coffee, meat, vegetables, etc)
14. Otherfood_d_m_y	Requirement (day/month/season)
15. Otherfood_qty	Other food quantity required/consumed (kg)
16. Otherfood_unit_pr	Average unit price (Rs/unit)
17. Otherfood_tot_pr	Total cost of other food item (Rs)
18. Nonfood_name	Nonfood items (wine, clothing, medical, education, cosmetics, etc)
19. Nonfood_d_m_y	Non-food requirement (day/month/season)
20. Nonfood_tot_pr	Total cost of nonfood item (Rs)
21. Consumer_name	Consumer durables (clothing, furniture, medical, travel, dowry, etc)
22. Consumer_d_m_y	Requirement (day/month/season)
23. Consumer_tot_pr	Total cost of consumer durable (Rs)
24. Purchases_name	Name of the other purchase items (land, livestock and implements)

| 25. Purchases_d_m_y | Requirement (day/month/season) |
| 26. Purchases_tot_pr | Total cost of other purchase items (Rs) |

9. Coping Mechanisms

Each family was asked whether they had adopted any coping mechanisms in the rainy season of 2004/05 to cope with falling income. If the answer was yes, then they were asked to list these coping mechanisms in order of importance. Similar information was collected from each household for the post rainy season using the same survey instrument.

<u>Excel spreadsheet name:</u>   9.Coping mech

(Two Excel files with the same file name for the rainy and post rainy seasons)

Fields	Description
1. Sur_yr	Year of survey (2004/05)
2. Hhid	Household identification (village code, farm-size group and serial number)
3. Crop_fail_y_n	Whether coping mechanisms were adopted due to crop failure (yes/no)
4. Cop_mech	Type of coping mechanisms adopted
5. Rank	Rank given by the household for each coping mechanism

XI. Plot and Cultivation Schedule (Input-Output Information)

The same module that had been used for the earlier surveys (2001/02, 2002/03 and 2003/04) was also used for the crops grown by the household during 2004/05 without changing the codes used for field operations, human labor, bullock labor and machinery and also the unit codes used for labor, inputs and production. Input and output data for crops grown by the household in the rainy and postrainy seasons were collected separately. This data is accessible in two different folders for the two seasons separately.

INPUT-OUTPUT <u>(Two Excel files with the same file name for rainy and post rainy seasons</u>:

Aurepalle_IO
Dokur_IO
Kanzara_IO
Kalman_IO
Kinkheda_IO
Shirapur_IO

Household Survey Questionnaire for ICRISAT Village Level Studies (VLS) Project in India (2001/02)

Module I: General Information

1. Village information

1.1. Village: _____ 1.2. Mandal/Block: _____

1.3. District: _____ 1.4. State: _____

2. Household information

2.1. Name of the head: _____

2.2. Son/wife/daughter of: _____

2.3. Caste: _____

2.4. Old VLS H.H. No.: _____

2.5. New VLS H.H. No.: _____

2.6. Present farm-size group: _____

2.7. Are you/anybody in your family a member of any elected or nominated body (specify details):

_____

3. Family composition

Name	Relationship with head of household	Sex	Age	Education			Occupations		
				Years	Place*	Distance	1	2	3

* Last place where studied.

Module II: Landholding Details

1. Landholding in 1985 and 2001/2002 (acres)

Particulars	Dryland		Irrigable		Permanent fallow		Total area	
	1985	2001	1985	2001	1985	2001	1985	2001
Own land								
Leased/shared-in								
Leased/shared-out								
Operated area (owned area + leased/shared-in – leased/shared-out area)								

2. Plot characteristics and soil conservation practices adopted by the farmer in each plot

Plot name and serial no.	Distance from home (km)	Distance from well/tank/pond (km)	Area (acres)	Irrigable area (acres)	Source of irrigation	Land tenure[1]	Soil type[2]	Soil depth[3]	Soil fertility[4]	Slope[5]	Soil degradation[6]	No. of trees

[1]. 1 = Owned; 2 = leased-out; 3 = shared-out; 4 = leased-in; and 5 = shared in.

[2]. 1 = Red soil; 2 = Sandy soil; 3 = Murram soil; 4 = Deep black; 5= Medium black; 6 = Shallow soil; 7 = Sandy loam; 8 = Saline; and 9 = Alkaline.

[3]. 1 = Shallow (<0.5 m); 2 = Medium (0.6-1 m); 3 = Deep (1.1-1.5 m); and 4 = Very deep (>1.5 m).

[4]. 1 = Very poor; 2 = Poor; 3 = Good; and 4 = Very good.

[6]. 1 = Level (0-1%); 2 = Slight slope (1-3%); 3 = Medium slope (3-10%); and 4 = High slope (>10%).

[6]. 1 = No problem; 2 = Soil erosion; 3 = Nutrient depletion; 4 = Water logging; 5 = Salinity/alkalinity/acidity; and 6 = Others _____ .

3. Benefits perceived by the farmer in adopting soil conservation practices

Plot no.	Type of soil conservation measure[1]	Year of adoption	Total cost[2] (Rs)	Farmer's share in total cost (%)	Cost of maintenance of structures for year	No. of years benefits expected	Benefits perceived by the farmer (%)[3]				Main reasons for increase/not increasing benefits		Mitigation measures to counteract soil fertility decline[4]
							Soil fertility	Control of soil erosion	Crop productivity	Others	1	2	

1. Soil conservation measures: 0 = Not adopted any measure; 1 = Land leveling; 2 = Field/boundary bunds; 3 = Contour bunds; 4 = BBF; 5 = Tree/grass plantation; 6 = Check dams; 7 = Water harvesting structures (Farm pond, etc); and 8 = Others (specify) _____.

2. Write zero if the soil conservation structures were constructed by the Government free of cost.

3. If farmer perceived any benefits (use codes): 1 = Increased by 10%; 2 = Increased by 11%–25%; 3 = Increased by 26%–50%; 4 = Increased by 51%–75%; and 5 = Increased by more than 75%. If farmer did not perceive any benefits (use codes): 6 = No change; 7 = Fell by 10%, 8 = Fell by 11%–25%; 9 = Fell by 26%–50%; 10 = Fell by 51%–75%; and 11= Fell by more than 75%.

4. Mitigation measure: 1 = Increased FYM use; 2 = Increased use of chemical fertilizer; 3 = Seasonal fallow; 4 = Soil and water conservation measures; 5 = Shift to new crops; and 6 = Others (specify) _____.

Note: If a farmer adopted different types of soil conservation practices in the same main plot, repeat the same plot number with soil conservation code.

Module III: Cropping Pattern

1. Cropping pattern during 2001/2002 (area in acres).

Plot name (code)	Ownership*	Name of the crop	Proportion	Variety (local/hybrid/ improved)	Cropped area (acres)	Season	Irrigated area (acres)	Main production (kg)	Price/kg	Byproduct (qt)	Price/qt

* Use codes: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); and Shared-out (SO).

2. Crops planted up to the end of July 2002 (area in acres)

Plot name (code)	Ownership*	Name of the crop	Proportion	Variety (local/hybrid/ improved)	Cropped area (acres)	Season	Irrigated area (acres)	Main production (kg)	Price/kg	Byproduct (qt)	Price/qt

Module IV: Household Resources

1. Resource position of the household in 1985 and 2001 (value in Rs)

Resources	1985			2001		
	Quantity	Unit price	Total value	Quantity	Unit price	Total value
1. Land (acres)						
1. Dryland						
2. Irrigated land						
2. Livestock (number)						
1. Draft animals (bullocks and he-buffaloes)						
2. She-buffaloes						
3. Cows						
4. Young cattle						
5. Goats						
6. Sheep						
7. Pigs						
8. Poultry						
9. Others (specify)						
3. Farm equipment (number)						
1. Tractor with attachments						
2. Threshers						
3. Electric motors/oil engines						
4. Sprinkler sets/Drip irrigation						
5. Submersible pump sets						
6. Power or manual sprayer/duster						
7. Modern plow/seed drill/disc harrow, etc						
8. Power-operated mills						
9. Oil seed/sugarcane crusher						
10. Bullock cart						
11. Hand-operated tools/implements						
12. All farm implements (plows, seed drill, blade harrow, tooth hoe, leveler and others)						
13. Others (specify)						
4. Farm building (sq. yard)						
1. Residential house including courtyard						
1.1. Strong house with rock/cement walls	Yes/no			Yes/no		
1.2. Toilets	Yes/no			Yes/no		
1.3. Bathroom and sanitary facilities	Yes/no			Yes/no		
1.4. Electrified	Yes/no			Yes/no		
1.5. Tap water connection	Yes/no			Yes/no		
1.6. Star connection (Cable TV)	Yes/no			Yes/no		

2. Farmhouse including courtyard		▓			▓	
3. Residential plot		▓			▓	
4. Others (specify)		▓			▓	
5. Consumer durables						
1. Gold and silver	▓			▓	▓	
2. Auto/two-wheelers (scooter, bicycle, etc)		▓			▓	
3. Refrigerator/Fridge		▓			▓	
4. Television		▓			▓	
5. Telephone		▓			▓	
6. Sewing machine		▓			▓	
7. Fan, radio, tape recorder and watches, etc	▓			▓	▓	
8. Cooking gas (LPG)	▓			▓	▓	
9. Furniture (tables, chairs, cots, sofaset, etc)	▓			▓	▓	
10. Household utensils (steel, brass, copper)	▓			▓	▓	
11. Clothing	▓			▓	▓	
12. Others (specify)	▓			▓	▓	

Module V: Socioeconomic, Agrobiological and Institutional Aspects

1. Perceptions about climatic changes

1.1. Has there been any change in the rainfall pattern compared to 1985 (17 years ago)?   **Yes/No**

   If yes, answer the following questions:

Characteristics	Description	Main reasons
1. Quantum of rainfall	Increased/decreased/no change	
2. Distribution of rainfall	Highly erratic/no change/better	
3. Number of rainy days	Increased/decreased/no change	
4. Outlier events	Increased/decreased/no change	
5. Arrival of monsoons	Early/late/no change	
6. Availability of water in wells and bore wells	Increased/decreased/no change	
7. Availability of water in irrigation tanks	Increased/decreased/no change	
8. Temperature (winter)	Increased/decreased/no change	
9. Temperature (summer)	Increased/decreased/no change	

1.2. Has there been any change in the irrigated area operated by you compared to 17 years ago?   **Yes/No**

   If yes, please answer the following questions:

Crops	Irrigated area in acres			Reasons for increase/decrease
	1985/86	2001/02	Status*	
1. Rainy-season paddy				
2. Postrainy-season paddy				
3. Rainy-season groundnut				
4. Postrainy-season groundnut				
5. Cotton				
6. Vegetables				
7. Fruit garden				
8. Sugarcane				
9. Onion				
10. Chickpea				
11. Wheat				
12. Maize				
13. Other crops				
13.1.				
13.2.				

* Increased/decreased/no change.

