

Assigned by the Ministry of Agriculture, Forestry and Fisheries

**Report on the Survey of Rural Population
and Agricultural Development
in Asian Countries
– India –**

FEBRUARY 1985

**The Asian Population and Development
Association (foundation)**



E R R A T A

p. 95

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P. 97

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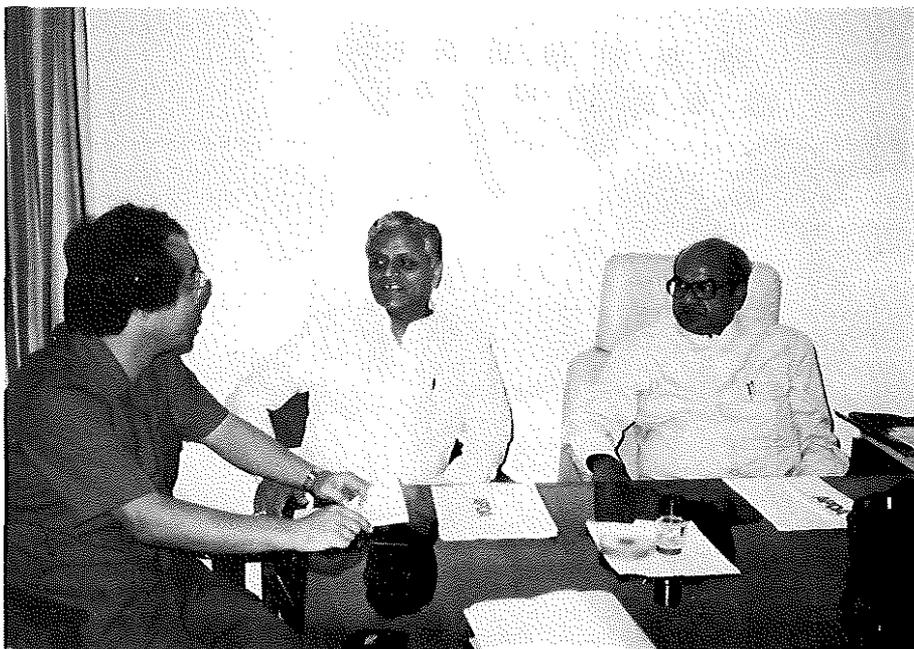
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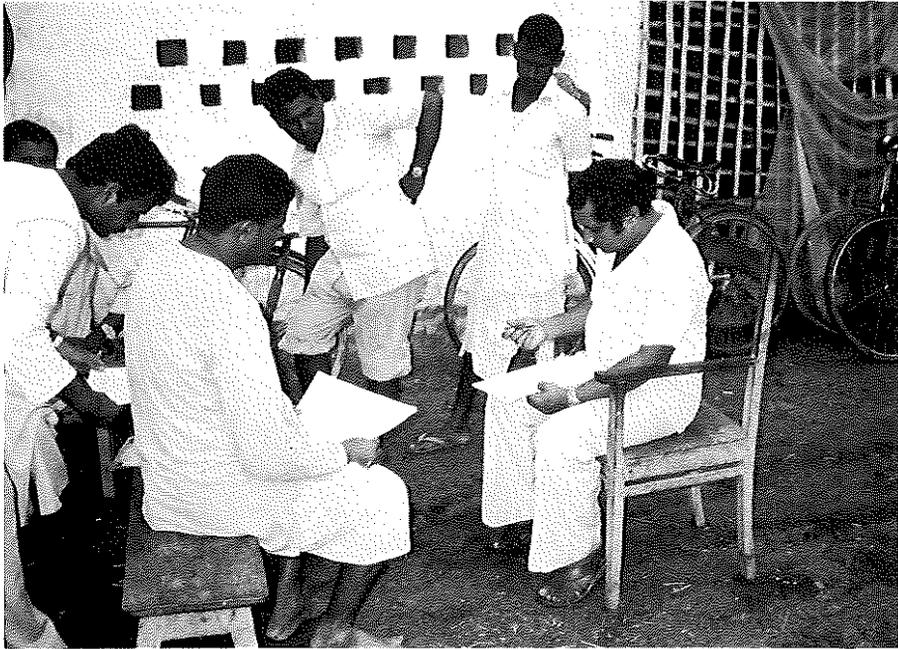
Printed in Tokyo, Japan



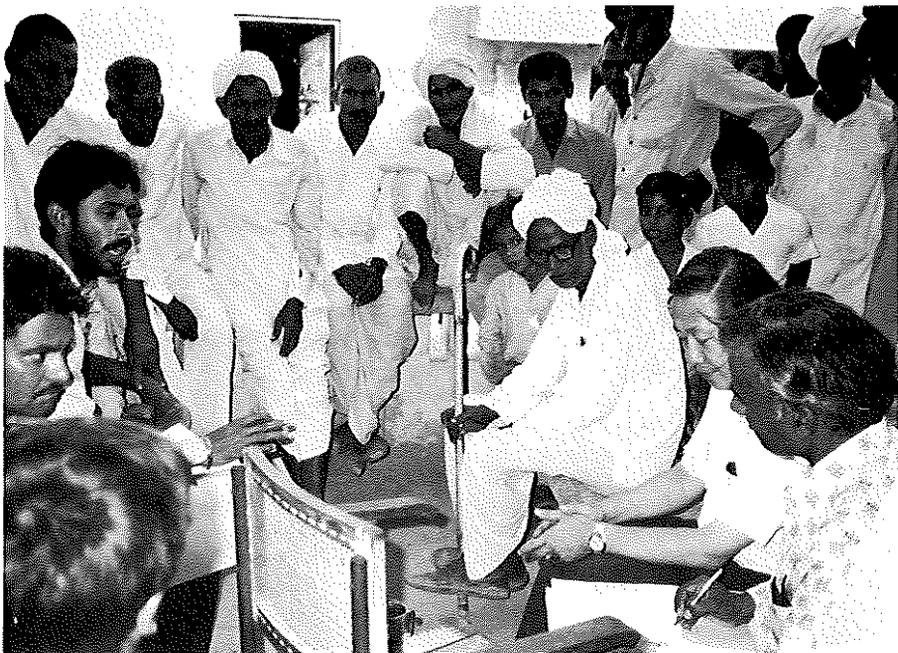
Honorable Mr. Mittal, Mr. Jain and Mr. Yano, First Secretary
(from right)



Interviewing individuals in Bihar
(Ms. Oshikawa (right))



Interviewing individuals in Bihar (Professor of Rajendra Agricultural University (right))



Interviewing individuals in Haryana (Mr. Ouchi and personnels of Haryana Agricultural University)

Foreword

This report delineates the findings of a survey of rural population and agricultural development in India. In 1984 the Asian Population and Development Association was entrusted with the Ministry of Agriculture, Forestry and Fisheries' contract survey project, "Survey of Rural Population and Agricultural Development Problems in Asian Countries." The APDA selected India as the country of a field survey to be conducted. The actual survey and analysis of its findings were conducted by the APDA's survey committee (chaired by Mr. Shigetoh Kawano, Professor Emeritus of Tokyo University).

The objective of the survey was "to select a model country from among Asian nations, conduct a field survey there, study, based on the findings of the survey, what a rural community and agricultural development program conducive to the maintenance and furtherance of the community's population supporting capacity should be, and thereby establish a guideline for Japan's international cooperation in the area of agriculture, forestry and fisheries" since it is necessary for Japan to cooperate with other Asian countries in these areas in a manner that will contribute to promote their agricultural production and enhance the farmers' standard of living.

The field survey was conducted with the guidance and cooperation of Mr. Sat Paul Mital, M.P. chairman, Indian Association of Paliamentarians for for Problems of Population & Development, Mr. Takumi Tatehozaki, the Japanese Ambassador to India, Mr. Hiroshi Utsunomiya, the councillor of the Japanese Embassy, and Mr. Keishi Yano, the first secretary of the Japanese Embassy. Also, staff members of Haryana Agricultural University and Rajendra Agricultural University favorably extended their support in the field survey. In Japan, members of the Department of International Cooperation, Economics Bureau, Ministry of Agriculture, Forestry and Fisheries, and Department of Policies, Economic Cooperation Bureau, Ministry of Foreign Affairs, cooperated in the planning and arranging of the field survey. I would like to express my heart-felt gratitude to all of them.

In conclusion, I sincerely hope that this report will contribute to the advancement of the rural community and agricultural development programs in India and the Japanese Government's effective cooperation there.

This report was compiled under the responsibility of APDA. It should be noted that any of the comments included in this report does not reflect opinions or policies of the government of Japan or the Ministry of Agriculture, Forestry and Fisheries.

February 1985

Tatsuo Tanaka
Chairman,
Asian Population and
Development Association

- CONTENTS -

FOREWORD	1
CONTENTS	3
INTRODUCTION AND SUMMARY	5
CHAPTER 1 CASE STUDY -- RURAL DEVELOPMENT AND "FAMILY PLANNING"	11
1. Geographical Areas Chosen for Survey and Method of Survey	12
(1) States of Bihar and Haryana	12
(2) Villages Chosen for Survey	13
(3) Morsand Village, Samastipur Prefecture, State of Bihar.	13
(4) Mukhalan Village, State of Haryana	15
(5) Method of Survey and Its Problems	18
2. Case Study of Rural Development (1) -- Rural Development Programs and Farmers' Response to Them in Morsand Village, Samastipur District, Bihar State	24
(1) Rural Development in Bihar State	24
(2) Case of Morsand village Samastipur District	25
3. Case Study of Rural Development (2) -- Rural Development Programs and Farmers' Responses to It in Mukhalan Village, Hissar District, Haryana	41
(1) Rural Development in Haryana State	41
(2) Case of Mukhalan Village, Hissar District	41
(3) Agricultural Production	45
(4) Farmers' Spending Pattern	46
(5) Mutual Aid Practices in the Village	47
(6) Rural Development and Agricultural Production	48
4. Case Study of "Family Planning" (1) -- Relationship between Family Size and the Practice of Family Planning in the Villages Studies	62
(1) Items of Study and Method	62
(2) Sample Population Characteristics	62
(3) Number of Existing Children and Family Planning	63
CHAPTER 2 RURAL DEVELOPMENT POLICY AND ITS PROGRESS	85
1. Issues of Organizational Capability	86

2. Participation of Potential Beneficiaries	87
MEMBERS OF THE POPULATION INQUIRY COMMISSION AND ITINERARY	97
DESCRIPTION OF THE SURVEY QUESTIONNAIRE ITEMS	103

INTRODUCTION AND SUMMARY

I

The objective of this survey is, as stated in the Foreword, to conduct a survey of the rural population and agricultural development in India, and publish the findings as data for use in Japan's international cooperation programs in the area of agricultural development.

For this purpose, we chose two villages in India and investigated the current state of agricultural development and family planning in each village through a questionnaire survey distributed to each respective sample population. The relationship between the objective of this survey and the field survey conducted in India is as stated below.

1. Needless to say, the objective of agricultural development is to increase the supporting capacity of the population of a rural community and thereby raise the living standards of its residents. But if an increase in agricultural productivity ends merely in the increase of the population, specifically as the case suggested by Malthus' theory of population, it follows that poverty in a developing nation would simply be reproduced.

To lead the increase in agricultural productivity to an increase in the per capita income and improvement in living standards, it is necessary that the rate of increase in population be kept at a level below the rate of increase in agricultural productivity. In a Malthusian situation, however, an increase in agricultural productivity brings about an increase in the number of marriages and the birth rate as well as a decline in the mortality rate, and consequently rapid population increase occurs. It does not necessarily lead to an increase in agricultural investment and thereby to agricultural development.

To terminate such a vicious cycle, therefore, conscious and active efforts are needed. Family planning is one such effort.

In India, which recorded marked increase in the population in the 1960's, the family planning movement was promoted as a national policy since the 1970's. Therefore, the primary purpose of our field survey in India was to investigate, first of all, to what extent and in what forms family planning is conducted in the rural communities.

2. Next, we investigated how family planning is related to rural or agricultural development. In this survey, we had two questions. One was, "How do the results of rural development relate to the implementation of family planning?" And the other was, "How do the results of family planning affect rural development?"

3. But it was extremely difficult to conduct this survey as a chronological survey of a family or of a community due to a lack of related references and information. We therefore decided to choose two economically differentiated areas -- an advanced area and a less advanced one -- and conduct a comparative analysis of the results in the two areas. In each area, we tried to investigate how the difference in a household's economic strength affected this problem. However, as mentioned later, we were only able to make comparisons as to the households classified by the size of landownership.

4. First of all, we conducted a general survey of agricultural development of the two states of Bihar and Haryana where the villages surveyed are located. In the questionnaire survey, we investigated the farmers' current living conditions and their attitudes toward rural development programs. We did not place much emphasis on the effect of rural development in this survey since we did not believe it was easy to obtain relevant data with which to measure the effects of rural development. As a result, this survey did not fully investigate with the relationship between agricultural development and family planning. So long as the farmers' households are classified by landownership and the scale of landownership is supposed to determine the level of income, the results of this survey indirectly could indicate the assumptions regarding this problem. However, there might remain some questions even on the assumptions, and we must plan and implement another survey to confirm this particular relationship.