1.3 Have you or your family members ever tried to dig open dug wells or bore wells since 1985?
   Yes/No

   If yes, please answer the following questions:

Type	Number of attempts	Depth (ft) of each attempt	Successful attempts	Presently in use	Total amount (Rs) spent including failed attempts
1. Open dug wells					
2. Bore wells					
3. In-well bores					
4. Deepening of well					

2. Changes in assets position (land, labor and credit)

2.1. Has there been any change in your ownership status of land in the last 17 years (1985)?
Yes/No
If yes, please answer the following questions:

Type of transactions*	Year	Area (acres)	Price per acre (Rs)

• Sale/purchase/gift from Government/relatives; Lost in litigation and family division.

2.2. Please answer the following questions about your land and related aspects compared to 1985:

Characteristics	Status*	Reasons
1. Number of land transactions		
2. Number of parcels		
3. Irrigated area		
4. Land quality		
5. Land values		
6. Leased/shared-in land		
7. Leased/shared-out land		

* Increased/Decreased/No change.

2.3. What is the status of the labor market in the village compared to 1985?

Characteristics	Status	Reasons
1. Opportunities for farm work	High/low/no change	
2. Opportunities for non-farm work	High/low/no change	
3. Availability of labor for work	Surplus/shortage/no change	
4. Involuntary unemployment days	Increased/decreased/no change	
5. Availability of regular farm servants (RFS)	Surplus/shortage/no change	
6. Working hours for labor per day	Increased/decreased/no change	
7. Wage rate per day	Increased/decreased/no change	
8. Contract type of work	Increased/decreased/no change	

2.4. How many members of your family participated in the village labor market during 2001/2002?

Name	Sex	Status*	Type of work	Employment days	Wage rate (day)	Total earnings (Rs)	Involuntary unemployment days	Amount received as advance

 * Daily wage earner, monthly worker or working as RFS

2.5. How many members of your family temporarily migrated out during 2001/2002?

Name	Sex	Place	Distance (km)	Type of work	Employment days/ months	Wage rate	Total (Rs)	Amount spent during stay	Involuntary unemployment days	Amount received as advance

2.6. How many members of your family participated in caste occupations during 2001/2002?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/ day	Approximate income received (Rs)

 * Toddy tapping, toddy selling, carpentry, goldsmith, mason, washerman, barber, sheep rearing, butcher, pottery, basket-making, weaving, religious services, cobbler, etc

2.7. How many members of your family participated in other occupations during 2001/2002?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/day	Approximate income received (Rs)

* Stitching clothes, Vegetable/ fruit selling, mechanic, running own autos/tractor, business, shop-keeping, money lending, leaf-plate selling, mat weaving, firewood selling, Government/private jobs (part- and full-time)

2.8. What is the position of your financial assets and liabilities during 2001/2002?

Type	Source	Amount (Rs)	Purpose	Interest rate	Outstanding
I. Borrowings					
1.					
2.					
3.					
II. Lending					
1.					
2.					
III. Savings					
1. Banks					
2. Insurance policies					
3. Share market					
4. Cooperative societies					
5. Others					

2.9. Are you or anyone in your household a member of local chit funds or self-help groups (SHGs) run within/outside the village?   **Yes/No**

Program	Total members	Monthly contribution (Rs)	Amount accumulated till today by member	Share of fund/ grant given by government	Total amount of chit	Auctioned the chit (yes/no)	If yes, amount received	Purpose of spending
I. SHG								
1								
2								
II. Chit fund								
1.								
2.								

2.10. What changes have you observed in the village in the past 20 years?

Facilities	Improved/Not improved	Reasons
Type of roads and transport		
Drainage and street lights		
Marketing facilities		
Communication		
Health and medical		
Drinking water		
Awareness		
Standard of living		
Literacy rates		

3. Changes in the cropping pattern

3.1. What major changes have you adopted in your present cropping pattern compared to 1985?

Crops	Main reasons			
	1	2	3	4
I. Area increased				
1.				
2.				
3				
4.				
5.				
II. Area decreased				
1.				
2.				
3.				
4.				
5.				
III. Area constant				
1.				
2.				
3.				
IV. Completely stopped				
1.				
2.				
3.				
4.				
V. New crops				
1.				
2.				
3.				

3.2. Have you adopted any of the following technologies in recent years?

Type of technology	Adopted/not adopted/partially adopted	% area covered under this technology	Reasons for non/partial adoption
1. Tractors			
2. Tropicultor (implement)			
3. Improved/HYY seed			
4. Chemical fertilizer			
5. Herbicides			
6. Chemical pesticides			
7. Power sprayers/dusters			
8. IPM & IDM technologies			
9. Harvester			
10. Thresher			
Soil conservation practices			
1. Contour bunding			
2. Field bunds			
3. Bed and furrow			
4. Gully control checks			
5. Planting across the slope			
6. Check dams			
7. Grass/tree planting			
8. Farm pond			
9. Others			

4. Changes in the consumption pattern

4.1. What major changes have you made in your present consumption pattern compared to 1985 and how much quantity of the following items were required by your family from June 2001 to July 2002?

Food items	Change*	Quantity required (average)			
		Quantity (kg or L)	Day/Month/Year	Unit price (Rs)	Total cost (Rs)
I. Cereals					
1. Sorghum					
2. Pearl millet					
3. Finger millet					
4. Wheat					

5. Rice					
6. Others					
II. Pulses					
1. Pigeonpea					
2. Chickpea					
3. Greengram					
4. Blackgram					
5. Cowpea					
6. Matki/Delicus lablab (Minor pulses)					
7. Masur dal/Lentil					
8. Others					
III. Other food items					
1. All types of oil					
2. Milk					
3. Milk products (ghee, butter)					
4. Vegetables					
5. Meat, fish and chicken					
6. Eggs					
7. Fruits					
8. Tea, coffee, sugar and jaggery					
9. Snacks, biscuits, candy, etc					
10. Chillies and spices					
11. Others					
IV. Nonfood items					
1. Toddy					
2. Alcohol					
3. Pan, beedi, cigarettes, etc					
4. Furniture		Yearly			
5. Jewellery		Yearly			
6. Clothing		Yearly			
7. Entertainment					
8. Education					
9. Medical					
10. Cosmetics					
11. Maintenance cost (TV, gas, vehicle, telephone, radio, etc)					
12. Travel and ceremonial		Yearly			
13. Gifts/dowry paid		Yearly			
14. Payment of electricity, water, telephone, star, etc		Monthly			

15. Payment to services (pot maker, barber, washerman, maidservant, carpenter, etc)		Yearly			
16. House improvements and tax		Yearly			
17. Others					
V. Farm inputs and labor wages					
1. Seed purchases		Yearly			
2. Fertilizer cost		Yearly			
3. Pesticide cost		Yearly			
4. Manure purchases		Yearly			
5. Hired machinery		Yearly			
6. Farm electricity/ fuel cost		Bimonthly			
7. Causal labor payment		Yearly			
8. Payment to RFS		Monthly			
9. Land taxes		Yearly			
10.					

* Increased/decreased/No change.

Module VI: Impact Of Government Welfare Programs

1. Has any member of your household benefited from the following Government programs since 1985?

Program	Yes/ No	Year	Approximate amount benefited (Rs)
1. Land distribution (allotment of land)			
2. Housing scheme (allotment of house)			
3. Subsidized toilet construction (health scheme)			
4. Subsidy on construction of house			
5. Family planning			
6. IRDP (self-employment scheme)			
7. NREP (other employment schemes)			
8. Watershed management program			
9. Subsidy for digging wells and borewells			
10. Drought relief program			
11. Crop insurance			
12. Agriculture input subsidy (seed, fertilizer and pesticides)			
13. Cheyutha camps (welfare for disabled persons)			
14. Adarana (subsidized supply of implements to artisans)			
15. Support for bonded and child laborers			

16. Jatiya Prasuthi Sahaya (Rs 1000 given to pregnant women to take nutritional food before and after delivery)			
17. Anganwadi program (improvement of nutrition and health of young children, pregnant women, lactating mothers and adolescent girls			
18. Subsidy on bullocks, milch animals, sheep and goats, etc			
19. Subsidy on purchase of agriculture machinery			
20. National family benefit scheme (sudden death of earner)			
21. Deepam (cooking gas connections)			
22. Scholarships and economic assistance			
23. Others			

2. Has any member of your household benefited from the following Government programs during 2001/02?

Program	Yes/No	Approximate amount benefited (Rs)
1. Public Distribution System (PDS)		
2. Annapurna (supply of 10 kg of rice free of cost)		
3. Food for work		
4. Free health camps for people (TB, malaria, etc)		
5. Free veterinary camps (free medicines for livestock)		
6. Old age pension		
7. Widow pension		
8. Pension for the physically handicapped		
9. Employment guarantee scheme (EGS)		
10. Women self-help groups (SHGs/DWACRA)		
11. Others		

Module VII: Coping Mechanisms

7.1. Have you experienced any severe drought that affected crop production since 1985? **Yes/No**

7.2. If the answer is yes, please mention the years when there was a shortfall of income because of a crop failure due to severe drought.

Years   % shortfall in income

(a) _____   _____

(b) _____   _____

(c) _____   _____

(d) _____   _____

7.3. Did you adopt any coping mechanisms when there was a shortfall of income due to crop failure because of a severe and prolonged drought or due to pests and diseases? **Yes/No**

If yes, please rank the coping mechanisms in the order of importance

Coping mechanisms (if the problem is for one year)	Coping mechanisms (if there is persistent drought for more than one year)
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

Module VIII: Major Sources of Household Income during 2001/2002

Sources	Gross income (Rs)	Expenditure (Rs)	Net income (Rs)
1. Agriculture			
2. Farm work (labor earnings)			
3. Non-farm work (labor earnings)			
4. Regular Farm Servant (RFS)			
5. Out-migration			
6. Remittances			
7. Livestock (sale of milk and milk products)			
8. Income from hiring out bullocks			
9. Income from selling meat and wool (goats, sheep, pigs and poultry, etc)			
10. Caste occupation (specify)			
11. Business (specify)			
12. Rental income (tractor, auto and sprayer, etc)			
13. Regular salaried jobs (Government/private)			
14. Stitching clothes (tailoring)			
15. Handicrafts (specify)			
16. Rent from leased out land, building, etc			
17. Interest on savings and earnings from money lending			
18. Selling Common property resources (firewood, fruits, stones, mats and leaf plates)			
19. Others (specify) _____			
20.			