II

Next we will comment on some impressive points of the findings of this survey.

1. As mentioned earlier, we selected the State of Bihar and State of Haryana and then chose M (Morsand) Village of Samastipur in Bihar and MK (Mukhalan) Village of Hissar in Haryana. An outline of the two villages is shown in another section of this report. Each village is located about 10 km away from the university those universities are cooperated in this survey. Rajendra Agricultural University in Bihar and Haryana Agricultural University in Haryana. When we compare the two states, Haryana's per capita income is more than twice that of Bihar and Haryana's yield per unit area of wheat is also more than twice that of Bihar. In terms of per capita income, Bihar is the lowest in the rank in India, while Haryana ranks second only next to State of Punjab. If this difference in income level results from the difference in the level of economic development, the two states are believed to be at opposite extremes - one is a developed state and the other is an underdeveloped state. In fact, it is mentioned in India that "Punjab and Haryana are agriculturally developed regions." The two states of Bihar and Haryana differ widely in the level of

irrigation facilities, use of high-yield varieties, and chemical fertilizers. And this difference is considered to have led to the difference in the field of welfare and education such as the diffusion rate of hospitals, school attendance rate of children, etc.

2. Regarding the two villages selected for this survey, M. Village has many petty farmers and is characterized by the prevalence of rice farming. The farming population accounts for 90% of the total employed populations, and of the total farming population, farm workers account for 45%. In contrast, the farming population accounts for 74% of the total employed population in MK. Village. Of the total farming population, farm workers account for only 13% there. In other words, the non-farming job opportunity is relatively abundant within and in the suburbs of MK. Village. The rate of the male population's outflow is believed to be very high. In terms of agricultural production, M. Village's main produces are rice, vegetables, and tobacco, while MK. Village's major produces are wheat (winter), bajara (summer), feed grains and cotton, which are marketable goods. In MK. Village the farming wage level is presumably 50% higher than that in M. Village. Thus, MK. Village has better living conditions. Our field workers reported that MK. Village is far better off than M. Village in both quality and quantity of food.

In terms of educational facilities, however, M. Village seems to be relatively advanced in Samastipur, and in the State of Bihar. It has a primary school, a middle school, a high school and a college. On the campus of the nearby Rajendra Agricultural University is the Pusa Development Block's office. On the other hand, MK. Village has better educational facilities, due to its better economic conditions. It has a primary school, a middle school and a high school, all of which are better equipped than in M. Village. It is reported that a day-care center for working mothers has been set up in this village.

3. Here we will comment on some impressive points of the findings related to family planning, although this may reverse the order of description in this report.

1) It is believed that M. Village has a higher child mortality rate than MK. Village. In the case of M. Village, landless farm workers' households are believed to have the highest child mortality rate. In both villages, a low income level may be the main cause of high mortality.

2) In the case of MK. Village, mothers remain reproductive for a considerably long time, which may explain more child births than M. Village. Is this related to the village's relatively high income level? Or is it related to the relatively low child mortality rate?

3) On the other hand, it should be noted that upper-class farmers (in terms of landowning) tend to have a small number of children in consideration of educational expenses. This is considered to be the beginning of a type of family planning scheme.

4) When we compare the implementation rate family planning by landless households, family planning by landless households in M. Village is contrary to that in MK. Village. We have yet to investigate the cause for this.

5) Although there are some different reasons cited, this survey has confirmed the national tendency to prefer male babies to female babies in India. It should be noted that this tendency is closely related to the implementation rate of family planning.

4. In light of the objective of this survey, it is of great concern how these population-related phenomena and family planning are related to the results of rural or agricultural development. Unfortunately, we were unable to directly clarify this point because the households were classified by landownership. We were only able to make indirect inference from the fact that MK. Village is more developed than M. Village and the fact that households with large land ownership have high incomes may mean that the same tendency observed there would be true of the farmers in the case when development has been attained.

It should be noted here that in comparison with M. Village, MK. Village has a larger number of existing children per mother. There is an assumption that in a certain stage of development, including agricultural development, the population suddenly increases in the form of high birth rate and low death rate. In the case of MK. Village, this pattern may have occurred. This may be an example of a major nationwide problem in India.

On the other hand, as mentioned earlier, upper-class farmers in MK. Village tend to have a small number of children. This may be considered a sign of a trend of low birth rate and low death rate, historically observed to occur following a high-birth-low-death period.

As to the farmers' current attitudes relative to rural development programs, they are explained in detail in another section of this report. In Japan it is generally believed that the scale of landownership determines the scale of money to be invested; in other words, a high level of incomes due to the large scale of landownership, leads to the possibility of investment. In India, however, it can be thought that educational level and personal character, regardless of landowning, play a key role in rural development programs. Then what is the reason for this? We will have to investigate this as a specific problem in the rural communities of India. The methods of family planning are described in another section of this report.

CHAPTER 1: Case Study -- Rural Development and
"Family Planning"

Case Study -- Rural Development and "Family Planning"

1. Geographical Areas Chosen for Survey and Method of Survey

In this survey we selected the State of Haryana as an example of a developed region and the State of Bihar as an example of a less developed region, with the aim of first studying the problems of the nation's rural development policy. Secondly, the relationship between the nation's economic development and its population problems were reviewed. A model village in each of the two states was chosen, after which a questionnaire survey of the households sampled in each village was conducted. Here we will present an overview of the characteristics of each village, and also briefly comment on the problems of the survey methodology we employed.

(1) States of Bihar and Haryana

First of all, what is the relative status of each state in terms of regional disparity in the national economic development? It is dangerous to rashly argue about regional disparity in a country's economic development since it is the result of a complex combination of various geographical, political and social factors. Here we take up, for convenience's sake, several indicators, including per capita income, yield per unit area of rice and wheat, which are India's primary agricultural produces. These indicators for the major states of India are presented in Table 1. In terms of per capita income, the State of Haryana ranks second only next to the State of Punjab for the 1981 - 82 period, while the State of Bihar ranks the lowest, its per capita income being about two-fifth that of the State of Haryana. The gap existing between the two when comparing the 1971 - 72 period and the 1981 - 82 period is apparently growing wider.

Also in terms of yield per unit area of rice and wheat, Haryana's yield per unit area of rice is approximately 2.7 times that of Bihar, and Haryana's yield per unit area of wheat is about 1.7 times that of Bihar. The State of Haryana ranks secondly next to the State of Punjab in yields of rice and wheat. It was in the 1970's that rice farming was introduced to the State of Haryana on a full scale. In recent years, rice has become one of the most important marketable summer agricultural product in the well-irrigated northern region of the state. Haryana's yield per unit area of rice and wheat is smaller than that of Punjab. This is primarily because the southern part of the state is located in a semi-arid region, reducing the area's yield of rice and wheat to a level that is below the average of the state. The geographical areas chosen for this survey is located in the southern part of Haryana, it means on the periphery of the developed regions of Punjab and Haryana.

Regional disparity in terms of yield per unit area of an agricultural product is greatly affected by the difference in the

level of use of high-yield varieties and inputs such as chemical fertilizers, both of which require well-developed irrigation systems. Bihar and Haryana differ significantly in regard to these two important factors.

There is also a great difference between the two states in education and social welfare -- for example, the ratio between the populations and hospital beds, and the school enrolment rate.

Tables 1-1 to 1-3 are a regional comparison of per capita income, yield per unit area of rice and wheat. In terms of per capita income, the northwestern part of India, including Punjab and Haryana, where the Green Revolution has been successful and areas such as Maharashtra and West Bengal which have large cities where industry, commerce and services are concentrated rank the highest. On the other hand, the State of Bihar ranks lowest among the rice producing regions.

(2) Villages Chosen for Survey

We entrusted Rajendra Agricultural University (Bihar) and Haryana Agricultural University (Haryana) with the selection of a model village in each of the two states. In each state, a village located within 10km of the university was selected as the model. Because of our time limitations, we requested both universities to first preliminary conduct a survey and then select as the model village a medium-sized village having a population of about 2,000 where reliable data on population, social class structure, landownership etc. could be obtained. For various reasons, our requirements were not completely satisfied.

(3) Morsand Village, Samastipur Prefecture, State of Bihar

Samastipur District, where Rajendra Agricultural University is located, is on the plains spreading north from the Ganges. Up until the early 1970's, it was part of the former Darbhanga District. Rajendra Agricultural University is about 100km from Patna, the capital of the State of Bihar. Ferryboats were the only means of crossing the Ganges until 1982 when the Mahatma Gandhi Bridge was completed. Now the residents of the region can easily reach Patna by crossing the river using this bridge. It is a 3 to 4-hour car ride to Patna, and the distance between the university and Samastipur, the District head city, is 20 to 30 km. That between Samastipur and muzaffarpur the capital of the neighboring state of muzaffarpur is also 20 to 30 km. Bus traffic is heavy on the road connecting the two cities. Also, there are bus routes between the two cities and Patna and major cities in North Bihar. Furthermore, they are linked with Calcutta and the State of Uttar Pradesh by rail.

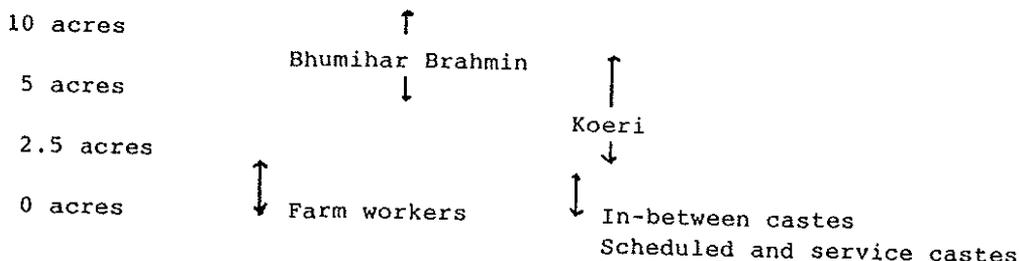
The entire area of North Bihar, including Samastipur District, is the most densely populated area in the State of Bihar. Samastipur

District's population density is as high as 729 persons/km² (1981). There are many small/marginal farmers (*1) and the percentage of Agricultural Labourers the total working population is very high. In the 1981 Census, Agricultural Labourers accounted for 42% of the overall working population, which was higher than the 40% for cultivators.

Morsand Village, which was chosen as a model village, is located about 8 km south of the university. It is a large-scale village located on a paved road. During the survey period, employees of the Bihar State Government were on strike. Therefore, we were unable to obtain the 1981 Census Data on the village. In the 1971 Census, the village had an area of 531 ha and a populaion of 4,120. From this we can estimate its population for 1981 at slightly more than 5,000 and that for 1984 at 5,500 to 5,600. Of its total population, the "scheduled castes" or the "untouchables" accounted for about 23%. Of its total working population, agricultural workers (cultivators and Agricultural Labourers) accounted for about 90%. Agricultural Labourers accounted for 45% of the total (*2) (see Table 1-2).

The village has an primary school (5 to 10 years), a middle school (10 to 13 years) and a high school (13 to 16 years). In addition, it has a college presumably because it is located very close to Rajendra Agricultural University. Administratively, the village is under the jurisdiction of the Pusa Development Block which has its office on the campus of Rajendra Agricultural University. The entire village comprises a single panchayat, and the village also has a sub-center belonging to the Primary Health Center, which has its headquarters on the campus of the university. Thus, the village is a large-scale one relatively well equipped with transportation facilities. It is also relatively well off in terms of educational and administrative facilities.

Although we could not obtain comprehensive data on its social class structure, we may illustrate it as follows.



Upper-class farmers possessing more than 10 acres of land are mostly Bhumihar Brahmin. Those with land holdings of about 5 acres are Koeri. Petty farmers with 5 or less acres of land belong to the other intermedicate and backwards castes while landless Agricultural Labourers belong to the scheduled castes. The Bhumihar Brahmin is one

of the most influential group in the State of Bihar. It exerts a great influence in the central part of the state, in which this particular village is located. Also Koeri is a very influential group having a large population in Bihar. In the case of Morsand Village, Koeri is subordinate to Bhumi-har Brahmin in total land area owned but it possesses the largest population. It presumably has a strong voice in the village. The village also has a small Muslim population.

The residents of the village are scattered throughout more than 20 residential areas, but it is rare for the Bhumi-har Brahmin and Koeri, who are at odds with each other, to reside in one area. Scheduled castes are concentrated in the peripheral areas. Even when they reside together with other groups, they usually live in isolation from the others.

The houses of Bhumi-har Brahmin and Koeri are primarily pukka houses (made of bricks and cement). A typical pukka house has 4 to 5 rooms surrounding a courtyard, which serves also as the kitchen. In front of the house, there is a space for cattle and workshops. In contrast, the houses of lower-class groups such as the scheduled castes are extremely small houses made of reeds, having only a single room or two. (photo) Drinking water is pumped up from a well. Except for some middle and upper-class farmers, who have hand pumps for exclusive use, most households are using public hand pumps. Fuel used is, for the most part, firewood and dried cow dung. Gobal gas plants are seldom used. Electricity is available for only a few households, the rare exceptions being shops located on the road and some upper class farmers.

A general store, bicycle/motor cycle repair shop, barber shop and so forth are situated on the road. Almost all daily necessities are available at this shopping area. Many villagers go to Samastipur and Muzaffarpur for shopping or to watch movies occasionally.

Now let us take a look at this village's agriculture. The primary agricultural product is rice. In addition to rice, vegetable such as eggplant and tobacco are grown. Cultivation of these marketable items is done mainly by middle and upper-class farmers. The percentage of irrigated area to total cropped area was approximately 14 per cent in 1971, a number that has not changed significantly up to the present day. The average wage for farm workers is about 8 rupees.

(4) Mukhalan Village, State of Haryana

Mukhalan Village, the model village chosen in the State of Haryana, is located in the Hissar II development District in the southern part of the State of Haryana. Hissar District is an arid region bordering the State of Rajasthan. Canal irrigation is commonly used in this region. By contrast, tube-well irrigation, which is common in the northern part of Haryana, is seldom seen here. Most of

the arable land has been consolidated. The village's population density as of 1981 is 237 persons/km² or about one-third that of Samastipur District in the State of Bihar. Agricultural producers (Cultivators and Agricultural labourers) account for 75% of the total working population. Cultivators alone account for 56% of the total, while farm Agricultural labourers account for 19% in the same comparison. When compared to Samastipur District in Bihar, the percentage of the non-Agricultural sector in the total working population is relatively high in this prefecture. In the Agricultural sector, on the other hand, the percentage of Agricultural Labourers is very low. In Haryana, the scale of the holdings is quite large. In 1976 - 77, the average size of a holding was 3.58 ha, and Haryana is one of those states which have the largest holding.

Mukhalan Village is located approximately 10km away from the downtown Hissar, the central city of Hissar District. It is a medium-sized village (its population as of 1981 is about 2,110). In the 1971 Census, the percentage of the scheduled castes' population in the overall population was 42%. The percentage of cultivators in the total working population was 61%, that of Agricultural Labourers registering 13%. Because of the village's proximity to Hissar City, the percentage of factory workers and service sector employees among the total working population is relatively high (see Table 1-2).

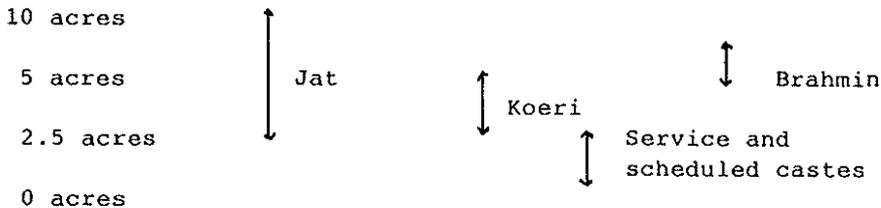
When we compare Mukhalan's population composition with that of Morsand Village of Bihar, quite evident is the relatively small female population of the former. India is one of the few countries in the world where the female population is smaller than the male population. This is especially the case in northwestern India, including Punjab and Haryana. (*3)

The ratio of the female population to the male population was 1,008 : 1,000 (1971) in Morsand Village and 857 (1971) in Mukhalan Village. As for emigration, we may correctly estimate that the rate is higher among males in both villages. We may therefore conclude that the ratio of the female population to the male population of 857 in Morsand Village is very low. This fact will be an important clue in considering the numbers of children and family planning in both villages.

Administratively, Mukhalan Village belongs to the Hissar Development District and the entire village comprises a single panchayat. The village has a primary school, middle school and high school, and some daycare centers for working mothers. Educational facilities of these institutions in Mukhalan Village are far better than those found in Morsand Village.

As in many other villages in Haryana, farming community referred to as Jat, is predominant in Mukhalan Village. This farming community is broadly distributed among the farming population -- from middle and

upper-class farmers down to lower class farmers. These communities hold a dominant position in terms of land ownership and population size. Most Agricultural Labourers and other service workers belong to scheduled castes. There are also Ketri, in which some middle and upper-class farmers and educators who work in Hissar City are included. This village does not have a Muslim population.



Unlike Morsand Village, Mukhalan Village an assembled village which is commonly seen in the northwestern region of India. Near the main road leading to Hissar City, one will come to the village's central area where Jat houses constructed of bricks and cement are clustered. There are scheduled castes houses surrounding the outer borderline of Jat houses. A certain number of upper-class jat farmers' houses are located on their farms. Housings of middle and upper-classes are built handsomely and 2 or 3 storied houses are not uncommon. the roofs of such housing are used as sleeping quarters during the summer season. In front of such houses are the following: space for cattle; storage facilities; and an area for the male occupants to chat with one another over smoking. And behind the divider is the courtyard, which also as the house's kitchen. The bathroom and toilet facilities face the courtyard. Only those males belonging to the family are allowed to enter the courtyard and beyond. Electrical lighting is available in most of these housing units. In the homes of middle and upper-class farmers in particular, even lighting fixtures with employing numerous electrical light-bulbs are used. Drinking water is supplied by the water purification plant located on the outskirts of the village (this plant is one of those water purification plants that were constructed using grants-in-aid funding from the World Bank, and a single plant services as many as 4 to 5 villages). And water taps have been installed at several locations in the villages. However, during the daytime, there are frequent power failures, and when this occurs the villagers are not able to use the water system. Early every evening many women can be seen walking with waterfilled brass jars mounted on their heads. In some villages neighboring Mukhalan Village, the panchayat have dug large wells as a source of public water supply.

The courtyard kitchens of all residential units of Mukhalan Villages are far better in quality than those seen in Morsand Village. They are usually equipped with various kitchen utensils, including pots, pans, chinaware and stainless steel tableware. A fireplace for boiling milk in addition to one for cooking are also commonly found.

The main diet of the villagers consists of prepared chapaties from wheat and cereals, vegetables, water buffalo milk, clarified butter and yoghurt. Milk and the milk products represent the most important source of protein for the inhabitants. In comparison with Morsand Village, the Mukhalan villagers are enjoy foods which are far better in terms of quality and quantity. Fuel is primarily in the form of dried cow dung.

As for the village's agriculture, wheat is grown in winter. Additionally, feed grains and raw cotton as marketable products are grown for the most part by middle and upper-class farmers. The wage level (10 - 12 rupee) is higher for Agricultural Labourers here in comparison to those of Morsand Village.

(5) Method of Survey and Its Problems

The random sampling method was used in this survey. In both villages studied, all households are divided into 6 clusters according to the size of land owned, and 5 households were randomly selected from each cluster. Consequently, a sample of 30 households was obtained for each village, and it should be kept in mind that the sampled for each village do not accurately reflect the weight of each cluster in both villages. The questionnaire covered such items as household composition, economic activity, market accessibility, communication, family planning and other topics (see the attached questionnaire).

In this survey, we were unable to engage in prior consultation with local survey groups regarding the survey details as a result of time limitations. Therefore, our survey methodology is accompanied by several problems.

1) Selection of States and Villages

For the selection of villages, it was not possible for us to choose those from which basic data could be obtained prior to the start of the actual survey field work. As a result, it was extremely difficult to carry out sampling in a manner that would allow a comparative analysis. Furthermore, in the case of Bihar, the size of the village selected for study was excessively large.

Regarding the regions chosen for study, our survey generated interesting sets of data allowing a comparison of the two regions under study by such variables as geography, society, policy and culture. It was also possible to relate the problem of economic development to that of population. Nevertheless, the data produced also incorporated factors making it difficult to fully examine the correlation between the two problems of economic development and population. Taking account of the time limitation, it would have been better for us to choose 2 villages of different economic development level in one region

for more detailed comparative analysis.

2) Subject Matter

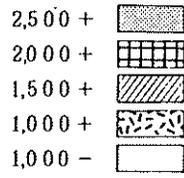
The questionnaire was designed based on the assumptions that: a) local field research workers could modify it so that it would be in line with the actual situation if necessary; and b) basic data and information could be gathered prior to the actual survey. Due to inadequate prior consultation, however, the local field research workers could not modify the questionnaire, thus they may have experienced numerous difficulties when implementing this questionnaire as it is. Some of the returned questionnaire forms were found to have several findings which we did not initially intend. Also, there was an excessive number of items contained in the questionnaire.

3) Sampling

As mentioned earlier, the household samples do not reflect the actual socio-economic structure of the two villages. Relating to the concept of population, sampling was performed without recording the respondents' age, and this made it very difficult to study the population problems. Small sample size could not be avoided when taking into account the very short survey period.

Despite these problems, local field research workers did their best to complete the survey. Their sincere and dedicated efforts are greatly appreciated.

Fig. 1 Per capita income (Rupees)



Kerala 80/81
Tripura 79/80

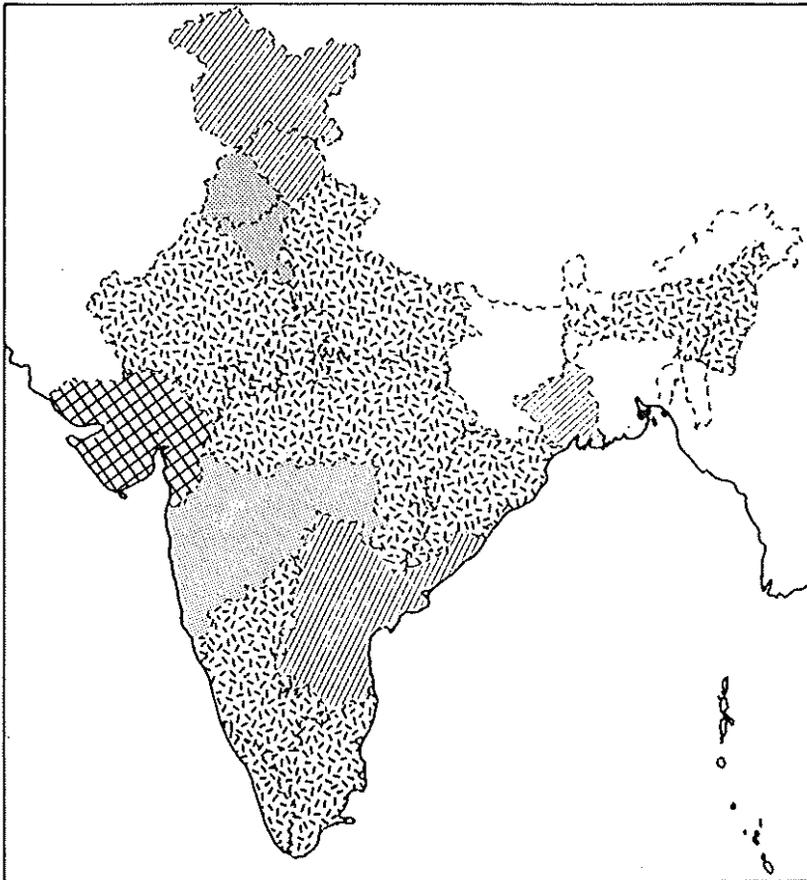


Fig. 2 Rice production (Yield/ha)

80/81 81/82

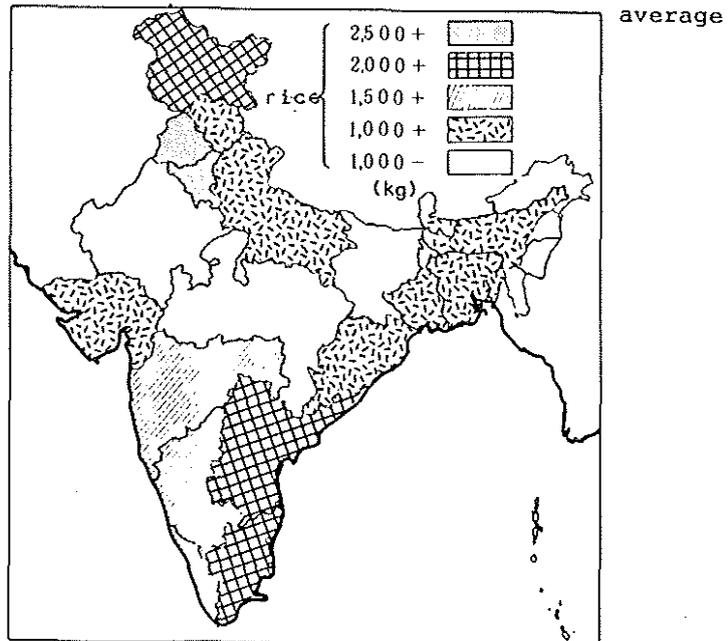


Fig. 3 Wheat production (Yield/ha)