Module IX: Others

1. What are the major production constraints in your dry land field (rank in order of importance)?

Crops	Drought	Pests	Disease	Weed	Poor soil	Too much rain	Poor seed	Others	Specify pests	Specify diseases
Sorghum										
Millets										
Maize										
Groundnut										
Pigeonpea										
Chickpea										
Castor										
Cotton										
Sunflower										

2. Source of information on dry land agriculture (rank in order of importance)

Farm practices	Progressive farmers	Extension personnel	Shop-keeper	Krishi Vigyan Kendras	Relatives and friends	TV/ radio/ newspaper	Others
3. Use of improved/HYV seeds							
2. Use chemical fertilizers							
3. Adoption of crop rotation							
4. Adoption of soil conservation practices							
5. Adoption of herbicides							
6. Pest control measures							
Type of pesticide							
Quantity to use							
Mixing of chemicals							
When to apply							

3. Production and utilization of crops during 2001/2002.

Crops	Output (kg)	Output utilization (kg)								Byproduct (Qtl)		
		Consumption	Retained for own seed	Other uses	Sold					Own use	Sold	Price
					Seed	Price (kg)	Grain	Price (kg)				

Module X: Livestock Economics

1. Maintenance and returns from livestock during 2001/2002.

Type		Livestock						
		Draft animals	Cows	Buffaloes	Young stock	Sheep and goats	Poultry	Others
Rainy season (from 01-06-2001 to 30-09-2001)								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder	Type							
	Quantity (qt/kg)							
	Price							

Grazing	% Share in total fodder requirement							
	Value (Rs)							
Concen-trates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor cost	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Death							
	Value (Rs)							
	Birth							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (Qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no.)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in the farm							
	Selling animals							
Winter season (from 01-10-2001 to 31-01-2002)								
Number of livestock								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							

Green fodder	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% Share in total fodder requirement							
	Value (Rs)							
Concen-trates and grain feed	Type							
	Quantity (qt/kg)							
	Price							
Labor cost	Grazing (Rs)							
	Others* (Rs)							
Other cost	Medicines (Rs)							
	Transport (Rs)							
	Ropes,veterinary (Rs)							
Changes	Death							
	Value (Rs)							
	Birth							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (Qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in the farm							
	Selling animals							
Summer season (from 01-02-2002 to 31-05-2002)								
Number of livestock								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							

Green fodder	Type								
	Quantity (qt/kg)								
	Price								
Grazing	% Share in total fodder requirement								
	Value (Rs)								
Concen-trates and grain feed	Type								
	Quantity (qt/kg)								
	Price								
Labor cost	Grazing (Rs)								
	Others (Rs)								
Other cost	Medicines (Rs)								
	Transport (Rs)								
	Ropes, veterinary (Rs)								
Changes	Death								
	Value (Rs)								
	Birth								
Production and income	Milk (L)								
	Price (Rs/L)								
	Dung (Qt)								
	Price (Rs/qt)								
	Wool/Eggs (kg/no)								
	Price (Rs/kg/no.)								
	Hire income (Rs)								
	Days worked in his farm								
	Selling animals								

* Fodder collection, feeding, washing, tying, milking, cleaning cattle shed, etc

Note: **This module was used for collecting crop-wise input-output data for the annual surveys carried out in 2001/02, 2002/03 and 2003/04 and the biannual survey in 2004/05.**

Module XI: Input-Output Information

Name of the farmer:_____ Village: _____

Crop: _____ Variety:_____ Area: ____ Row arrangement/proportion: _____

Season: Rainy/postrainy/summer Operations			Labor use[1]		Input/output		
		Unit[3]	Quantity	Wages	Quantity	Unit price	Remarks
1A. Land preparation (plowing - primary and secondary tillage)	M	D					
	F	D					
	B	D					
	T	HR					
1B. Seedbed preparation (BBF/NBF/FLAT)	M	D					
	F	D					
	B	D					
	T	HR					
2. FYM/compost/sheep penning/tank silt application	M	D					
	F	D					
	B	D					
	T	HR					
FYM/compost		QT					
Animal penning		NO					
Date of sowing							
3. Planting/sowing	M	D					
	F	D					
	B	D					

Season: Rainy/postrainy/summer Operations			Labor use[1]			Input/output		
		Unit[3]	Quantity	Wages	Quantity	Unit price	Remarks
4A. Seed: Crop1		KG					
Crop2		KG					
Crop3		KG					
4B. Seed treatment	M	D					
	F	D					
-----------------		KG					
-----------------		KG					
5A. Fertilizer application	M	D					
	F	D					
------------------------		KG					
------------------------		KG					
------------------------		KG					
------------------------		KG					
------------------------		KG					
5B. Micronutrient application	M	D					
	F	D					
---------------------		KG					
---------------------		KG					
---------------------		KG					
6. Interculture	M	D					
	F	D					
	B	D					
7. Weeding/weedicide Application	M	D					
	F	D					
	SP	HR					
------------------------		LT					
------------------------		LT					

Season: Rainy/postrainy/summer Operations			Labor use[1]		Input/output		
		Unit[3]	Quantity	Wages	Quantity	Unit price	Remarks
8. Plant protection: spraying/ dusting/shaking plants/hand-picking pests)	M	D					
	F	D					
	B	D					
	SP	HR					
	DU	HR					

---------------------							
9. Irrigation	M	D					
	F	D					
		HR					
Source of Irrigation							
10. Watching (birds, pigs etc,)	M	D					
	F	D					
11. Harvesting[2]	M	D					
Crop 1	F	D					
Crop 2	M	D					
	F	D					
Crop 3	M	D					
	F	D					
12. Threshing	M	D					
Crop 1	F	D					
	B	D					
	TH	HR					
Crop 2	M	D					

Season: Rainy/postrainy/summer Operations			Labor use[1]		Input/output		
		Unit[3]	Quantity	Wages	Quantity	Unit price	Remarks
Crop 3	F	D					
	B	D					
	TH	HR					
	M	D					
	F	D					
	B	D					
	TH	HR					
13. Marketing (including transport, storage and labor charges)	M	D					
	F	D					
	B	D					
	T	HR					
14. Fixed costs: Land Rent Cash		RS					
Kind		KG					
Land tax							
15. Grain yield: Crop1		KG					
Crop 2		KG					
Crop 3		KG					
		KG					
		KG					
16. Fodder yield: Crop 1		QT					
Crop 2		QT					
Crop 3		QT					
		QT					
		QT					

Season: Rainy/postrainy/summer			Labor use[1]			Input/output		
Operations								
		Unit[3]	Quantity	Wages	Quantity	Unit price	Remarks	
17. Stalk: ----------------		QT						
----------------		QT						

[1.] Labor input includes total labor days put in by family and hired labor for each operation.

[2.] Estimate the labor requirement if you had entrusted harvesting to contractor

[3.] Clearly specify the units (eg- 5 kg, FYM - 2 qts, etc).
D = Days, HR = Hours, KG = Kilogram, QT = Quintals, LT = Liters and RS = Rupees.
M = Male labor, F = Female labor, B = Bullock labor.
T = Tractor/Truck, TH = Thresher, SP = Sprayer, DU = Duster.
Note a: In irrigation operation use type of irrigation source (canal, tank, dug well, bore well, etc)
Note b: Cost of hiring tractors\bullocks includes cost of operator.
Note c: Ask/calculate land rent for particular crop only.

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Household Survey Questionnaire for ICAR-ICRISAT Village Level Studies (VLS) Project in India (2002/03)

Module I: General Information

1. Village information

1.1. Village: _____ 1.2. Mandal/Block: _____

1.3. District: _____ 1.4. State: _____

1.5. Nearest market town: _____ 1.6. Distance from village (km): _____

2. Household information

2.1. Name of the head: _____

2.2. Son/wife/daughter of: _____

2.3. Caste: _____

2.4. Old VLS H.H. No.: _____

2.5. New VLS H.H No.: _____

2.6. Present farm-size group: _____

2.7. Are you/anybody in your family a member of any elected or nominated body (specify details):

_____

3. Family composition (changes in the family due to births, deaths, marriages and family division):

Name	Status*	Relationship with head of household	Sex	Age	Education			Occupations		
					Years	Place**	Distance	1	2	3

* Birth = 1; Entered the family by marriage = 2; Rejoined the family = 3; Joined the family due to other reason = 4; Death = 5; Left the family due to marriage = 6; Left due to family division = 7; and left the family due to other reason = 8.

** Place at which the member last studied.

Module II: Landholding Details

1. Changes in operational landholding due to sale, purchase, lease and family division during 2002/03

Plot name	Area (acres)	Status[1]	Price (Rs/acre) if sold/ purchased/gifted	Whom	Reasons for buying/selling

[1.] Purchased = 1; Received as gift = 2; Sold = 3; Gifted out = 4; Family division = 5; Taken on lease/share basis = 6; Owned but leased/ shared-out = 7; Taken back from tenant to cultivate himself = 8; and Given back to land owner = 9.

2. Landholding in 2002/03 (area in acres)

Particulars	Dryland	Irrigable	Permanent fallow	Total area
Own land				
Leased/shared-in				
Leased/shared-out				
Operated area (own land + leased/shared-in – leased/shared-out area)				

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Module III: Cropping Pattern

1. Cropping pattern during 2002/2003 (area in acres)

Plot name (code/no.)	Owner-ship*	Crop	Row arrangemen/ Proportion	Name of the variety	Cropped area (acres)	Value (Rs / acre)	Season	Irrigated area (acres)	Main production (kg)	Price/kg	Byproduct (qt)	Price/qt

* Use codes: Own land (OW); Leased-in (LI); Leased-out (LO); Shared-in (SI); and Shared-out (SO).

Module IV: Household Resources

1. Livestock inventory of the household in 2002/03

Particulars	Number	Breed	Age (months)	Mode of acquisi-tion[1]	Year of purchase	Purchase price (Rs)	Source of finance	Present value (Rs)
1. Bullocks								
2. He-buffaloes								
3. She-buffaloes								
4. Cows								
5. Young stock								
6. Goats								
7. Sheep								
8. Pigs								
9. Camel								
10. Poultry								
11. Others (specify)								

1. On-farm rearing = 1; Purchase = 2; and Gift = 3.

2. Farm equipment of the household during 2002/03

Item	Number	Horse power	Year of purchase	Purchase price (Rs)	Source of finance	Present value (Rs)
1. Tractor						
2. Thresher						
3. Open dug wells:						
3.1. Electric						
3.2. Diesel						
4. Tube wells:						
4.1. Electric						
4.2. Diesel						
5. Seed drill						
6. Sprinkler set						
7. Drip irrigation						
8. Power sprayer/duster						
9. Modern plow						
10. Thresher						
11. Cane crusher						
12. Agro processing unit						
13. Rice/flour mill/grinding						
14. Truck/auto/trolley						
15. Bullock cart						
16. Other minor implements						
17. Others (specify)						

3. Farm building of the household during 2002/03

Item	Facilities	Value (Rs)
1. Residential house		
1.1. Type of house[1]		
1.2. Toilet	Yes/No	
1.3. Bathroom	Yes/No	
1.4. Electrified	Yes/No	
1.5. Tap water connection	Yes/No	
1.6. Drinking water well	Yes/No	
1.7. Cooking gas (LPG)	Yes/No	
1.8. Gobar gas plant	Yes/No	
1.9. Television (Black/White)	Yes/No	
1.9. Star connection (Cable TV)	Yes/No	
1.10. Fridge	Yes/No	
1.11. Telephone	Yes/No	
1.12. Others (specify)	Yes/No	

Item	Facilities	Value (Rs)
2. Farmhouse		
3. Residential plot		
4. Consumer durable		
4.1. Two-wheeler vehicle		
4.2. Gold and silver		
4.3. Furniture		
4.4. Household utensils		
4.5. Fan, radio, tape recorder, etc		
4.6. Others (specify)		
4.7.		

[1] Strong walls and RCC roof = 1; Strong walls and other type of roof = 2; Mud walls with thatched roof = 3; Mud walls with other roof = 4; and Others (Specify)_____ = 5.