80/81 81/82

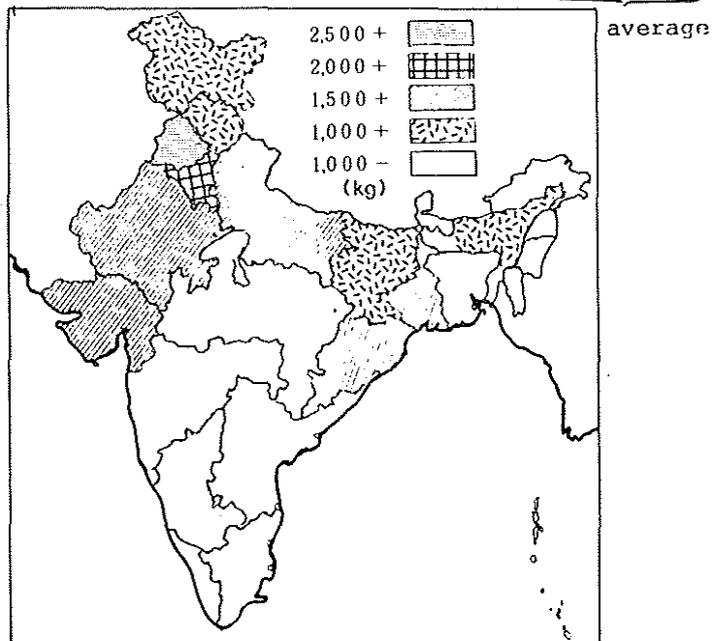


Table 1-1

	Per capita income		Yield per unit area (kg/ha)		Ratio of irrigated land	Volume of chemical fertilizers applied	Urbanization rate	Population per bed	Primary school attendance rate
	1981-82 (Current price)	1921-22 (Current price)	Rice	Wheat	1978 - 1979	1982 - 83 (kg/ha)	1981 (%)	1982	1981 - 82 (%)
Andra Pradesh	1,536	627	(R) 2,005	511	32.2	53.0	23.3	1,577	87
Assam	1,380	548	(R) 1,051	1,144	21.4	4.1	10.3	2,130	38
Bihar	995	415	(R) 945	1,394	34.7	18.5	12.5	3,050	76
Gujarat	2,211	827	1,321	1,990	18.0	38.7	31.1	1,046	107
Haryana	2,581	960	2,536	(W) 2,358	52.5	47.4	21.9	1,811	81
Himachal Pradesh	1,659	716	1,074	(W) 1,241	15.9	19.5	7.6	1,561	118
Jammu and Kashmir	1,630	588	2,074	1,032	42.1	32.3	21.1	1,390	80
Karnataka	1,458	698	1,980	626	13.7	38.3	28.9	1,276	93
Kerala	*1,312	568	(R) 1,585	--	10.3	36.9	18.7	569	101
Madhya Pradesh	1,217	535	814	964	12.3	11.0	20.3	3,164	60
Maharashtra	2,519	808	1,589	870	10.4	26.3	35.0	834	117
Orissa	1,308	473	(R) 1,459	1,855	18.8	10.8	11.8	2,286	84
Punjab	3,122	1,121	2,846	(W) 2,831	78.1	127.8	27.7	1,199	109
Rajasthan	1,417	560	886	1,562	18.7	7.1	21.0	1,962	65
Tamilnadu	1,373	648	(R) 2,063	--	46.0	58.6	33.0	1,189	119
Uttar Pradesh	1,313	497	1,066	(W) 1,646	50.9	33.0	17.9	2,460	71
West Bengal	1,595	779	(R) 1,281	1,545	26.9	53.3	26.5	1,129	81
India total (including others)	1,780	672	1,327	1,663	26.6	36.6	23.3	1,439	

1. Net domestic product - State population, current price *1980/81
2. 80/81, 81/82 average, (R), (W) show that planted acreage for rice and wheat accounts for more than 35% of total planted acreage.
3. Irrigated land - total planted acreage
4. Jammu Kashmir 1977, Kerala 1978, Bihar and Gujarat 1980, Andra Pradesh and Tamilnadu 1980, Punjab 1981 - 82
5. Registered no. of children of 6 to 11 years / total no. of children of same age group. Percentage may exceed 100% due to dual registration.

Table 1 - 2

	Morsand Village (Samastipur District, Pusa Development Block)			Mukhalan Village (Hissar District, Hissar II development Block)		
	1971			1971		
1. Area (ha)	530.94			979		
2. No. of houses	596			209		
3. No. of households	761			240		
4. Population	P4120	M2051	F2069	P1521	M 819	F 702
5. Population of scheduled castes	M 479	F 483		M 341	F 297	
6. Population of scheduled tribes	--			--	--	
7. Literate population	M 660	F 127		M 296	F 49	
8. Employed population	M1073	F 70		M 482	F 4	
8-I Cultivators (farmers)	M 504	F 11		M 254	F 1	
8-II Farm workers	M 455	F 58		M 52	--	
8-III Stock-raising, forestry, fishery, etc.	M 11	--		M 3	--	
8-IV Mining	--	--		--	--	
8-V-a Home manufacturing	M 20	--		M 7	--	
8-V-b Non-home manufacturing	M 9	--		M 50	F 2	
8-VI Construction	--	--		M 2	--	
8-VII Commerce	M 13	--		M 13	F 1	
8-VIII Transportation, storage	M 5	--		M 6	--	
8-IX Other service	M 56	F 1		M 25	--	
9. Non-employed population	M 978	F1999		M 407	F 698	

Population density 1971

2. Case Study of Rural Development (1)

-- Rural Development Programs and Farmers' Response to Them in Morsand Village, Samastipur District, Bihar State

(1) Rural Development in Bihar State

When examining rural development in the State of Bihar, it is necessary to identify the problems present in the rural communities of Bihar.

Rural development aims at increasing agricultural productivity, and reducing the number of the poor in rural communities. For this purpose then, the specific objectives are to create employment opportunities, provide subsidual sources of income, supply production inputs and improve the living environment in rural areas.

The 1981 Census points to the fact that the State of Bihar had a rural population of 62,124,100, of which 7,135,700 were cultivators and 2,868 were small and marginal farmers. Furthermore, those living below the poverty line numbered some 36,008,200 or 58.9% of total rural populaion, and is slightly higher than the national average of 50.72%. It is by far higher than the figure of 23.25% for the State of Haryana. This fact underlines the importance of rural development in the State of Bihar.

Let us look at the policy objectives of land reforms, the programs of improving living environment, and rural development programs (such as IRDP, NREP, RLEGP), by referring to the physical goals (1984 - 85) presented in the new 20-point program which the Bihar State Government is executing in cooperation with the central government. (see Table 2-1)

The state government's rural development goals for 1984 - 85 are described below.

IRDP covers 352,200 families or 1,761,000 persons if the number of a family's members is 5 on the average. This figure accounts for approximately 17.56% of total of those below the poverty line (official estimate).

Regarding the generation of employment opportunities, NREP is aiming at creating 43,000,000 man-days and RLEG 39,215,000 man-days respectively (82,215,000 man-days in total).

In the land reform program, surplus land of 27,850 acres will be distributed among the beneficiaries. As of 1984, the total land declared surplus in Bihar was 283,750 acres, of which 170,463 acres have been purchased and 163,292 acres have been distributed among 180,533 beneficiaries. Therefore, amount of land avialable for

immediate distribution is 7,171 acres. And the difference between the area of land declared surplus and that of distributed land is 120,458 acres. This means that the state government could have set a slightly higher goal if it were seriously endeavoring to improve the status of poor farmers in the rural communities.

Some people may argue that it is useless to distribute too small a parcel of land which cannot be economically developed. But past achievements in rural development show that even a very small piece of land become the base for such side businesses as poultry and hog raising. So an argument is gaining ground that the key to success in rural development is distribution of small plots of land among marginal farmers and the landless. Promotion of land reform is an issue that cannot be ignored in the context of successful implementation of rural development.

The new 20-point program contains goals related to improving the living environment -- under such headings as drinking water, housing, electrification, reforestation, biogas, sterilization, health/sanitation and so on.

As to the current state of execution of the 20-point program in Sitap District is concerned, we were unable to obtain relevant data from the block development officer partly due to the strike by local government employees. We wish, however, to continue to investigate this matter in future.

(2) Case of Morsand Village, Samastipur District

In this case study, we attempted to investigate the actual situation of the rural development programs, farmers' response toward them and the impacts of program. Although we wanted also to investigate the real conditions of the practices of mutual aid unique to this village as well as the relationship between such mutual aid practices and exogenous factors (namely, the government's development policy), and the effects they would have on each other, time limitations prevented us from studying this aspect during our stay in the village.

As a whole, we received the impression that, as in Mukhalan Village of Haryana, such rural development programs as IRDP, NREP and TRYSEM had no significant impacts on the villagers' lives. The actual situation may be more complicated than we have anticipated. There appears to be numerous items we must clarify. By looking at Table 2-2-1, the problems can be identified.

1) Farmers' Participation in Rural Development Programs

In response to our question regarding participation in rural development programs, 26 out of the total 28 respondent households

(households No.12 and No.23 did not respond) replied to our inquiry.

Of the 26 households that replied to our question, 8 households or 30% of the total gave affirmative responses.

The head of household No.10 replied that he received a loan of 5,000 rupees from IRDP. He only owns 1 acre of land, but his family belongs to the Koeri, the dominant caste in the village. He is 40 years old, and is one of the very rare individuals in the village who is a college graduate. He is currently the chairman of the village's panchayat (village's autonomous organ consisting of 9 to 11 members elected from among the village people) as well as a member of the village's cooperative. He earns an annual cash income of 1,000 rupees from the sale of milk, and is therefore not very wealthy.

The head of household No.11 is dependent on the government's rural development programs for the purchase of fertilizers and seeds. He also received a loan of 7,200 rupees to purchase a pump-set. He owns 1.5 acres of land and cultivates gross cropped area of 3 acres. It appears that he himself does not engage in cultivation because he is a Brahmin priest. He is a 35 year-old high school graduate and a member of the village panchayat and does not own farm implements but does have a bicycle, watch and other personal items. In consideration of his financial status, it would have been impossible for him to receive a loan for as much as 7,200 rupees without a recommendation or support of an administrative official involved in rural development programmes. As one of the reasons for nonparticipation in rural development programmes, numerous respondents cited corrupt administrative officials -- demands for bribes as one example. However, he did not refer specifically to this point, and appeared to be on excellent terms with the administrative officials.

The head of households No.13 received financial aid as part of a rural development programme in August 1984. But he did not disclose the amount. He owns 2 acres of land and cultivates a gross area of 3.44 acres. He grows mainly tobacco and peppers, and earns an annual cash income from the sale of these goods. His family belongs to the Koeri, the dominant caste in the village.

The head of household No.20 participated in TRYSEM (Training of Rural Youth for Self Employment) in 1984 and is now receiving a monthly stipend amounting to 75 rupees. When receiving training outside the village, his monthly stipend increases to from 150 to 200 rupees. The training center itself receives 50 rupees in addition to 25 rupees for material costs on a per-trainee basis, the upper ceiling being set at 200 rupees. The trainee is supplied with a tool kit (maximum amount of 500 rupees). The head of household No.20 is 28 years old and belongs to the Kurmi caste. He completed matriculation and owns 4.5 acres of land, while cultivating a gross acre of 8.7 acres. He uses 1 acre for growing tobacco plants and 5.2 area for

growing beans, potatoes, maize and vegetables and rape seeds. Last year he earned a cash income of 5,000 rupees from the sale of tobacco and 6,000 rupees from sale of other farm products. In 1969, he purchased 3 ploughs and in 1979 a pump. He purchased a bicycle in 1964, 4 watches in 1969, 2 radios in 1974 and a sewing machine in 1983. It appears that he had enough wealth to spare in 1969. He appears to have a cyclical 5 year spending pattern since 1964. This 5 year cycle reflects a typical spending pattern within the village. TRYSEM may provide an impetus to his household's income and expenditures.

The head of household No.21 replied that his household is also participating in TRYSEM (training in operating a sewing machine). Since the head of the household is 65 years of age and thus does not qualify for TRYSEM, it seems that a younger member of the family is taking part in the programme.

In addition to TRYSEM, this household purchased an entire pump set with financial aid received from the government. It was discovered that the pump-set was purchased in 1969, so this implies that the household did not receive financial aid from IRDP but a subsidy from SFDA or some other programme under the guidance of an administrative official. This household belongs to the caste known as Kushwaha (which may be a faction belonging to the Koeri). The head of the household fulfilled matriculation.

Household No.28 also replied that it has participated in a rural development programme. This household obtained seeds and fertilizers from the State of Bihar Federation of Cooperatives under the guidance of an administrative official. It possesses 27 acres of land and is cultivating a gross area of 27 acres. The farm products include tobacco, wheat, maize, beans, sugarcane, rape seeds, spices, vegetables, and so on. 4,000 rupees are earned from the sale of tobacco, 3,000 rupees from the sale of wheat and 6,000 rupees from the sale of other goods (13,320 rupees in total). Belonging to the Koeri caste, its household head is 60 years old. His educational background is unknown, but he is a member of the village panchayat.

The above are the typical profiles of the households of Morsand Village participating in rural development programmes.

2) Farmers' Responses to Rural Development Programmes

It is questionable whether the villagers are well informed of rural development programmes and the objectives of government policy. In this survey, we had the villagers reply by selecting one out of three levels of their own appraisal -- "Useless", "Beneficial" and "Very Beneficial" of the government's rural development programmes. Of the total of 28 respondent households, 2 did not reply. As a whole, the villagers were seen to appreciate effects of the rural

development programmes. Of the 26 households that responded, only 2 picked "Useless". 19 households selected "Beneficial" and 5 "Very Beneficial".

As mentioned earlier, however, 18 out of 26 households (excluding the 2 households which did not reply) responded by saying they have never taken part in rural development programmes. Then, what are the reasons?

3) Reasons for Not Participating in Rural Development Programmes

Of the total of 28 households, 23 indicated their reasons for nonparticipation in the rural development programmes.

After reviewing their responses, we were of the impression that exploitation by government officials, such as demands for bribes, is widespread throughout the village. As many as 8 households explicitly referred to this phenomenon and many others made indirect reference to it by citing "Difficult procedure".

4) Farmers' Social Activities

We investigated whether or not the respondent households of Morsand Village were participating in the village panchayat or cooperative.

Of the 28 households, 15 or slightly less than 54% of the total responded with affirmative answers. This implies that the villagers are very active socially.

Households Nos.10, 11, 24, 26, 27 and 28 are participating in the village panchayat. The head of household No.27 is called a special guest or honorary member of the panchayat. This family unit owns 11 acres of land, but is cultivating a gross area of 22.68 acres. It grows tobacco, wheat and potatoes, and the cash income from the sales of these products is 11,000 rupees for tobacco, 4,000 rupees for wheat and 1,800 rupees for potatoes. (16,800 rupees in total, or the largest earnings among all 28 households). The household head said he is more than 100 years old, and fulfilled matriculation. His family belongs to the Bhumihar Brahmin caste, and possesses 3 ploughes purchased in 1979. It also purchased a bicycle in 1978.

Household No.10 owns only 1 acre of land, but cultivating a gross area of 2 acres. A cash income is earned from the sale of milk, and it is not such a wealthy household. As mentioned earlier, its head is a college graduate (B.A.) aged 40, and a member of the Koeri caste which status appears to have helped him obtain the post of village panchayat chairman.

As previously mentioned, the head of household No.11 is a Brahman priest. He is a 35 year-old high school graduate. It appears that he was elected as a member of the panchayat because of his youthful characteristics.

Household No.24 possesses 9 acres of land and cultivates a gross area of 16 acres of land. Rice, wheat and maize are the main crops, and the income from the sales of these products is only 2,000 rupees. This family belongs to the Kushwaha caste or a faction of the Koeri. Its head is 55 and is a primary school graduate. He is a member of the panchayat as well as the cooperative. He purchased a diesel/electric pump in 1981 and 2 ploughs in 1983. He also purchased a hand pump in 1972. Furthermore, he purchased a farming implement called boarding in 1978 and 1982. This fact shows that he is a very production-minded farmer. In addition, he purchased a bicycle in 1974 and 1978, 2 watches in 1974, a watch in 1979 and a radio in 1979. This fact shows that he is economically aggressive, but we wonder, however, why he had been able to spend so much money on production equipments as well as semi-durable consumer goods with a cash income of only 2,000 rupees from the sales of his farm products. There are many possible explanations, but this shall be identified at a later date. At any rate, the household's expenditures have been increasing since 1974. It should be noted that this coincides with the pace of the introduction of high-yielding varieties of seeds into the village. He may have been elected as a member of the panchayat because he was so active in the economical sense. His household, which includes his son, aged 32, and his wife, takes a negative attitude toward family planning.

Household No.26 owns 10.08 acres of land, and cultivates the total of 37.36 acres of land. It produces mainly tobacco, maize and rice and the income from the sales of these products is 4,000 rupees for tobacco, 4,000 rupees for maize and 1,500 rupees for rice (9,500 rupees in total, which is relatively low for the amount of land cultivated). This household belongs to Bhumihaar Brahmin caste, and its head is a college graduate. Aged 62, he was previously engaged in a job related to law enforcement. He also published a book on the philosophy of life. The household's production equipments include a tractor (shared with other farmers, and purchased in 1981), a diesel/electric pump (purchased in 1968), one plough (purchased in 1974) and a hand pump (purchased in 1974). Its consumer durables include 2 bicycles (purchased in 1981 and 1983), 2 radios (purchased in 1971), a sewing machine (purchased in 1971), 2 electric fans (purchased in 1971 and 1982) and 2 cassette recorders (purchased in 1980 and 1982). His brick house is very large, and in the backyard there is a gobal gas plant built by using a loan of more than 4,000 rupees from the government. The household head seems to have been elected as a member of the village panchayat because of his economic power and strong leadership qualities. He is also extensively engaged in commercial activities.

Household No.28 owns 27 acres of land and is cultivating the total of 54 acres. It produces mainly tobacco, wheat and sugarcane, and its income from the sales of these goods was 4,000 rupees for tobacco, 3,000 rupees for wheat and 6,000 rupees for sugarcane (13,320 rupees in total). It is a member of the Koeri caste, and the head is 60. His educational background is unknown, and it appears that he was elected as member of the village panchayat mainly as a result of his economic power.

Household Nos.1,9,10,11,15,19,23,24 and 25 are members of the cooperative. They own 0 acre, 0.9 acres, 1 acre, 15 acres, 2.5 acres, 2.8 acres, 6.3 acres, 9.0 acres and 9.0 acres of land, respectively. We were unable to obtain information explaining the major activities of the cooperative.

5) Mutual Aid Practices in the Village

The village's mutual aid practices are divided into daily life-related ones, production-related ones and others. The daily life-related ones are mostly related to ceremonial occasions such as marriage and funeral and the presence of this type of practice confirms the continuance of a traditional social system within the village.

Next let us take a look at production-related mutual aid practices.

During the farmers' busy season, the exchange of labor is widely practiced in the village. Of the 18 respondent households, 12 replied that they engage in such a practice, but only 2 households referred to how it is practiced, i.e. whether it is conducted exclusively within a family or among relatives, and whether it is practiced only during the busy season or throughout a year. Furthermore, 2 households said they exchange work cattle.

Other mutual aid practices are primarily villagers' voluntary activities centering around the maintenance and management of their common property (14 households referred to these activities). Considering the fact that the village is located relatively close to the central town in the District and also near to the main road, the presence of this type of activity in the village was a heart-warming discovery for us. The market mechanism is undoubtedly penetrating into this village, but few people left the village to seek employment elsewhere. This may be partly due to the urban "pull factor" still not being strong enough and partly because the villagers grow such profitable products as tobacco, wheat, corn, sugarcane, and so on. (They can depend upon the near-by Rajendra Agricultural University for aid and guidance). In other words, it appears that the village enjoys its capability to sustain the existing population vis-a-vis the penetration of market mechanism as well as the present rate of

population growth.

The continuance of these daily life-related and production-related mutual aid practices in this village implies that the village people have accumulated experiences and knowledge of mutual consultation and joint actions vis-a-vis exogenous factors. It will, therefore, be necessary to conduct further surveys in the mutual consultative practices among the villagers with the object of identifying the relationship between mutual consultation practices and the effective use of government assistance.

6) Farmers' Spending Pattern

Table 2-1 presents data on the spending pattern of Morsand Village farmers. From this table, it can be clearly understood that the farmers' spendings, be it on production assets or durable consumer goods, were quite conspicuous in particular years.

Their spendings were particularly heavy in 1969, 1974, 1979, and 1981 onward.

The fact means that, in conducting a survey on farmers' household expenditure, it is necessary to collect data on a time series basis. In this survey, however, we could not do this due to the short survey period.

One conjecture is that the introduction of high-yielding varieties of rice and wheat into this village in 1966-67 brought about its actual economic impacts in 1968-69. However, it could not sustain its impacts in the following years till 1974 droughts, decline in the prices of agricultural goods and the unfavourable terms of trade between the manufactured and agricultural goods until 1978-79 when the village was favoured with good weather, the government's price policy, improvement in agricultural financing and improvement in the prices of chemical fertilizers. Thus, the first oil crisis was successfully dealt with. In 1980, the second oil crisis hit the village. And again in 1981, the village economy improved as a result of the government's rural development programme as well as improved agricultural financing. This conjecture may be invalid because we could not closely examine the farmers' household and production expenditure. But in 1969, 1974 and 1979, when the Morsand Village farmers' spendings were very conspicuous, the farmers of Mukhalan Village of Haryana, which is hundreds of kilometers away from Morsand Village, also spent conspicuously. How should we explain this concurrence? In 1981 as well the farmers' spending was extremely heavy. This may be due to the Green Revolution beginning to have effect not only on rice and wheat but also on bajra, tobacco and raw cotton. And this placed farmers in an advantageous position regarding net return (profitability) from the farm products. We have yet to confirm this point, but will attempt to do so by collecting more data in the future.

Table 2-1 Physical Goals in New 20-Point Programme
(1984-85) State of Bihar

	Unit	Goal
1. (A) Creation of additional irrigation potential	1,000 ha	335.0
(B) Dryland farming (Micro Watersheds)	places	350
2. (A) Production of pulses	1,000 tonnes	850
(B) Production of oil seeds	1,000 tonnes	143
3. (A) No. of beneficiary families under IRDP	houses	352,200
(B) Employment generated under NREP	100,000 man-day	430.00
(C) RLEGP (programme for guaranteeing jobs to the landless)	100,000 man-day	392.15
4. Distribution of surplus land	acres	27,850
5. (Omitted)		
6. Bonded labour to be rehabilitated	persons	1,500
7. Families to be assisted		
(A) S.C.	families	300,000
(B) S.T.	families	125,000
8. Drinking water - problem villages to be covered	villages	3,700
9. (A) House sites to be allotted	sites	17,960
(B) Building aids	villages	--
10. (A) Slum population to be covered	persons	40,000
(B) Housing for economically weak section	houses	10,000
11. Rural Electrification		
(A) Villages to be electrified	villages	3,000
(B) Pump-sets to be energized	sets	25,000
12. (A) Trees to be planted	10,000,000	12.50
(B) Bio-gas plants to be installed	places	4,500
(C) Do KVIC	places	6,000
13. Sterilization	cases	571,000
14. (A) Primary health care centers to be built	centers	20
(B) Sub-centers to be set up	centers	600
15. ICDS blocs to be built	places	39
16. (A) Registration of age group of 6 to 14 years of age	persons	717,000
(B) Adults to obtain literacy	persons	700,000
17. Fair price shops to be built	shops	656
18. Small-scale units to be built	units	10,000

Source: Ministry of Information and Broadcasting, Government of India, 20 point programme: Physical Targets, 1984 - 85, pp. 54 - 55.

Table 2 - (1)

Villagers' Participation in Rural Development Programmes
and Other Community Activities

Cluster	Scale of and owned	Household No.	Area of land owned (acres)	Gross cropped acreage (acres)	Participation in the rural development programme	Villagers' general appraisal of the rural development programmes (Degree of usefulness V, B, N)	Reasons for not participating in the programmes	Participation in community activities	Capacity
I	0	1	0		N	V	Shortage of information	Y	Co-op member
		2	0		N	B	Exploitation	N	
		3	0		N	N	Exploitation	N	
		4	0		N	B	Not interested	N	
		5	0		N	B	Difficult procedure	N	
II	0. - 2.5 acre	6	0.09	0.48	N	B	Difficult procedure	N	
		7	0.25	3.84	N	B	Exploitation	N	
		8	0.50	2.48	N	B	Difficult procedure & shortage of information	N	
		9	0.90	2.75	N	V	Difficult procedure & shortage of information	N	Co-op member
		10	1.00	2.00	Y(IRDP '81 Rs. 5000)	B	NA	Y	Chairman of Panchayat & Co-op member
		11	1.50	3	Y(Loan for tube well Rs.7200 Fertilizer,Seeds)*1	B		Y	Panchayat member
		12	1.80	3.72	N	N	Exploitation	N	
		13	2.00	3.44	Y(1984.0)	B	Exploitation & shortage of information	Y	
		14	2.25	3.5	N	V	Exploitation	N	

Cluster	Scale of land owned	Household No.	Area of land owned (acres)	Gross cropped acreage (acres)	Participation in the rural development programmes	Villagers' general appraisal of the rural development programmes (Degree of usefulness V, B, N)	Reasons for not participating in the programmes	Participation in community activities	Capacity
III	2.5 - 5.0 acre	15	2.50	6.1		V		Y	Co-op member
		16	2.70	4.8	N	B	Difficult procedure & shortage of information	N	
		17	2.80	4.00	N	B	Unsuitable	N	
		18	2.80	8.12	Y	B *2	Exploitation	Y	
		19	2.80	7.92	Y	B	Shortage of information	Y	Co-op member
		20	4.50	8.7	Y (TRYSEM 1984)	B		N	
IV	5 - 10 acre	21	5.40	12.72	Y	B *3		Y	Other activities
		22	6.30	14.72	N	V	Limits on qualification	N	
		23	6.30	6.52		B	Unsuitable	Y	Co-op member
		24	9.00	16.00	N	B	Limits on qualification	Y	Panchayat member & Co-op member
		25	9.00	10.00	N	B	Difficult procedure	Y	Co-op member
V	10 acre +	26	10.00	37.36	N	B	Difficult procedure & exploitation	Y	Panchayat member
		27	11.00	22.68	N		Exploitation	Y	Panchayat member (Special guest member)
		28	27.00	54	Y	B		Y	Panchayat member

*1 Yield of 200 kg in the case not using fertilizers and HYV seeds.] Difference 400 kg
Yield of 600 kg in the case using fertilizers and HYV seeds.]