4. Production and utilization of crop and livestock products during 2002/03.

Crops	Output (kg)	Output utilization (kg)								Byproduct (qtl)		
		Consump-tion	Retain for own seed	Other uses	Sold					Own use	Sold	Price
					Quantity (K/L)	Unit price	Place	Distance (km)	To whom[1]			
1. Crops												
2. Livestock products												
Milk (L)												
Butter (kg)												
Ghee (kg)												
Khoa (kg)												
Others (kg)												

[1] Village shop = 1; Primary market = 2; Secondary market = 3; Regulated market = 4; Others - 5 (Specify)--------------.

5. What is the position of your financial assets and liabilities during 2002/03?

Sources	Amount (Rs)	Purpose	Interest rate	Outstanding
I. Borrowings				
1.				
2.				
3.				
4.				
II. Lending				
1.				
2.				
III. Savings				
1. Banks				
2. Insurance policies (LIC etc)				
3. Share market				
4. Cooperative societies				
5. Chit funds				
6. Self-help groups (SHG)				
7. Others				

6. Annual household expenses from July 2002 to June 2003

Item	Average monthly amount spent (Rs)	Average yearly amount spent (Rs)
Recurring expenses		
1. Food		
1.1. Cereals		
1.2. Pulses		
1.3. Oils/butter/ghee		
1.4. Vegetables/mutton/chicken		
1.5. Milk and milk products		
1.6. Fruits		
1.7. Others		
2. Nonfood items		
2.1. Education		
2.2. Medical		
2.3. Clothing		
2.4. Travel		
2.5. Ceremonies and functions		
2.6. Marriage including dowry		
2.7. Payment for services		

2.8. Electricity, telephone, water, house repairs		
2.9. Others		
2.10		
Nonrecurring expenses		
1.		
2.		
3.		

Module V: Major Sources of Household Income During 2002/2003

Sources	Gross income (Rs)	Expenditure (Rs)	Net income (Rs)
1. Agriculture			
2. Farm work (labor earnings)			
3. Non-farm work (labor earnings)			
4. Regular Farm Servant (RFS)			
5. Out-migration			
6. Remittances			
7. Livestock (sale of milk and milk products)			
8. Income from hiring out bullocks			
9. Income from selling meat and wool (goat, sheep, pigs, poultry, etc)			
10. Caste occupation (specify)			
11. Business (specify)			
12. Rental income (tractor, autorickshaw sprayer, etc)			
13. Regular salaried jobs (Government/private)			
14. Tailoring			
15. Handicrafts (specify)			
16. Rent from leased-out land, building, etc			
17. Interest on savings and from money lending			
18. Selling CPRs (firewood, fruits, stones, mats and leaf plates)			
19. Others (specify) Dowry received (both cash and kind)			
20. Selling of water for agriculture purposes			
21. Others			

Module VI: Impact of Development/Welfare Programs during 2002/03

Name of the program	Yes/No	Approximate amount (Rs)
1. Jawahar Gram Samriddhi Yojana		
2. Swarnajayanti Gram Swarozgar Yojana		
3. Rajiv Gandhi National Drinking Water Mission		
4. Indira/Samagra Awas Yojana		
5. Centrally sponsored rural sanitation program		
6. Drought-Prone Areas Programme		
7. Desert development program		
8. Wasteland development		
9. Employment guarantee scheme		
10. Food for Work		
11. Targeted public distribution system		
12. National project on biogas development		
13. Integrated Rural Development Programme		
14. Integrated rural energy program		
15. Integrated cattle development program		
16. Integrated dairy development program		
17. Integrated mother and child development program		
18. Soil and water conservation program		
19. Fish farmers development program		
20. Watershed management project		
21. Operation Flood		
22. Universal immunization program		
23. Old age pensions		
24. Pension for the physically handicapped		
25. Widows' pension		
26. Drought relief program		
27. Crop insurance		
28. Agriculture input subsidy/crop production program		
29. Deepam (subsidized LPG gas connections)		
30. Land distribution		
31. Allotment of house/subsidy on construction		
32. Family planning		
33. Supply of implements to artisans		
34. National family benefit scheme (sudden death of earner)		
35. Scholarships and economic assistance		
36. Subsidy on purchase of agricultural machinery		
37. Support for bonded and child laborers		
38. Mid-day meal scheme		
39. Others		
40.		
41.		

Module VII: Livestock Economics

1. Maintenance of and returns from livestock during 2002/2003

Rainy (kharif) season (01-06-2002 to 30-09-2002)		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Type								
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concen- trates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in own farm							
	No. of animals sold							
	Amount (Rs)							

Winter (rabi) season (01-10-2002 to 31-01-2003)		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goat	Poultry	Others
Type								
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concen- trates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in own farm							
	No. of animals sold							
	Amount (Rs)							

Summer season (01-02-2003 to 31-05-2003)		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Type								
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concen-trates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in own farm							
	No. of animals sold							
	Amount (Rs)							

2 (a) % of dung used as manure _____ ; (b) Firewood _____ ; (c) House and courtyard maintenance _____ ;
(d) Others (specify) _____ .

Module VIII: Socioeconomic, Agrobiological and Institutional Aspects

1. How do you consider the climatic conditions (rainfall) during 2002/03 cropping year?

    (a) Good

    (b) Normal

    (c) Bad

    (d) Very bad

2. What is your opinion about the rainfall pattern during 2002/03 cropping year?

Characteristics	Observations
1. Quantum of rainfall	
2. Distribution of rainfall	
3. Number of rainy days	
4. Outlier events	
5. Arrival of monsoons	
6. Availability of water in resources (tank, well etc.)	
7. Temperature (winter)	
8. Temperature (summer)	

3. Did you or your family members try to dig open dug wells or bore wells during 2002/03? Yes/No

    If the answer is yes, please answer the following questions:

Type	Number of attempts	Depth (ft) of each attempt	Successful attempts	Presently in use	Total amount (Rs) spent including failed attempts
1. Open dug wells					
2. Bore wells					
3. In-well bores					
4. Deepening of wells					

4. What has been the situation in the village labor market during 2002/03?

Characteristics	Observations
1. Opportunities for farm work	
2. Opportunities for non-farm work	
3. Involuntary unemployment days	

5. What are the prevailing wage/rental rates for workers, bullocks and machinery in your village during 2002/03?

Type of work	Day/Month/ Year/Acre	Average working hours/day	Male	Female	Bullocks with operator	Tractor
Farm work						
Non-farm work						
Regular farm servant						
Others_____						

6. How many members of your family participated in the village labor market during 2002/03?

Name	Sex	Status*	Type of work	Employment days	Wage rate/day	Total earnings (Rs)	Involuntary unemployment days	Amount (Rs) received as advance

 * Daily wage earner, monthly worker and working as regular farm servant (RFS).

7. How many members of your family temporarily migrated during 2002/03?

Name	Sex	Place	Distance (km)	Type of work	Employ- ment days	Wage rate	Total (Rs)	Amount spent during stay (Rs)	Involuntary unemployment days	Amount received as advance (Rs)

8. How many members of your family participated in caste occupations during 2002/03?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/day	Approximate income received (Rs)

 * Toddy-tapping, toddy selling, carpentry, goldsmith, mason, washerman, barber, sheep rearing, butcher, pottery, basket-making, weaving, religious services, cobbler, etc.

9. How many members of your family participated in other self occupations during 2002/03?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/day	Approximate income received (Rs)

* Stitching clothes, vegetable selling, fruit selling, mechanic, running own autorickshaw, business, shop-keeping, money lending, financier, leaf-plate making and selling, mat weaving, regular jobs (part- and full-time).

Module IX: Coping Mechanisms

1. Have you adopted any coping mechanisms due to crop failure because of severe and prolonged drought or due to pest and diseases? Yes/No

If Yes, please describe: Rank

(a) _____   _____

(b) _____   _____

(c) _____   _____

(d) _____   _____

(e) _____   _____

Module X: Others

1. What were the major production constraints in your dry land field during 2002/03 (rank in order of importance)?

Crops	Drought	Pests	Diseases	Weeds	Poor soil	Too much rain	Poor seed	Others
Sorghum								
Millets								
Maize								
Groundnut								
Pigeonpea								
Chickpea								
Castor								
Cotton								
Sunflower								
Safflower								

2. Sources of information for dry land agriculture (rank in order of importance)

Decision	Progressive farmers	Extension personnel	Shop-keeper	Krishi Vigyan Kendra	Relatives and friends	TV/radio/ newspaper	Others
1. Use of improved/HYV seeds							
2. Use of chemical fertilizers							
3. Adoption of crop rotation							
4. Adoption of soil conservation practices							
5. Adoption of herbicides							
6. Pest control measures							
6.1. When to apply							
6.2. Type of pesticide							
6.3. Quantity to use							
6.4. Mixing of chemical							

Module XI: Water and Soil Conservation Measures

1. Plot characteristics and soil conservation practices adopted by the farmer in newly acquired plots and existing plots during 2002/03

Plot name and serial no.	Distance from home (km)	Distance from well/tank/pond (km)	Area (acres)	Irrigable area (acres)	Source of irrigation	Land tenure[1]	Soil type[2]	Soil depth[3]	Soil fertility[4]	Slope[5]	Soil degradation[6]	No. of trees	Value for acre (Rs)

1. 1 = Owned; 2 = Leased-out; 3 = Shared-out; 4 = Leased-in; and 5 = Shared-in.
2. 1 = Red soil; 2 = Sandy soil; 3 = Murram soil; 4 = Deep black; 5 = Medium black; 6 = Shallow soil; 7 = Sandy loam; 8 = Saline; and 9 = Alkaline.
3. 1 = Shallow (<0.5 m) ; 2 = Medium (0.6-1 m) ; 3 = Deep (1.1-1.5 m) ; and 4 = Very deep (>1.5 m).
4. 1 = Very poor; 2 = Poor; 3 = Good; and 4 = Very good.
5. 1 = Level (0-1%); 2 = Slight slope (1-3%); 3 = Medium slope (3-10%); and 4 = high slope (>10%).
6. 1 = No problem; 2 = Soil erosion; 3 = Nutrient depletion; 4 = Water logging; 5 = Salinity/alkalinity/acidity; and 6 = Others

2. Benefits perceived by the farmer in adopting soil conservation practices during 2002-03 in all plots (old and new)

Plot no.	Type of soil conservation measure[1]	Total cost[2] (Rs)	Farmer's share in total cost (%)	Cost of maintenance of structures per year	No. of years benefits expected	Benefits perceived by the farmer (%)[3]				Main reasons for increase/ not increasing benefits		Mitigation measures to counteract soil fertility decline[4]
						Increase in soil fertility	Control of soil erosion	Increased crop yield	Others	1	2	

[1]. Soil conservation measures: 0 = Did not adopt any measure; 1 = Land leveling; 2 = Field/boundary bunds; 3 = Contour bunds; 4 = BBF; 5 = Tree/grass plantation; 6 = Check dams; 7 = Water harvesting structures (farm pond, etc) ; and 8 = Others (specify) –––––––––––––.

[2]. Write zero if the soil conservation structures were constructed by the Government free of cost.