Improvement of standard of living as a result of (2).

*2 Desired cooperation is not obtained, but it was useful. Higher yeild was resulted.

*3 Still used.

(Abbreviation): Y = Yes; N = No or No use; V = Very beneficial; B = Beneficial.

Cluster	Scale of land owned	Household No.	Mutual aid practices			Interviewees			
			Daily life-related	Production-related	Others	Educational level	Age	Castes	Cash income (estimated)
III	2.5 - 5.0 acre	15	Maintenance of village property	Exchange of labour	Voluntary social service	MA	32		9,300
		16	Ceremonial occasions	Exchange of labour	Voluntary social service	P	65	Kushwaha	1,600
		17	Maintenance of village property Ceremonial occasions			H	42	Koeri	
		18	Ceremonial occasions, Maintenance of village property	Exchange of labour		7th	55	Kurmi	7,000
		19	Ceremonial occasions, Maintenance of village property	Exchange of livestock	Voluntary social service	I	55	Koeri	7,500
		20	Ceremonial occasions			M	28	Kurmi	11,000
IV	5 - 10 acre	21	Ceremonial occasions	Exchange of labour	Exchange of cattle force	M	65	Kushwaha	11,300
		22	Ceremonial occasions	*2		L	61	Bhumihar	7,500
		23	Ceremonial occasions Maintenance of village property			M	80	Koeri	3,000
		24	Ceremonial occasions	Exchange of labour		P	55	Kushwaha	2,000
		25	Ceremonial occasions		Voluntary social service	M	58	Kushwaha	15,400
V	10 acres +	26	Ceremonial occasions	Exchange of labour (only during peak season) *3	Family property	C	62	Bhumihar Brahmin	9,500
		27	Ceremonial occasions	Exchange of labour	Voluntary social service	M	100	+ Bhumihar	16,800
		28	Marriage occasion Maintenance		Voluntary social service		60	Koeri	13,320

Table 2-(2) Mutual Aid Practices among the Members of Mors and Village and Respondents' Socio-Economic Background

Cluster	Scale of land owned	Household No.	Mutual aid practices			Interviewees			
			Daily life-related	Production-related	Others	Educational level	Age	Castes	Cash income (estimated)
I	0	1	Ceremonial occasions			L	60	Mushhar (H)	3,264
		2	Ceremonial occasions			I	28	Muslim(mason)	1,580
		3	Ceremonial occasions			I		Maldah	
		4	No village property	Cooperation within family		I	35	Mallick(Sweeper. H)	
		5	Ceremonial occasions		Voluntary social service	I	60	Dusad (H)	
II	0 - 2.5 acre	6	Ceremonial occasions	Repairing of road Exchange of labour		I	55	Dusad	2,100
		7	Maintenance of village property		Voluntary social service	(I)	50	Taiwa(Paswan)	
		8	Ceremonial occasions, Maintenance of village property	Exchange of labour		I	75	Dusad	3,596
		9	Ceremonial occasions, Maintenance of village property	Exchange of labour	Voluntary social service	I	65	Koeri	1,734
		10	Ceremonial occasions, Maintenance of village property		Voluntary social service	BA	40	Koeri	1,000
		11	Ceremonial occasions, Maintenance of village property	Exchange of labour	* 1	H	35	Brahmin (Sanyasi)	
		12	Ceremonial occasions, Maintenance of village property	Exchange of labour	Voluntary social service	9th	30	Koeri	2,500
		13	Ceremonial occasions, Maintenance of village property	Exchange of labour	Labor service	I	98	Koeri	800
		14	Ceremonial occasions		Construction of road	L	70	Koeri	7,000

*1 Mutual aid practice of No. 11

- a) Need for mutual aid for the well being of village, regardless of caste, recognized.
- b) Hostility exists but mutual aid is practiced when necessary.
- c) Case -- Two years ago an old woman died unnoticed by anybody. All villagers came to her home and conducted a funeral service. Mutual aid and trust among members were seen while building bridges, roads and school buildings.

*2 Mutual aid practices among 3 families. Exchange of labor during peak season among family members and among families. Exchange of cattle force is also practiced. To maintain village common property, people cash or materials or labour.

*3 Assets shared by families
Tractor, house, buffalo, mango trees and plantations.

He employed labourers for light workloads during non peak seasons to help them earn a living. He issues their ID cards. He participates in ceremonies.

Exchange of labor among families that live apart, only during peak season.

(Educational Level)

Abbreviation: I = Illiterate,

L = Literate,

P = Upto 5 standard,

M = Upto 8 standard,

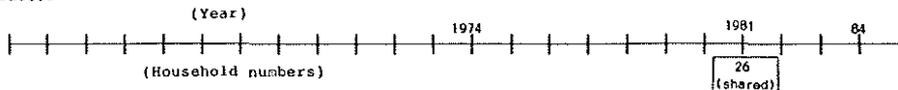
H = 10 - 12 standard (matriculation)

G = Graduate and above

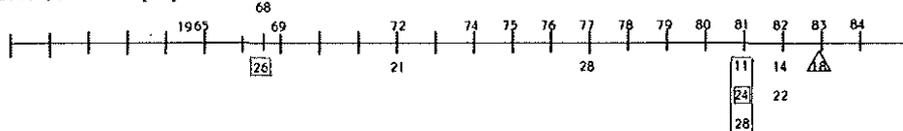
Fig. 2-1

Morsand Villagers' Major Expenditure by Year-wise and Commodity-wise

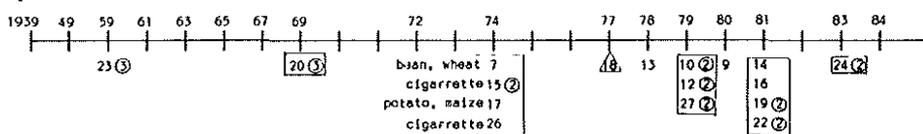
1) Tractor



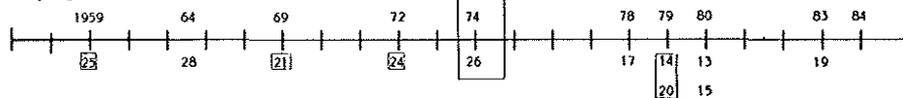
2) Diesel/electirc pump



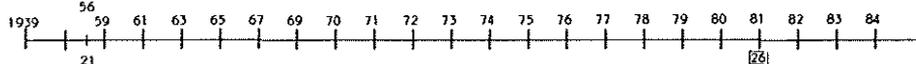
3) Spade



4) Hand pump



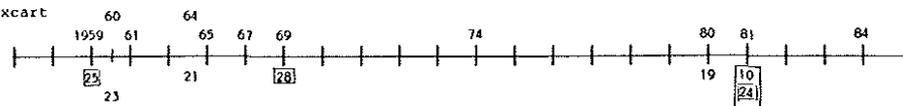
5) Cultivator



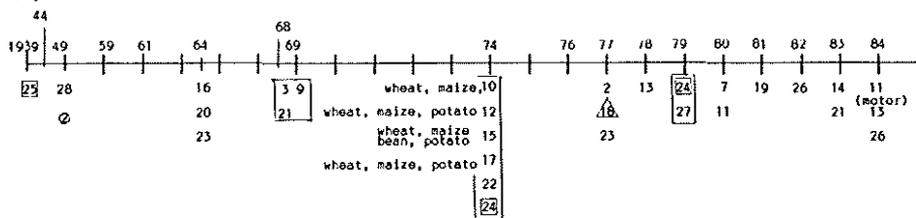
6) Other farming appliances



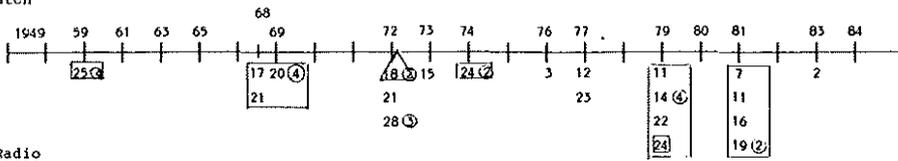
7) Oxcart



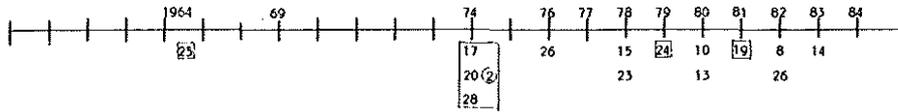
8) Bicycle



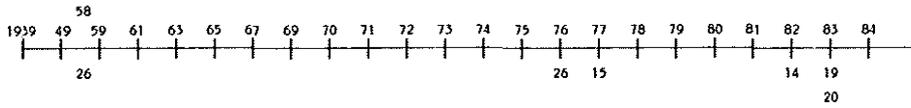
9) Watch



10) Radio



11) Sewing machine



12) Others



3. Case Study of Rural Development (2)

-- Rural Development Programme and Farmers' Responses
to It in Mukhalan Village, Hissar District, Haryana

(1) Rural Development in Haryana State

According to the physical goals (1984-85) in the new 20-point programme, the number of families benefited under IRDP is estimated as 55,800, the number of jobs to be created under NREP is 1,666,000 man-days and the number of jobs to be created in RLEGP 1,535,000 man-days.

The amount of surplus land to be distributed as part of implementation policy of land reform is as small as 2,000 acres.

In addition, we obtained target figures for the construction of drinking water supply facilities, trees for reforestation, and so on.

Moreover, in the entire Hissar District, the number of actual beneficiary families from IRDP during the year 1983 - 84 was 9,633 (of which scheduled castes account for 31%). When we compare the number of actual beneficiary families, excluding scheduled caste with the goal (1984-85) for the same, we arrive at an achievement rate of 51.8%. Similarly, when we compare the number of actual beneficiary families from NREP with the goal (1984-85), we get an achievement rate of 48.2%.

Financial aid was extended to the families belonging to scheduled caste through the Department of Dairy Farming Development, Department of Fishery, Department of Stock Raising, Department of Industry, Section of Agriculture of Department of Integrated Rural Development, and Harijan Welfare Public Corporation. When we compare the results for 1983-84 with the results for January - August 1984, we cannot avoid seeing the poor performance for 1984. In contrast, the results of reforestation and construction of biogas plants are relatively good.

We have observed the results of the 20-point programme in Hissar District for January - August 1984. Next we will study the current situation of rural development and its related problems in Mukhalan Village.

(2) Case of Mukhalan Village, Hissar District

A sample of 30 households was obtained for Mukhalan Village. As far as the current state of the rural development programmes in this village is concerned, we could see no significant results produced by IRDP, NREP or TRYSEM. Only in another village of Hissar District, were we able to see noteworthy results from NREP -- the embankment for

a pond, the construction of the outside walls of a school building. We also visited a vocational training room where women are trained to operate sewing machines.

We thus focused our attention on how the Village Level Worker (VLW) and the Deputy Block Extension Officer (Dy.B.E.O.) maintain contacts with the farmers, how they instruct the farmers in the terms of production, how they instruct the farmers in the procedures for receiving loans and the government's subsidies, how the farmers find the rural development programmes and the reasons for their nonparticipation in the programmes, rather than reviewing the current state of IRDP, NREP, and so on.

We also investigated the types of social activities the farmers are willing to engage in.

Furthermore, we conducted an investigation on what forms of traditional mutual aid practices remain in the village today, and the significance of their continuing such practices.

Lastly, we investigated the respondents' educational level, age, caste, cash income, land owned and cropped acreage, as well as how each of these factors related to their willingness to participate in rural development programmes. The results are presented in Table 3-1.

1) Participation in Rural Development Programmes

Of the total of 30 respondents, 23 replied to our question concerning this item. And of the 23 respondents, only 2 replied that they were participating in the programmes. Moreover, one of the two said that he was participating in the programmes as the village watchman. But, this is not "participation" in the true sense of the word.