[3]. If the farmer perceived any benefits (use codes): 1 = Increased by 10%; 2 = Increased by 11%-25%; 3 = Increased by 26%-50%; 4 = Increased by 51%-75%; and 5 = Increased by more than 75%. If farmer did not perceive any benefits (use codes): 6 = No change; 7 = Fell by 10%; 8 = Fell by 11%-25%; 9 = Fell by 26%-50%; 10 = Fell by 51%-75%; and 11 = Fell by more than 75%.

[4]. Mitigation measure: 1 = Increased FYM use; 2 = Increased use of chemical fertilizer; 3 = Seasonal fallow; 4 = Soil and water conservation measures; 5 = Shift to new crops; and 6 = Others (specify) –––––––––––– .

Note: Repeat the same plot number with soil conservation code if a farmer had adopted different types of soil conservation practices in the same main plot.

3. Were the crops grown by you during 2002/03 covered by crop insurance? Yes/No

If the answer is yes

Crops	Area sown (acres)	Loan taken (Rs)	Premium paid (Rs)	Amount of coverage (Rs)	Indemnity received, if any (Rs)

4. Did you receive any Government help as a drought relief measure during 2002/03? Yes/No

If the answer is yes

Crops	Area (acres)	Form of support[1]	Amount benefited (Rs)

[1] Land revenue remission = 1; Support for purchase of seed for next crop season = 2; Rescheduling of loans = 3; Cash compensation = 4; and Interest waiver = 5.

Household Survey Questionnaire for ICAR-ICRISAT Village Level Studies (VLS) Project in India (2003/04)

Module I: General Information

1. Village information

1.1. Village: _____ 1.2. Mandal/Block: _____

1.3. District: _____ 1.4. State: _____

1.5. Market town: _____ 1.6. Distance from village (km): _____

2. Household information

2.1. Name of the head: _____

2.2. Son/wife/daughter of: _____

2.3. Caste: _____

2.4. Old VLS H.H. No.: _____

2.5. New VLS H.H No.: _____

2.6. Present farm-size group: _____

2.7. Are you/anybody in your family a member of any elected or nominated body (specify details):

_____

3. Family composition (changes in the family due to births, deaths, marriage and family division) in 2003-04):

Name	Status*	Relationship with head of household	Sex	Age	Education			Occupations	
					Years	Place**	Distance	Primary	Secondary

 * Birth = 1; Entered the family by marriage = 2; Rejoined the family = 3; Joined the family due to other reason = 4; Death = 5; Left the family due to marriage = 6; Left due to family division = 7; and Left the family due to other reasons = 7.

 ** Place at which last studied.

Module II: Landholding Details

1. Changes in the operational holding due to sale, purchase, lease and family division during 2003/04.

Plot name	Area (acres)	Status[1]	Price (Rs/acre) if sold/ purchased/gifted	Whom	Reasons for buying/ selling

[1.] Purchased = 1; Received as gift = 2; Sold = 3; Gifted out = 4; Family division = 5; Taken on lease/share basis = 6; Owned but leased/shared-out = 7; Taken back from tenant to cultivate himself – 8; and Given back to land owner = 9.

2. Landholding in 2003-04 (area in acres)

Particulars	Dry land	Irrigable	Permanent fallow	Total area
Own land				
Leased/shared-in				
Leased/shared-out				
Operated area (own land + leased/ shared-in – leased/shared-out area)				

Module III: Cropping Pattern

1. Cropping pattern during 2003/04 (area in acres).

Plot name (code/no.)	Ownership*	Area (acre)	Value (Rs/ acre)	Name of the crop	Row arrangement/ proportion	Name of the variety	Cropped area (acres)	Season	Irrigated area (acres)	Main production (kg)	Price/kg	Byproduct (qt)	Price/qt

* Use codes. Own land (OW), Leased-in (LI), Leased-out (LO), Shared-in (SI) and Shared-out (SO). Season codes: K = kharif, R = rabi, S = summer and P = perennial.

Module IV: Household Resources

1. Livestock inventory of the household in 2003/04.

Particulars	Number	Breed	Age months	Mode of acquisition[1]	Year of purchase	Purchase Price (Rs)	Source of finance	Present value (Rs)
1. Bullocks								
2. He-buffaloes								
3. She-buffaloes								
4. Cows								
5. Young stock								
6. Goats								
7. Sheep								
8. Pigs								
9. Camel								
10. Poultry								
11. Donkey								
12. Others (Specify)								
13.								

[1]. On-farm rearing = 1; Purchase = 2; and received as gift = 3.

2. Farm equipment of the household during 2003/04

Item	Number	Horsepower	Year of purchase	Purchase price (Rs)	Source of finance	Present value (Rs)
1. Tractor						
1.1.						
2. Thresher						
2.1.						
3. Open dug wells:						
3.1. Electric motor						
3.2. Diesel pump						
4. Tube wells:						
4.1. Electric motor						
4.2. Diesel pump						
5. Seed drill						
6. Sprinkler set						
7. Drip irrigation						
8. Power sprayer/duster						
9. Modern plow						
10. Manual sprayers/dusters						
11. Cane crusher						
12. Agro-processing unit						
13. Rice/flour mill/grinding						
14. Truck/autorickshaw/trolley						
15. Bullock cart						
16. Other minor implements						
17. Others (specify)						

3. Building of the household during 2003-04

Item	Facilities	Value (Rs)
1. Residential house		
1.1. Type of house[1]		
1.2. Toilet	Yes/No	
1.3. Bathroom	Yes/No	
1.4. Electrified	Yes/No	
1.5. Tap water connection	Yes/No	
1.6. Drinking water well	Yes/No	
1.7. Cooking gas (LPG)	Yes/No	

1.8. Gobar gas plant	Yes/No	
1.9. Television (BW/Color)	Yes/No	
1.9. Star connection (Cable tv)	Yes/No	
1.10. Fridge	Yes/No	
1.11. Telephone	Yes/No	
1.12. Others (specify)	Yes/No	
2. Farmhouse		
3. Residential plot		
4. Consumer durable		
4.1. Two wheeler (Motorcycle etc)		
4.2. Gold and silver		
4.3. Furniture		
4.4. Household utensils		
4.5. Fan, radio, tape recorder, etc		
4.6. Cycle		
4.7. CD player/Computer		
4.8. Others (specify)		

[1] Strong walls and RCC roof = 1; Strong walls and other type of roof = 2; Mud walls with thatched roof = 3; Mud walls with other roof = 4; and Others - 5 (specify) _____.

4. Production and utilization of crop and livestock products during 2003/04

Crops	Output (kg)	Output utilization (kg)									Byproduct (Qtl		
		Consump-tion	Retain for own seed	Other uses	Sold						Own use	Sold	Price
					Quantity (K/L)	Unit price	Place	Distance (km)	To whom[1]				
Paddy													
Kharif/rabi sorghum													
Maize													
Wheat													
Pigeonpea													
Chickpea													
Greengram													
Cotton													
Castor													
Soybean													
Sugarcane													

Pearl millet											
2. Livestock Products											
Milk (L)											
Ghee (kg)											
Wool (kg)											
Eggs (no.)											
FYM (Qt)											

[1.] Village shop = 1; Primary market = 2; Secondary market = 3; Regulated market = 4; and Others = 5 (specify).

5. What is the position of your financial assets and liabilities during 2003/04?

Sources	Amount (Rs)	Purpose	Interest rate	Outstanding
I. Borrowings				
1. Moneylender				
2. Nationalized banks				
3.Cooperative institutions				
4. Friends and relatives				
5. Finance companies				
6. Others				
II. Lending				
1. Villagers				
2.				
III. Savings				
1. Banks				
2. Insurance policies				
3. Share market				
4. Cooperative societies				
5. Chit funds				
6. Self-help Groups(SHG)				
7. Post office				

6. Annual household expenses on food and nonfood items during 2003/2004

Food items	Quantity required			
	Quantity kg/L	Day/Mon/Year	Unit price (Rs)	Total cost (Rs)
I. Cereals				
1. Sorghum				
2. Pearl millet				
3. Maize				
4. Wheat from PDS				
5. Wheat from other sources				
6. Rice from PDS				
7. Rice from other sources				
8. Others				
II. Pulses				
1. Pigeonpea				
2. Chickpea				
3. Greengram				
4. Blackgram				
5. Cowpea				
6. Matki/D. lablab (Minor pulses)				
7. Masur dal/Lentil				
8. Others				
III. Other food items				
1. All types of edible oils				
2. Milk				
3. Milk products (ghee, butter)				
4. Tea, coffee, sugar and jaggery		Monthly		
5. Meat, chicken, fish and eggs		Monthly		
6. All types of vegetables		Monthly		
7. Dry and green chillies		Monthly		
8. All spices		Monthly		
9. Onion, garlic, ginger		Monthly		
10. All fruits		Monthly		
11. Fast foods (sweets, groundnut, etc)		Monthly		
IV. Nonfood expenditure				
1. Toddy and wine		Monthly		
2. Pan, tobacco, beedi, cigar, etc		Monthly		
3. Cosmetics (hair oil, soaps, paste)		Monthly		
4. Clothing		Yearly		
5. Jewellery		Yearly		
6. Medical		Yearly		
7. Entertainment		Yearly		

8. Education		Yearly		
9. LPG, kerosene, etc		Yearly		
10. Furniture		Yearly		
11. Maintenance costs (TV, gas, vehicle, telephone, radio, etc)		Yearly		
12. Travel and ceremonial		Yearly		
13. Gifts		Yearly		
14. Payment of electricity, water, telephone, star (cable tv) , etc.		Yearly		
15. Payment for services (pot-maker, barber, carpenter, etc)		Yearly		
16. House improvement and tax		Yearly		
17. Marriage expenses		Yearly		
18. Dowry paid		Yearly		

Module V: Major Sources of Household Income During 2003/2004

Sources	Net income (Rs)
1. Agriculture	
2. Farm work (labor earnings)	
3. Non-farm work (labor earnings)	
4. Regular Farm Servant (RFS)	
5. Out-migration	
6. Remittances	
7. Livestock (sale of milk and milk products)	
8. Income from hiring out bullocks	
9. Income from selling sheep, goats, chicken, meat, eggs, wool, etc	
10. Caste occupation (specify)	
11. Business (specify)	
12. Rental income (tractor, autorickshaw, sprayer, truck, etc)	
13. Regular salaried jobs (Government/private)	
14. Tailoring	
15. Handicrafts (specify)	
16. Rent from leased-out land and building, etc	
17. Interest on savings and from money lending	
18. Selling CPR (firewood, fruits, stones, mats and leaf plates)	
19. Dowry received (both cash and kind)	
20. Gifts received (cash and kind)	
21. Selling of water for agriculture purposes	
22. Pension from employer	
22. Government welfare/development programs	
23. Others	
24.	

1. Are the crops grown by you during 2003/04 covered by crop insurance? Yes/No

If yes, please answer the following questions

Crop name	Area (acres)	Premium amount paid (Rs)	Amount received as crop insurance (Rs)

Module VI: Impact of Development/Welfare Programs during 2003/04

Name of the program	Yes/No	Approximate benefit (Rs)
1. Jawahar Gram Samriddhi Yojana		
2. Swarnajayanti Gram Swarozgar Yojana		
3. Rajiv Gandhi National Drinking Water Mission		
4. Indira/Samagra Awas Yojana		
5. Centrally sponsored rural sanitation program		
6. Drought-Prone Areas Programme		
7. Desert development programs		
8. Wasteland development		
9. Employment guarantee scheme		
10. Food for Work		
11. Targeted public distribution systems		
12. National project on biogas development		
13. Integrated Rural Development Programme		
14. Integrated rural energy program		
15. Integrated cattle development program		
16. Integrated dairy development program		
17. Integrated mother and child development program		
18. Soil and water conservation program		
19. Fish farmers development programs		
20. Watershed management project		
21. Operation Flood		
22. Universal immunization program		
23. Old-age pension		
24. Pension for the physically handicapped		
25. Widow pension		

26. Drought relief program		
27. Crop insurance		
28. Agriculture input subsidy/crop production program		
29. Deepam (subsidized LPG gas connections)		
30. Land distribution		
31. Allotment of house/subsidy on construction		
32. Family planning		
33. Supply of implements to artisans		
34. National family benefit scheme (sudden death of main earning member)		
35. Scholarships and economic assistance		
36. Subsidy on purchase of agricultural machinery		
37. Support for bonded and child laborers		
38. Mid-day meal scheme		
39. Livestock relief camp		
40. Subsidies on toilet/bathroom construction.		
41. Others		
42.		
43.		
44.		

Module VII: Livestock Economics

1. Maintenance and returns from livestock during 2003/04

Rainy (kharif) season (01-06-2003 to 30-09-2003)								
Type		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder/ grass	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							

		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Concentrates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked on own farm							
	No. of animals sold							
	Amount (Rs)							

Winter (rabi) season (01-10-2003 to 31-01-2004)

Type		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder/ grass	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concentrates and grain feed	Type							
	Quantity (kg)							
	Price							

Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/Eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked in own farm							
	No. of animals sold							
	Amount (Rs)							

Summer season (01-02-2004 to 31-05-2004)

Type		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goat	Poultry	Others
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder/ grass	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concentrates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							

Changes	Death								
	Value (Rs)								
	Birth								
Production and income	Milk (L)								
	Price (Rs/L)								
	Dung (qt)								
	Price (Rs/qt)								
	Wool/Eggs (kg/no)								
	Price (Rs/kg/no.)								
	Hire income (Rs)								
	Days worked in his own farm								
	No. of animals sold								
	Amount (Rs)								

[1.] (a) % of dung used as manure ＿＿＿＿＿＿ ; (b) Firewood ＿＿＿＿＿ ; (c) House and courtyard maintenance ＿＿＿＿＿ ;
(d)Others (specify) ＿＿＿＿＿.

Module VIII: Socioeconomic, Agrobiological And Institutional Aspects

1. How do you consider the climatic conditions (rainfall) during 2003-04 cropping year?

   (a) Good
   (b) Normal
   (c) Bad
   (d) Very bad

2. What is your opinion about the rainfall pattern during 2003/04 cropping year?

Characteristics	Observations
1. Quantum of rainfall	
2. Distribution of rainfall	
3. Number of rainy days	
4. Outlier events	
5. Arrival of monsoons	
6. Availability of water in resources (tank, wells, etc.)	
7. Temperature (winter)	
8. Temperature (summer)	

3. Did you or your family members try to dig open dug wells or bore wells during 2003/04? Yes/No

If the answer is yes, please answer the following questions:

Type	Number of attempts	Depth (ft) of each attempt	Successful attempts	Presently in use	Total amount (Rs) spent including failed attempts
1. Open dug wells					
2. Bore wells					
3. In-well bores					
4. Deepening of well					

4. What were the prevailing wage/rental rates for workers, bullocks and machinery in your village during 2003/04?

Type of work	Day/month/ year/acre	Average working hours/ day	Male	Female	Bullocks with operator	Tractor
Farm work						
Non-farm work						
Regular farm servant						
Others _____						

5. How many members of your family participated in the village labor market during 2003/04?

Name	Sex	Status*	Type of work	Employ-ment days	Wage rate (day)	Total earnings (Rs)	Involuntary unemployment days	Amount (Rs) received as advance

* Daily wage earner, monthly worker and working as regular farm servant (RFS).

6. How many members of your family temporarily migrated during 2003/04?

Name	Sex	Place	Distance (km)	Type of work	Employ-ment days	Wage rate/ day	Total (Rs)	Amount (Rs) spent during stay	Involuntary unemploy-ment days	Amount (Rs) received as advance

7. How many members of your family participated in caste occupations during 2003/04?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/day	Approximate income received (Rs)

* Toddy tapping, toddy selling, carpentry, goldsmith, mason, washerman, barber, sheep rearing, butcher, pottery, basket-making, weaving, religious services, cobbler, etc

8. How many members of your family participated in other self occupations during 2003/04?

Name	Sex	Type of occupation*	Days worked during the year	Working hours/day	Approximate income received (Rs)

* Stitching clothes, vegetable selling, fruit selling, mechanic, running own autorickshaw, business, shop keeping, money lending, financier, leaf-plate making and selling, mat-weaving, regular jobs (part- and full-time).

9. Did you adopt any coping mechanisms because of crop failure due to severe and prolonged drought or due to pests and diseases during 2003/04? Yes/No

If Yes, please describe: Rank

1. _____   _____

2. _____   _____

3. _____   _____

4. _____   _____

5. _____   _____

Module IX: Others

1. What are the major production constraints in your dry land field during 2003/04 (rank in order of importance)?

Crops	Drought	Pests	Diseases	Weeds	Poor soil	Excess rain	Poor seed	Others
Sorghum								
Millet								
Maize								
Groundnut								
Pigeonpea								
Chickpea								
Castor								
Cotton								
Sunflower								
Greengram								
Soybean								

2. Source of information on dry land agriculture (rank in order of importance) during 2003/04

Decision	Progressive farmers	Extension personnel	Shop-keeper	Krishi Vigyan Kendra	Relatives and friends	TV/radio/ newspaper	Others
1. Use of improved/HYV seeds							
2. Use of chemical fertilizers							
3. Adoption of crop rotation							
4. Soil conservation practices							
5. Prices of input/output							

6. Weather prediction						
7. Pest control measures:						
7.1. When to apply						
7.2. Type of pesticide						
7.3. Quantity to use						
7.4. Mixing of chemicals						

3. Benefits perceived by the farmer in adopting soil and water conservation (SWC) practices during 2003/04. (Only those plots where farmer adopted any type of SWC during 2003/04.)

Plot code and name	Type of SWC measure*	Total cost (Rs)	Farmer's share (%)	Benefit received**	Approximate amount (Rs)

*1 = Land leveling; 2 = Field/boundary bunds; 3 = Contour bunds; 4 = BBF; 5 = Trees/grass plantation; 6 = Check dam; 7 = Farm ponds; and 8 = Others (specify)------------------------.

**1 = Yield increased by 10%; 2 = Increased by 11%-25%; 3 = Increased by 26%-50%; 4 = Increased by 51%-75%; 5 = increased >75%; and 6 = No change.

Household Survey Questionnaire for ICAR-ICRISAT Village Level Studies (VLS) Project in India (2004/05) (General Endowment Schedule, Part-1)

Year _____ Village _____ Tehsil/Mandal _____

District _____ State _____ Country _____

Market town _____ Distance from village _____

Name of the head of household: _____

Son/wife/daughter of: _____

Caste: _____

New VLS household number: _____

Old VLS household number: _____

Present farm-size group: _____ Size of family (no.): _____

Main occupation: _____ Subsidiary occupation: _____

Are you or any member of your family a member of any elected or nominated body? **Yes/No**

If yes, specify: _____

Date of interview: _____ Name of the investigator: _____

A. Household details (2004/05)

Sr.No.	Name of the member	Sex	Age	Member ID	Spouse of		Child of		Marital status	Year of marriage	Education up to	Year of education termination
					Male ID	Female ID	Male ID	Female ID				

Household details (2004/05)

Sr. No.	Main occupation	Subsidiary occupation	Degree of disability[1]	Living with family/outside	If living outside			Remarks
					Place	Frequency of visits[2]	Purpose	

[1] Can do any farm or domestic work = 1; Can do only domestic work = 2; Can do only light farm work = 3; Can do only light domestic work = 4; and Completely disabled = 5.

[2] More than once a month = 1; Once a month = 2; More than once a year = 3; Once a year = 4; and Once in 2-3 years = 5.

B. Landholding details (as of July 1, 2004)

Sr. No.	Plot name	Plot code	Ownership status	Total area (acres)	Cultivable area (acres)	Irrigable area (acres)	Distance from house (km)	Soil type[1]	Value Rs/ acre	Location (outside/ inside village)	Bunding	Revenue (Rs)	Remarks

Note: In the ownership status column note the details of leased/shared-in/leased/shared-out and owned land. Write the name of the person from whom the land was taken or to whom it was given on a lease/share basis.

[1] Deep black = 1; Medium black = 2; Medium to shallow = 3; Deep red = 4; Shallow red = 5; Gravelly = 6; Problem soil = 7; and Others = 8.

C. Livestock inventory (as of July 1, 2004)

Particulars	Resource number	Breed	Age months	Mode of acquisition[1]	Year of purchase	Purchase price (Rs)	Source of finance	Present value (Rs)
1. Bullocks								
2. He-buffaloes								
3. She-buffaloes								
4. Cows								
5. Young stock								
6. Goats								
7. Sheep								
8. Pigs								
9. Camel								
10. Poultry								
11. Donkeys								
12. Others (specify)								

1. On-farm rearing = 1; Purchase = 2; and Received as gift = 3.

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D. Farm equipment owned by the household (as of July 1, 2004)

Item	Number	Horse-power	Year of purchase	Purchase price (Rs)	Source of finance	Present value (Rs)
1. Traditonal plough (Iron/ wooden)						
2. Modern plough						
3. Blade harrow						
4. Blade hoe						
5. Seed drill						
6. Sprinkler set						
7. Drip irrigation						
8. Manual sprayers/dusters						
9. Power sprayer/duster						
10. Chaff cutter						
11. Cane crusher						
12. Agroprocessing unit						
13. Rice/flour mill/grinding						
14. Tractor with accessories						
15. Autorickshaw						
16. Bullock cart						
17. Truck						
18. Other minor implements						
19. Thresher						
20. Others (specify)						
21. Electric motor						
22. Diesel pump						
23. Tube wells						
24. Pipeline (ft) (type)						
25. Harvester						
26. Other power-driven implements						

E. Building of the household (as of July 1, 2004)

Item	Facilities	Value (Rs)
1. Residential house		
1.1. Type of house[1]		
1.2. Toilet	Yes/No	
1.3. Bathroom	Yes/No	
1.4. Electrified	Yes/No	
1.5. Tap water connection	Yes/No	

1.6. Drinking water well	Yes/No	
1.7. Cooking gas (LPG)	Yes/No	
1.8. Television (BW/color)	Yes/No	
1.9. Star connection (Cable TV)	Yes/No	
1.10. Fridge/telephone	Yes/No	
1.12. Others (specify)	Yes/No	
2. Cattle shed		
3. Farmhouse		
4. Residential plots		
5. Consumer durables		
5.1. Two-wheeler (motorcycle, etc)		
5.2. Gold and silver		
5.3. Furniture		
5.4. Household utensils		
5.5. Fan, radio, tape recorder, etc		
5.6. Cycle		
5.7. CD player/computer		
5.8. Others (specify)		

1. Strong walls and RCC roof = 1; Strong walls and other type of roof = 2; Mud walls with thatched roof = 3; Mud walls with other roof = 4; and others = 5 (specify) ——————.