Household No.27 clearly indicated "participation." The head's socio-economic background is: aged 40; belongs to the Jat, the dominant caste of the village; his educational level being "literate" meaning he can read and write; owns 12 acres of land and has planted acreage of 14.9 acres; earns a cash income from the sales of farm products (5,000 rupees from raw cotton, 2,000 rupees from wheat, 2,000 rupees from other goods and 500 rupees from bajra -- 11,000 rupees in total; the lowest of 5 respondents in the cluster of land holding exceeding 10 acres.) In comparison to households No.29 and No.30, his cash income is less than half. The respondents in this cluster, who did not clarify their degree of willingness to participate in rural development programmes, did not respond to our question regarding the reasons for not participating in the programmes. We thus may assume that they are participating in such programmes in some form or another.

The fact that 21 of 23 respondents specifically indicated "nonparticipation" sets us indoubt over the significance of the government's rural development policy. Or does this mean that Mukhalan Village is so affluent that the government decided it was not qualified for such programmes?

2) Farmers' Perceptions to Rural Development Programmes

Next let us examine the opinions or perceptions of the Mukhalan Village farmers toward the rural development programmes in existence.

None of the 23 respondents specifically replied, "Useless." 13 respondents replied, "Beneficial," and 11 or about 50% of the total number of respondents replied, "Very Beneficial". This means that many of the villagers possess direct or indirect knowledge of the rural development programmes and would actively participate in them if given the opportunity. However, this conjecture is not applicable to the farmers belonging to the land clusters of 5 to 10 acres. We will refer to this point later.

3) Reasons for Not Participating in Programmes

Some of the respondents did not clearly indicate their reasons for not participating or ignored the question altogether. Noteworthy responses for not participating were "Difficult procedure" (3 households), "Shortage of information" (3 households), and "Unnecessary" (4 households). Middle-class farmers with 4 to 7 acres of land cited "Unnecessary." They all belong to the Jat caste and are relatively young. With the exception of one, all others completed matriculation. They are engage primarily in the production of cotton and wheat.

It seems they favourably compare with VLWs in knowledge and experience. This may be the reason why they consider rural development programmes "Useful" but "Unnecessary" for themselves. It could be that have pride in themselves and they are independent-minded farmers or because the rural development programmes are excessively stereo-typed as decided by the center.

4) Village Level Workers (VLW) and Deputy Block Extension Officers (Dy. B.E.O.)

Survey data arranged in the form of the tables will illustrate an interesting pattern of how government officials approached the farmers in the village.

It appears junior-ranking government officials determine their approach according to the farmers' status.

a) Not only VLW but also Dy.B.E.O. pay visits to landless farmers (households Nos.1-9). They supplied household No. 4 with a buffalo and financial aid in addition to guidance regarding the merits of the rural development programmes. Household No.7 represents the only Jat farmer who belongs to this luster. His annual wageearning is 8,870 rupees, which is exceptionally high. Both Dy.B.E.T. and VLW visited his home and instructed him how to increase production and how to get benefits out of rural development programmes. As a result, he has obtained a milk cow and has further been given opportunities to participate in government training programmes. In the case of household No.9, Dy.B.E.O. provided him with guidance concerning the benefits of the rural development programmes, and further provided him with funds and a cart. In the case of household No.1, the secretary of the panchayat visited his house to give him guidance on the benefits of the rural development program. His present house was furnished through the intermediary of the secretary, of the village panchayat, He also received a loan to breed goats.

The above-mentioned cases pertaining to the cluster I show the manifestation of the impacts of the government's social policy measures incorporated into the 20-point programme.

In contrast, farmers possessing 1 to 2 acres of land have never been visited by VLW or Dy. B.E.O. They are farmers who have been neglected so to speak. Most of them belong to the Khatri caste, (with the exception of a Brahmin and a Jat).

These farmers have also show a negative response to the family planning.

b) It appears that the VLW and Dy.B.E.O. frequently visited farmers who own 2.5 to 5 acres of land, offering them guidance on production and information with regard to benefits available from the rural development programmes. As a result, all of these farmers with the exception of household No.16 are given priority in purchasing farming implements, seeds, fertilizers and buffaloes.

c) The VLW visited farmers who own 5.0 to 10.0 acres of land, but Dy.B.E.O. has never made a visit to them. With all the VLW's guidance on production and information regarding the benefits available from the rural development programmes, they have been granted no significant benefits from the rural development programmes. This is the most striking difference when compared to the cases of farmers who have 2.5 to 5 acres of land and those who own more than 10 acres. Except for one household, all other households belong to the Jat caste. This may be because, as previously mentioned, they are rather independent-minded farmers, who are not willing to depend on government aid.

d) Lastly in the case of the farmers with more than 10 acres of land, not only VLW but also Dy.B.E.O. actively visited them, giving them guidance on production as well as information regarding the benefits available from the rural development programmes. As a result, they have been in a very advantageous position to obtain farm implements, fertilizers and seeds. Furthermore, they were given opportunities to participate in government training programmes. With the exception of a single household, all others in this group belong to the Jat caste.

3) Agricultural production

We did not have enough time to investigate the changes in production and cropping patterns in time series. Thus, the data we have obtained are not comprehensive. However, on the basis of this table, we may conclude followings in relation to production.

a) Rate of Land Use

When we compare the total area of land owned by the respondents with that of gross cropped acreage, we arrive at an estimation on the average rate of land use being approximately 135%. This means that the land is used relatively efficiently in this village.

It will be necessary to investigate the chronological changes in cropping patterns and the prices of farm products, and their interrelationship.

b) Sales of the Farm Products

The ratio of the marketing out of the total farm products varies by household. As far as the respondents in this survey are concerned, raw cotton is the major produce of this village followed by wheat, bajra, pulses and fodder. What percentage of the output of wheat and bajra is consumed domestically is unknown. At any rate, according to our survey, only those farmers with 2 or more acres of land can earn a cash income exceeding 1,500 rupees on the market.

The larger the area of land owned, the larger the cash income to be earned from the sales of farm products. But the amount of cash income does not accurately reflect that of the actual cropped acreage.

c) Tenanted Land?

Households Nos.12, 13 and 18 were found to have no plough at hand. This implies that they are dependent on others for preparing their land for cultivation. It may be possible for them to borrow ploughs from others when necessary to cultivate their farms by or to entirely themselves to depend on others for preparation of land. Or it may also be possible that they lease out their farms land and obtain from others the crops produced as rent. We could not confirm

this point during our survey period.

d) Farming Wages

Households Nos.18 through 30 indicated their perception of farming wages. This does not mean that they have earned the wages, nor does it mean that they have paid that much of wages to their agricultural workers. This means that with different wages (such as goods, meals, tea) paid for different types of farm work, the total wages are estimated with multiplication by the number of days, the product will represent the total wages they should have paid for the labour received.

The agricultural wages of households No.1 through 9 (landless farmers) range from slightly more than 2,000 rupees to just over 8,000 rupees -- about 4,000 rupees on the average. This amount of money may be taken as almost equivalent to the minimum cost of living per average sized family in the village. From this we may make a bold statement that each household consumes not less than 4,000 rupees' worth of products domestically and sells the remainder on the market. We are anticipating further surveys for the answer.

4) Farmers' Spending Pattern .

We may determine what products and services the farmers are most interested in, and, at the same time, investigate those factors that make the farmers' consumption possible by looking into their pattern of spending.

Reviewing the findings of our survey on Mukhalan Village farmers, we have come across some interesting characteristics regarding their spending pattern.

First, there is a characteristic common to spending patterns, according to the size of land holdings. Secondly, there appears to be a 5-year cycle in terms of the increase in the farmers' expenditure for farm implements and semi-durables.

Household No.24 purchased a straw cutter, an ox cart and a bicycle in 1969, the first year when its consumption expenditures began to increase dramatically. It purchased a plough, watch and radio in 1973 and 1978. Its annual cash income from the sales of farm products, however, was only 7,300 rupees. Household No.26 has spent much on farm implements (3 ploughes, a disc harrow, another farming implements and an ox-cart) as well as semi-durable consumer goods (a watch and a radio). The increase in this household's expenditures in and after 1979 may mean that toward 1979 its savings had increased sharply or its income had risen dramatically due to the price hikes of farm products. Or it may have been possible for the household to receive a low-interest loan from a rural development programme. In

this respect as well, we must continue our study.

5) Mutual Aid Practices in the Village

In traditional village, it is not unusual to find daily life-related and/or production-related mutual aid practices. Underlying this mutual aid system is a single sphere of daily life and economy (village). In it everyone knows everyone else. Everyone is interested in everyone else's domestic affairs. And there is a social code of behavior that is applicable to each and all of its members. In recent years, however, it has become increasingly difficult for a village to be completely self-sufficient as a unit of daily life and economy. The market mechanism has been exerting pressure on the rural community mechanism, which is being gradually eroded and replaced by the principle of the market economy. Furthermore, logic of the government's administrative intervention tends to accelerate the desolution processes of a traditional rural community. The transfer to outsiders of land, labour and capital, which once represented a solid base of life in the village has become increasingly rapid due to external pressures.

While the village's base has been tremendously eroded, people living there have held on to their now mutual aid practices in some way or other. Now let us examine Table IV-3-4.

In the case of Mukhalan Village, the daily life-related mutual aid practices such as jointly organizing ceremonies, still remain. All villagers, regardless of caste, age, sex and economic status, appear to participate in the village's festivals and ceremonies. But of households Nos. 1 through 9 (landless farmers), 6 did not specifically reply to this question. This may mean that these farmers belonging to the lowest caste in their society (untouchables) are unable, for reasons outsiders like ourselves cannot understand, to participate in these festivals and ceremonies. Or their difficult living conditions may be preventing them from participating in such social events.

Regarding the production- and or economy-related mutual aid practices, it seems that the exchange of labour or services is widely practiced among families, relative and neighbors in the village.

Particularly among households No.18 through No.25 (with 3 to 7 acres of land) the exchange of various types of labour (cultivating, harvesting, threshing, planting, weeding and irrigating) appears to be a common custom.

Landless household No.5 specifically cited the existence of mutual aid practices in cultivating, harvesting, threshing, irrigating and house construction. This may be because their members have direct knowledge of these mutual aid practices or because they have actually

been engaged in these practices as auxiliary workers. Its head comes from the Naik caste, and may be offering labour to another Naik caste family (perhaps his relative's or brother's family) as one form of mutual aid. Another Naik caste household (No.2) is also a landless agricultural worker's family. Therefore, household No.5's mutual aid practice has nothing to do with that of household No.2.

Furthermore, mutual aid practices by way of exchange of agricultural machineries inputs goods is observed among the large-scale farmers possessing 10 acres or more of land, its precondition being mutual trust and considerable affluence.

In comparison to the case of Bihar, the importance of maintaining and managing the village's common property appears not so keenly felt. Only household No.17 mentioned this practice. Also "voluntary social activities" were cited only by household No.7 (Jat). This implies that voluntary social activities for maintaining and managing the village roads, schools, bridges, ponds and meeting places are seldom observed in this village. This may be symbolic of the fact that the entire village's cohesion or the villagers' interdependency among the villagers for their daily life and production (economy) has gradually waned and that their activities outside the village have become more and more meaningful. It may follow that the village's autonomy or the mechanism of mutual consultation among the members is losing ground. The fact that Mukhalan Village is located only 10 km away from the District capital and that a main road runs across the village may have acted as an accelerating force to this trend.

6) Rural Development and Agricultural Production

Rural development (in a broader sense of the term) has helped increase the number of irrigation facilities, village roads, means of transport and markets, and has also created new jobs and new income sources. This will increase agricultural production and demand for farm products. On the other hand, it is difficult to have a quick confirmation concerning the impact the instruction and guidance by VLM and Dy.B.E.O. have had on the increase of agricultural production and the farmers' incomes through easier access to the suppliers of farming implements, fertilizers, seeds, and so on, and opportunities to participate in government training programmes.

A more scrupulous and long-range survey is necessary. Nevertheless, rural development may have triggered a chain reaction -- availability of farming implements, fertilizers and seeds, improvement of production techniques, increase in income, enhancement of the quality of life and the spread of family planning. (*4)

It is still open to question whether the rural community can, as an integrated society, transform itself keeping pace with the changes in government policies, technological factors and market forces. It

is also necessary to closely investigate who will become the leader in changing the social structure of the rural community. Senior members of the dominant caste may function as leaders. In the case of Mukhalan Village, senior members of the Jat caste appeared to play the role of such leaders. We have yet to confirm this point.

What role can senior members of the Jat caste play toward the members of other castes in the village? Will a single predominant caste monopolize government financial aid? There is disparity in the scale of land owned even in a single caste. Will this fact facilitate friendly cooperation among various castes? Within the Jat caste there is a disparity in terms of knowledge, age, new techniques, and so on. Will this trigger a changeover from the traditional hierarchy to a more democratic socio-economic structure?

We think it is necessary to determine the answers to these questions in our future surveys. When the answers to these questions are found, we believe some clue regarding the most efficient way of utilizing the limited government financial aid will also be found.