Debt and Credit Schedule

F. Financial assets and liabilities (as of July 1, 2004)

Agency/sources	Amount (Rs)	Purpose	Interest rate/ year	Remarks
I. Borrowings				
1. Cooperative banks				
2. Nationalized banks				
3. Friends and relatives				
4. Finance companies				
5. Employer				
6. Landlord				
7. Shopkeeper				
8. Moneylender				
9. Others				

II. Lendings				
1. Friends and relatives				
2. Tenants				
3. Others				
III. Savings				
1. National Bank				
2. Cooperative bank				
3. Insurance (LIC/PLI) policies				
4. Post office				
5. Self-help groups				
6. Chit funds				
7. Share market				
8. Others (GPF, etc)				

G. Benefits perceived by the farmer in adopting soil and water conservation (SWC) practices during 2004/05. (Only those plots where farmer had adopted any type of SWC during 2004/05 cropping season)

Plot name	Plot code	Type of SWC measure*	Total cost (Rs)	Farmer's share (%)	Benefits received**	Approximate amount (Rs)

*1 = Land leveling; 2 = Field/boundary bunds; 3 = Contour bunds; 4 = BBF; 5 = Trees/grass   plantation; 6 = Check dams; 7 = Farm ponds; and 8 = others.

**1 = Yield increased by 10%; 2 = Increased by 11%-25%; 3 = Increased by 26%-50%; 4 = Increased by   51%-75%, 5 = Increased >75%; and 6 = No change.

H. Impact of development/welfare programs

Name of the Program	Yes/No	Approximate benefit (Rs)
1. Jawahar Gram Samriddhi Yojana		
2. Swarnajayanti Gram Swarozgar Yojana		
3. Rajiv Gandhi National Drinking Water Mission		
4. Indira/Samagra Awas Yojana		
5. Centrally sponsored rural sanitation program		
6. Drought-Prone Areas Programme		
7. Desert development programs		
8. Wasteland development		
9. Employment guarantee scheme		
10. Food for Work		
11. Targeted public distribution systems		
12. National project on biogas development		
13. Integrated Rural Development Programme		
14. Integrated rural energy program		
15. Integrated cattle development program		
16. Integrated dairy development program		
17. Integrated mother and child development program		
18. Soil and water conservation program		
19. Fish farmers development programs		
20. Watershed management project		
21. Operation Flood		
22. Universal immunization program		
23. Old-age pensions		
24. Pensions for the physically handicapped		
25. Widows' pension		
26. Drought relief program		
27. Crop insurance		
28. Agriculture input subsidy/crop production programs		
29. Deepam (subsidized LPG gas connections)		
30. Land distribution		
31. Allotment of house/subsidy on construction		
32. Family planning		
33. Supply of implements to artisans		
34. National family benefit scheme (sudden death of earner)		
35. Scholarships and economic assistance		
36. Subsidy on purchase of agricultural machinery		
37. Support for bonded and child laborers		
38. Mid-day meal scheme		
39. Livestock relief camp		
40. Subsidies for toilet/bathroom construction		
41. Others		

Household Survey Questionnaire for ICAR-ICRISAT Village Level Studies (VLS) Project in India (Rainy Season, 2004/05) Part-2

Module I: Employment Schedule

Village: _____ District: _____ HH No. _____ Season: _____ Year: _____

1. Participation in the village labor market for wages during rainy season 2004/05

Name	Member D	Sex	Status*	Type of work**	Employment days	Wage rate/day	Total earnings (Rs)	Involuntary unemployment days

* Daily wage earner, monthly worker and working as regular farm servant (RFS).

** Farm work, government work such as employment guarantee scheme (EGS), Food for Work.

2. Family member participation in caste occupations during rainy season 2004/05

Name	Member ID	Sex	Type of occupation*	Days worked during season	Working hours/ day	Income received (Rs)

* Toddy-tapping and selling, carpentry, goldsmith, mason, washerman, barber, sheep rearing, butcher, pottery, cobbler, weaving, religious services, etc

3. Family member participation in other self occupations during rainy season 2004/05

Name	Member ID	Sex	Type of occupation*	Days worked during season	Working hours/day	Income received (Rs)

* Stitching clothes, vegetable and fruit selling, mechanic, running own autorickshaw, business, shop keeping, money lending, leaf-plate making and selling, regular jobs, etc

4. Temporary migration during rainy season 2004/05

Name	Mem ID	Sex	Place	Distance (km)	Type of work	Employment days	Wage rate	Total (Rs)	Amount (Rs) spent during stay	Involuntary unemployment days	Amount (Rs) received as advance

Module II: Cultivation Schedule

Cropping pattern during 2004/05 (area in acres)

Plot name (code/no.)	Ownership*	Cropped area (acres)	Irrigated area (acres)	Name of the Crop	Crop proportion	Name of the variety	Main production (kg)	Price/ kg	Byproduct (qt)	Price/qt	Remarks

* Use codes" Own land (OW); Leased-in (LI) ; Leased-out (LO) ; Shared-in (SI); and Shared-out (SO). Season codes: K = Kharif; R = Rabi; S = Summer; and P = Perennial.

Module III Production and Utilization

1. Production and utilization of crop and livestock products during rainy season of 2004/05

Crop/ livestock	Output (kg)	Output utilization (kg)			Sold					Byproduct (qt)		
		Consumption	Retained for own seed	Other uses	Quantity (kg/L)	Unit price	Place	Distance	To whom[1]	Own use	Sold	Price
1.Crop												
Paddy												
Sorghum												
Maize												
Pigeonpea												
Greengram												
Cotton												
Castor												
Soybean												
Blackgram												
Pearl millet												
Matki												
2.Livestock												
Milk (L)												
Ghee (kg)												
Wool (kg)												
Eggs (no.)												
FYM (qt)												

[1]. Village shop = 1; Primary market = 2; Secondary market = 3; Regulated market = 4; and Others = 5 (specify _____).

2. Major production constraints in your dryland field during rainy season of 2004/05 (rank in order of importance)

Crops	Drought	Diseases and pests	Poor seed	Poor soil	Excess rain	Weeds	Others 1	Others 2
1. Sorghum								
2. Groundnut								
3. Pigeonpea								
4. Soybean								
5. Sunflower								
6. Castor								
7. Millet								
8. Cotton								
9.								
10.								
11.								
12.								

Module IV: Socioeconomic, Agrobiological and Institutional Aspects

1. How do you consider the climatic conditions (rainfall) during the 2004/05 cropping year?

(a) Good
(b) Normal
(c) Bad
(d) Very bad

2. What is your opinion about the characteristics of rainfall during 2004/05 cropping year?

Characteristics	Observations
1. Quantum of rainfall	
2. Distribution of rainfall	
3. Number of rainy days	
4. Outlier events	
5. Arrival of monsoons	
6. Availability of water in resources (tanks, wells, etc.)	
7. Temperature (winter)	
8. Temperature (summer)	

3. Did you or your family members try to dig open dug wells or bore wells during the rainy season of 2004/05? Yes/No

If answer is Yes, please answer the following questions:

Type	Number of attempts	Depth (ft) of each attempt	Successful attempts	Presently in use	Total amount (Rs) spent including failed attempts
1. Open dug wells					
2. Bore wells					
3. In-well bores					
4. Deepening of wells					

4. What were the prevailing wage/rental rates for workers, bullocks and machinery in the village during the rainy season of 2004/05?

Type of work	Day/month/ year/acre	Average working hours/day	Male	Female	Bullocks with operator	Tractor
Farm work						
Non-farm work						
Regular farm servant						
Others						

5. Sources of information on dry land agriculture during the rainy season of 2004/05 (please rank the sources in order of importance)

Decision	Progressive farmers	Extension personnel	Shop-keeper	Krishi Vigyan Kendra	Relatives and friends	TV/radio News paper	Others
1. Use of HYV/improved seeds							
2. Use of chemical fertilizer							
3. Adoption of crop rotation							
4. Soil conservation practices							
5. Prices of input/output							
6. Weather predictions							
7. Pest control measures							
7.1 When to apply							
7.2 Type of pesticides							
7.3 Quantity to use							
7.4 Mixing of chemicals							

Module V: Livestock Economics

1. Maintenance and returns from livestock during 2004/05

Rainy season (01-07-2004 to 31-12-2004)		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Type								
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder/ grass	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% share in total fodder requirement							
	Value (Rs)							
Concentrates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/eggs (kg/no)							
	Price (Rs/kg/no.							
	Hire income (Rs)							
	Days worked on own farm							
	No. of animals sold							
	Amount (Rs)							

Module VI: Major Sources of Household Income during Rainy Season of 2004/2005

Sources	Net income (Rs)
1. Agriculture	
2. Farm work (labor earnings)	
3. Non-farm work (labor earnings)	
4. Regular Farm Servant (RFS)	
5. Out-migration	
6. Remittances and gifts received (cash and kind)	
7. Livestock (sale of milk and milk products)	
8. Income from hiring out bullocks	
9. Income from selling animal and animal products	
10. Caste occupation (specify)	
11. Business (specify)	
12. Rental income (tractor, autorickshaw, sprayer, truck, etc)	
13. Regular salaried jobs (Government/private)	
14. Tailoring	
15. Selling CPR (firewood, fruits, stones, mats and leaf plates), handicrafts (specify)	
16. Rent from leased-out land and building, etc	
17. Interest on savings and from money lending	
22. Government welfare/development programs	
19. Dowry received (both cash and kind)	
20. Selling of water for agriculture purposes	
21. Pension from employer	
22. Others	

Module VII: Crop Insurance

1. Were any crops grown by you during the rainy season of 2004/05 covered by crop insurance? Yes/No

If yes,

Crop name	Area (acres)	Premium paid (Rs)*	Amount received as crop insurance

* Write only the crop insurance premium paid for crop in total.

Module VIII: Household Transaction Schedule

1. Household expenses on food and nonfood items during the rainy season of 2004/05

Food items	Reference period	Quantity consumed and its value		
	Day/mon/ season	Quantity (Kg/L)	Unit price	Total cost (Rs)
I. CEREALS				
1. Sorghum				
2. Pearl millet				
3. Maize				
4. Wheat				
5. Rice				
6. Other cereals				
II. PULSES				
1. Pigeonpea				
2. Chickpea				
3. Greengram				
4. Blackgram				
5. Cowpea				
6. Matki/D.lablab (Minor pulses)				
7. Masur dal/Lentil				
8. Soybean				
9. Other pulses				
III. Other food items				
1. Groundnut, sesamum, etc				
2. Other provisions				
3. All spices (salt, pepper, etc)				
4. Sweets, *khara*, biscuits, etc				
5. Tea, coffee, sugar, jaggery (gur), etc				
6. Milk				
7. Ghee, butter, curd, etc				
8. All types of edible oils and Dalda				
9. Meat/fish/chicken/eggs				
10. All vegetables (including chilli, onion, garlic, etc)				
11. All fresh fruits				
12. Dry fruits (coconut, raisins, cashewnut, etc)				
13. Other food items				

IV. Nonfood expenditure				
1. Pan, tobacco, beedi, cigar, etc				
2. Wine, toddy and marijuana (ganja)				
3. Hotel expenses				
4. LPG/kerosene/firewood/match box, etc				
5. All types of cosmetics (hair oil, soaps, toothpaste, detergent, etc)				
6. Medical expenses				
V. Consumer durables				
1. Clothing (including tailoring)				
2. Household utensils purchased				
3. Jewellery purchased				
4. Furniture				
5. Watch, radio, fan, etc				
6. Maintenance cost (TV/vehicle/ telephone, etc)				
7. Payment of electricity, water, star connection (cable tv), telephone bills				
8. House tax and improvements				
9. Payments made for services like barber, washerman, maidservant, potter, etc)				
10. Travel and entertainment expenses				
11. Ceremonial expenses including puja				
12. Marriage expenses				
13. Dowry paid				
14. Gifts paid				
15. Education expenses including fees, donations, etc				
16. Other miscellaneous expenses				
17. Gambling/Matka expenses				
18. Footwear expenses				
19.				
20.				
VI. Other purchases				
1. Land				
2. Livestock				
3. Farm implements & machinery repairs				
4. Decorative articles				
5. Stationery, stamps, post, court expenses, etc				

Module IX: Coping Mechanisms

1. Did you adopt any coping mechanisms when crops failed because of severe drought or any other reason during the rainy season of 2004/05? Yes/No

If Yes, please mention them: Rank

(a) _____   _____

(b) _____   _____

(c) _____   _____

(d) _____   _____

(e) _____   _____

Household Survey Questionnaire for ICAR-ICRISAT Village Level Studies (VLS) Project in India (Post Rainy Season, 2004/05) Part-2

Module I: Employment Schedule

Village: _____ District: _____ HH No. _____ Season: _____ Year: _____

1. Family member participation in the village labor market for wages during the post rainy season of 2004/05

Name and member ID	Sex	Status*	Type of work**	Employment days	Wage rate/day	Total earnings (Rs)	Involuntary unemployment days

* Daily wage earner, monthly worker and working as RFS.

** Farm work, Government work such as employment guarantee scheme (EGS), Food for Work.

2. Family member participation in caste occupations during the post rainy season, 2004/05

Name and member ID	Sex	Type of occupation*	Days worked during the season	Working hours/ day	Income received (Rs)

* Toddy-tapping and selling, carpentry, goldsmith, mason, washerman, barber, sheep rearing, butcher, pottery, cobbler, weaving, religious services, etc

3. Family member participation in other self occupations during post rainy season, 2004/05

Name and member ID	Sex	Type of occupation*	Days worked during the season	Working hours/day	Income received (Rs)

* Stitching clothes, vegetable and fruit selling, mechanic, running own autorickshaw, business, shop keeping, money lending, leaf-plate making and selling, regular jobs, etc

4. Temporary migration during post rainy season, 2004/05

Name and member ID	Sex	Place	Distance (km)	Type of work	Employment days	Wage rate	Total (Rs)	Amount spent during stay (Rs)	Involuntary unemployment days	Amount received as advance (Rs)

Module II: Cultivation Schedule

Cropping pattern during post rainy season, 2004/05 (area in acres).

Plot name (code/no.)	Owner-ship*	Cropped area (acres)	Irrigated area (acres)	Name of the crop	Crop proportion	Name of the variety	Main production (kg)	Price/kg	Byproduct (qt)	Price/qt	Remarks

* Use codes: Own land (OW); Leased-in (LI) ; Leased-out (LO) ; Shared-in (SI) ; and Shared-out (SO). Season codes: K = Kharif; R = Rabi; S = Summer; and P = Perennial.

Module III: Production and Utilization

1. Production and utilization of crop and livestock products during post rainy season,2004/05.

Crops	Output (kg)	Output utilization (kg)								Byproduct (qt)		
		Consump-tion	Retain for own seed	Other uses	Sold					Own use	Sold	Price
					Quantity (kg/L)	Unit price	Place	Distance	To whom[1]			
1. Crops												
Paddy												
Sorghum												
Maize												
Pigeonpea												
Greengram												
Cotton												
Castor												
Soybean												
Blackgram												
Pearl millet												
Matki												
2. Livestock												
Milk (L)												
Ghee (kg)												
Wool (kg)												
Eggs (no.)												
FYM (qt)												

[1] Village shop = 1; Primary market = 2; Secondary market = 3; Regulated market = 4; and Others = 5 (specify) _____ .

2. Major production constraints in your dry land field during the post rainy season of 2004/05 (rank in order of importance)

Crops	Drought	Diseases and pests	Poor seed	Poor soil	Excess rain	Weeds	Others	
							1	2
1. Sorghum								
2. Groundnut								
3. Pigeonpea								
4. Soybean								
5. Sunflower								
6. Castor								
7. Millet								
8. Cotton								
9.								
10.								
11.								

Module IV: Socioeconomic, Agrobiological and Institutional Aspects

1. Did you or your family members try to dig open dug wells or bore wells during the post rainy season of 2004/05? Yes/No

If answer is yes, please answer the following questions:

Type	Number of attempts	Depth (ft) of each attempt	Successful attempts	Presently in use	Total amount (Rs) spent including failed attempts
1. Open dug wells					
2. Bore wells					
3. In-well bores					
4. Deepening of wells					

2. What are the prevailing wage/rental rates for workers, bullocks and machinery in the village during post rainy season of 2004/05?

Type of work	Day/month/ year/acre	Average working hours /day	Male	Female	Bullocks with operator	Tractor
Farm work						
Non-farm work						
Regular farm servant						
Others						

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Module V: Livestock Economics

1. Maintenance and returns from livestock during the post rainy season,2004/05

Postrainy season (1-1-2005 to 30-6-2005)		Draft animals	Cows	Buffaloes	Young stock	Sheep/ goats	Poultry	Others
Type								
Number								
Dry fodder	Type 1							
	Quantity (qt/kg)							
	Price							
Dry fodder	Type 2							
	Quantity (qt/kg)							
	Price							
Green fodder/ grass	Type							
	Quantity (qt/kg)							
	Price							
Grazing	% Share in total fodder requirement							
	Value (Rs)							
Concentrates and grain feed	Type							
	Quantity (kg)							
	Price							
Labor costs	Grazing (Rs)							
	Others (Rs)							
Other costs	Medicines (Rs)							
	Transport (Rs)							
	Ropes, veterinary (Rs)							
Changes	Deaths							
	Value (Rs)							
	Births							
Production and income	Milk (L)							
	Price (Rs/L)							
	Dung (qt)							
	Price (Rs/qt)							
	Wool/eggs (kg/no)							
	Price (Rs/kg/no.)							
	Hire income (Rs)							
	Days worked on own farm							
	No. of animals sold							
	Amount (Rs)							

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Module VI: Major Sources of Household Income during Post Rainy Season of 2004/2005

Sources	Net income (Rs)
1. Agriculture	
2. Farm work (labor earnings)	
3. Non-farm work (labor earnings)	
4. Regular Farm Servant (RFS)	
5. Out-migration	
6. Remittances and gifts received (cash and kind)	
7. Livestock (sale of milk and milk products)	
8. Income from hiring out bullocks	
9. Income from selling animal and animal products	
10. Caste occupation (specify)	
11. Business (specify)	
12. Rental income (tractor, autorickshaw, sprayer, truck, etc)	
13. Regular salaried jobs (Government/private)	
14. Tailoring	
15. Selling common property resource (CPR-firewood, fruits, stones, mats and leaf plates), handicrafts (specify _____)	
16. Rent from leased-out land, building, etc	
17. Interest on savings and from money lending	
18. Government welfare/development programs	
19. Dowry received (cash and kind)	
20. Selling of water for agriculture purposes	
21. Pension from employer	
22. Others	

Module VII: Crop Insurance

1. Were any crops grown by you during the post rainy season of 2004/05 covered by crop insurance? Yes/No

If yes,

Crop name	Area (acres)	Premium paid (Rs)*	Amount received as crop insurance (Rs)

* Write only the total crop insurance premium paid in total.

Module VIII: Household Transaction Schedule

Household expenses on food and nonfood items during the post rainy season 2004/05

Food items	Reference period	Quantity consumed and its value		
	Day/mon/ season	Quantity (Kg/Lt)	Unit price	Total cost (Rs)
I. CEREALS				
1. Sorghum				
2. Pearl millet				
3. Maize				
4. Wheat				
5. Rice				
6. Other cereals				
II. PULSES				
1. Pigeonpea				
2. Chickpea				
3. Greengram				
4. Blackgram				
5. Cowpea				
6. Matki/*D. lablab* (Minor pulses)				
7. Masur dal/Lentil				
8. Soybean				
9. Other pulses				
III. Other food items				
1. Groundnut, sesamum, etc				
2. Other provisions				
3. All spices (salt, pepper, etc)				
4. Sweets, khara, biscuits, etc				
5. Tea, coffee, sugar, jaggery (gur), etc				
6. Milk				
7. Ghee, butter, curd, etc				
8. All types of edible oils and Dalda				
9. Meat/fish/chicken/eggs				
10. All vegetables (including chilli, onion, garlic, etc)				
11. All fresh fruits				
12. Dry fruits (coconut, raisins, cashewnut, etc)				
13. Other food items				

IV. Nonfood expenditure				
1. Pan, tobacco, beedi, cigar, etc				
2. Wine, toddy and marijuana (ganja)				
3. Hotel expenses				
4. LPG/kerosene/firewood/ match box, etc				
5. All types of cosmetics (hair oil, soaps, toothpaste, detergent, etc)				
6. Medical expenses				
V. Consumer durables				
1. Clothing (including tailoring)				
2. Household utensils purchased				
3. Jewellery purchased				
4. Furniture				
5. Watch, radio, fan, etc				
6. Maintenance cost (TV/vehicle/telephone, etc)				
7. Payment for electricity, water, star connection (cable tv), telephone bills				
8. House tax and improvements				
9. Payments for services like barber, washerman, maidservant, potter, etc)				
10. Travel and entertainment expenses				
11. Ceremonial expenses (including puja)				
12. Marriage expenses				
13. Dowry paid				
14. Gifts paid				
15. Education expenses (including fees, donations, etc)				
16. Other miscellaneous expenses				
17. Gambling/Matka expenses				
18. Footwear expenses				
19.				
20.				
VI. Other purchases				
1. Land				
2. Livestock				
3. Farm implements & machinery repairs				
4. Decorative articles				
5. Stationery items, stamps, post, court expenses, etc				

Module IX: Coping Mechanisms

Did you adopt any coping mechanisms when crops failed because of severe drought or any other reason during Post rainy season of 2004-05? Yes/No

If Yes, please mention them: Rank

(a) _____   _____

(b) _____   _____

(c) _____   _____

(d) _____   _____

(e) _____   _____

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