Notes

- (*1) The 1971 Agricultural Census shows that in the Darbhanga District (part of the former Darbhanga District and Monghyr District) the farmers with less than 0.3 ha of land accounted for 59%, and those with land of less than 1 ha accounted for 22% out of the total. It appears that at the present the size of farms is declining. In Bihar, the average size of a farm was 1.11 ha in .
- (*2) The 1971 Census has the tendency to show a higher percentage of farm workers.
- (*3) In 1981, the ratio of the number of females to 1,000 males was 934 nationwide, 870 for Haryana, 879 for Bengal and 948 for Bihar.
- (*4) It appears that in Mukhalan Village's rural development -- particularly implementation of family planning -- that effects on farmers with more than 10 acres have been felt.

Table 3-1 Monthly Progress Report 20-Point Programme in Hissar District for the Month of August, 1984

Point Item	Unit	Actual 1983-84	Target	1984 - 85			Remarks
				Achiv. during the month	Cummulative Achievement	Percentage	
3(a)	I.R.D.P.	No. of i) S.C 2973) families) others: 6660) benefitted)	6660	314 2027	434 3419	58.4	
(b)	N.R.E.P.	Mandays(No.)	2.03lacs	2.206	23767	106312	48.2
*(c)	R.L.E.G.P.	-do-	-	..	1847	18912	
*4.	Surplus land allotted	Acres	33	..	-	-	- Only 12 Hects Surplus land remains for distri- bution.
5.	Minimum wages for Agricultural la- bourers	Nos.	Wages are paid as per act.				
6.	Bounded labour fami- lies reha bilitated	No.	No such problems exists				
7.	Families economi- cally assisted.S.C. only						
	i) Dairy Dev. Deptt.	No.	67	37	7	21	56.8
	ii) Fisheries Deptt.	No.	25	25	-	5	20.0
	iii) Animal Husbandry	No.	294	200	35	58	29.0
	*iv) S.C. & B.C. Deptt	No.	20	..	-	-	-
	v) Industries Deptt	No.	283	230	8	23	10.0
	*vi) Integrated Rural Dev.(Agri. Deptt.)	No.	2973	..	314	434	-
	*vii) Haryana Harijan Kalyan Nigam.	No.	3403	..	106	264	-Rs.11.21 lacs have been disbursed as loan/sub.
	*viii)Revenue	Surplus land allotted to S.C. families only.	4	..	-	-	-

Point Item	Unit	Actual 1983-84	1984 - 85				Remarks
			Target	Achiv. during the month	Cummulative Achievement	Percentage	
**8. Drinking water problem	No. of villages	21	61	2	2	3.3	
9 a) House site allotted	Nos	5136	5	-	-		- According to new survey 5136 plots have been allotted to weaker sections up till now out of 5183 eligible persons.
9 b) <u>Const. Assistance provided</u>							
*i) Housing Board	No.	-	..	-	-		
ii) Cooperation	No.	20	100	41	41	41.0	
**iii) S.C. & B.C.	No.	152	130	-	-	-	
*10 a) Slum population covered	No.	7180	..	-	2390	-	
b) E.W.S. House provided	No.	228 LIG houses under Const.	68	-	-		- 65 No. Rural houses layout work is in Progress.
11 Rural electrification	-	All the villages have been electrified.					
b) Pump-sets energized	No.	717	800	40	235	29.4	
12 a) Trees planted	No in lacs	103.61	94.54	20.69	56.90	60.2	
b) Bio-gas plants set up	Nos	450	300	17	130	43.3	184 Biogas plants are under Const.
13 Family Planning sterilization	Nos	13465	12511	542	2735	21.9	
14 a) P.H.C. Esttb.	Nos	-	-	-	-	-	
**b) Sub-Center set-up	Nos	19	48	-	-	-	
15 I.C.O.S. Block sanctioned	Nos	1	No target allotted				At present three blocks are sanctioned out of which two blocks are functioning.

Point Item	Unit	Actual 1983-84	1984 - 85			Remarks		
			Target	Achived during the month	Cummulative Achievement		Percentage	
17	New fair price shops opened	Nos	35	10	-	2	20.0	
18	Village & Small Sciae Units set up.	Nos	510	575	35	144	25.0	

* Targets not received.
** Targets are provisional.

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Table 3-2 Mukhalan Villagers' Participation in Rural Development Programme and Their Social Activities in the Village

Cluster	Scale of land owned	Household no.	Area of land owned (acres)	Gross acreage cultivated (acres)	Participation in the rural development programmes	Farmers' general appraisal of the rural development programme (Degree of usefulness V, B, N)	Reasons for not participating in the programmes	Visits by VLW and DyBEO	Purposes of visits by VLW and DyBEO	Benefits	Participation in the village activities	Capacity	
I	0	1	0					Panchayat Secy	Loan	Loan for housing and goats			
		2	0		N		Difficult procedure				N		
		3	0		Y	V	(As the village's watchman)				Y	(As a watchman)	
		4	0		N	V		DyBEO	Guidance as to benefits	Buffaloes (grant)	N		
		5	0		N	B	Shortage of information	VLW			N		
		6	0		N	B			Instruction on production and benefits	Milking cow			
		7	0		N	V		VLW, DyBEO				Y	Member of co-op
		8	0		N	V						N	
		9	0		N	V			DyBEO	Loan and aid	(Camel wagon)	Y	Member of panchayat
II	0 - 2.5 acre	10	1	2.0	N	V					N		
		11	1	2.0	N	V	Shortage of information				N		
		12	1	*1 1.0	N								
		13	2	*2 2.5	N	V	Shortage of information					N	
		14	2	4.0	N	V	Too busy					N	

*1 (0.5 tenancy)
*2 (tenant land)

Cluster	Scale of land owned	Household no.	Area of land owned (acres)	Planted acreage (acres)	Participation in the rural development programmes	Farmers' general appraisal of the rural development programme (Degree of usefulness V, B, N)	Reasons for not participating in the program	Visits by VLW and DyBEO	Purposes of visits by VLW and DyBEO	Benefits	Participation in the village activities	Capacity	
III	2.5 - 5.0 acre	15	2.5	4.5				DyBEO	Guidance as to benefits	Farming implements fertilizers			
		16	2.5	4.5	N	V	No time to spare				N		
		17	2.5	5.0	N	B	Limited qualification	VLW, DyBEO	Instruction on production and benefits	Fertilizers, seeds, Training	N		
		18	3	6.0	N	B		DyBEO	Guidance as to benefits			Y	
		19	4	6.0	N			Unnecessary	DyBEO	Guidance as to benefits	Farming implements fertilizers	N	
		20	4	6.0			B		VLW, DyBEO	Instruction on production and benefits	Buffaloes, Training	Y	
IV	5 - 10 acre	21	5	7.25	N	B	Difficult procedure	VLW	Guidance as to benefits		N		
		22	5	9.0	N	B	Unnecessary	VLW	Instruction on production and benefits		N		
		23	5	6.5	N	B	Unnecessary	VLW	Guidance as to benefits		N		
		24	7	10.5	N	B	Unnecessary	VLW				N	
		25	7	10.5	N	B	Difficult procedure	VLW	Guidance as to benefits, bank loan Rs 1 - 3000			N	

Cluster	Scale of land owned	Household no.	Area of land owned (acres)	Planted acreage (acres)	Participation in the rural development programmes	Farmers' general appraisal of the rural development programmes (degree of usefulness V, B, N)	Reasons for not participating in the programmes	Visits by VLM and DyBEO	Purposes of visits by VLM and DyBEO	Benefits	Participation in the village activities	Capacity
		26	10	18.5				VLM, DyBEO	Instruction on production and benefits	Farming implements, fertilizers, Training	Y	(Member of co-op)
V	10 acre+	27	12	14.9	Y	B		VLM, DyBEO	"	"	Y	
		28	12	20.5		B		DyBEO	"	"	Y	
		29	12	23				DyBEO	"	"	Y	
		30	13.5	16.7		V		VLM, DyBEO	"	"	Y	

(Abbreviation): N = No; Y = Yes; V = Very beneficial; B = Beneficial;

Table 3-3 Land Utilization, Realization of crops, and Agricultural Labor Wages of Surveyed Areas
In Mukhalan Village

Cluster	Sale of land owned	Household No.	Area of land owned (acres)	Caste	Planted acreage (acres)	Rough income by selling (rupee)				Agricultural labor wages (rupee)	Cash income (estimated) (rupee)	Participation in the rural development programs
						Bazilla	Wheat	Cotton	Others			
I	0	1	0	H						3,237		
		2	0	Naik						2,040		N
		3	0	H						4,032		Y
		4	0	Shami						3,010		N
		5	0	Naik						4,044		N
		6	0	H (Dhanuk)						3,213		N
		7	0	Jat						8,870		N
		8	0	H (Chamar)						3,696		N
		9	0	H (Chamar)						3,080		N
II	0 - less than 2.5 acre	10	1	Khatri	2.0	250			100		350	N
		11	1.5	Khatri	2.0	(180)					180	N
		12	1.5	Jat (0.5 for tenancy?)	1.0	(200)					200	N
		13	2	Brahmin (tenancy?)	2.5	(225)		(1,250)			1,475	N
		14	2	Khatri	4.0	250		1,500	300		2,050	N
III	2.5 - less than 5 acre	15	2.5	Jat	4.5	(300)	1,000	4,000	500		5,800	
		16	2.5	Jat	4.5	200	1,200	3,300			4,700	N
		17	2.5	Jat	5.0	(480)	(1,000)	3,000	500		4,980	N
		18	3	Nai (tenancy?)	6.0	200	300	1,000 (beans, feed)	(barber) 1,000	2,400	4,900	N

Cluster	Sale of land owned	Household No.	Area of land owned (acres)	Caste	Planted acreage (acres)	Rough income by selling (rupees)				Agricultural labor wages (rupee)	Cash income (estimated) (rupee)	Participation in the rural development programs
						Bazilla	Wheat	Cotton	Others			
III		19	4	Jat	6.0	500	500	4,000		7,328	5,000	N
		20	4	Jat	6.0	(450)	300	4,000	500		5,250	
IV		21	5	Khatri	7.25	(350)	(600)	1,500	2,600	5,265	5,050	N
		22	5	Jat	9.0	350	600	4,000	3,300	4,541	8,250	N
		23	5	Jat	6.5	200	1,500	3,000	900	2,520	5,600	N
		24	7	Jat	10.5	0	1,200	2,500	3,800	3,460	7,300	N
		25	7	Jat	10.5	400	0	3,000	4,800	3,153	8,200	N
V		26	10	Jat	18.5	0	2,000	12,000	2,000	5,200	16,000	
		27	12	Jat	14.9	500	2,000	5,000	2,000	5,141	10,100	Y
		28	12	Jat	20.5	500	5,000	10,000	2,000	2,512	17,500	
		29	12	Jat	23	1,000	5,000	15,000	1,500	2,512	22,500	
		30	13.5	Brahmin	16.7	1,000	5,400	15,000	2,500	4,954	23,900	

Source: Survey in September, 1984

N=Not participating.

Y=Participating.

H=Harijan (Scheduled caste)

Table 3-4 Mutual Aid Practices Still Conducted in Mukhalan Village and Respondents' Socio-Economic Background

Household no.	Area of land owned (acres)	Mutual aid practices			Respondents'			Farming Wage (ruppes)	Estimated cash income (rupees)
		Daily life-related	Production-related	Others	Educational level	Age	Caste		
1	0				P	37	Harijan (abbreviated as H)	3,237	
2	0				I	20	Naik	2,040	
3	0			Exchange of labour			H	4,032	
4	0	Farmers' mutual aid				55	Shami	3,010	
5	0	Ceremonial occasions		*1	I	28	Naik	4,044	
6	0				I	60	H (Dhanuk)	3,213	
7	0					47	Jat	8,870	
8	0	Mutual aid in neighborhood				45	H (Chamar)	3,696	
9	0						H (Chamar)	3,080	
10	1	Ceremonial occasions			G	26	Khatri		350
11	1	Ceremonial occasions		Exchange of labour	H	17	Khatri		180
12	1	Farmers' mutual aid				25	Jat		200
13	2	Ceremonial occasions		Exchange of labour	P	52	Brahmin		1,475
14	2	Ceremonial occasions		Exchange of labour	M	28	Khatri		2,050
15	2.5				I	36	Jat		5,800
16	2.5	Ceremonial occasions		Exchange of labour, group cultivation		41	Jat		4,700
17	2.5	Social		Sharing common property	M	48	Jat		4,980
18	3	Ceremonial occasions	Festivals	*2	M	18	Nai		4,900
19	4	Ceremonial occasions	Festivals	*3	M	35	Jat		5,000
20	4	Social		Exchange of labour	M	60	Jat		5,250
21	5	Ceremonial occasions		*4	M	40	Khatri		5,050
22	5	Ceremonial occasions		*5	M	25	Jat		8,250
23	5	Ceremonial occasions	Event such as school festival	*6	P	53	Jat		5,600
24	7	Ceremonial occasions	Festivals	*7	H	20	Jat		7,300
25	7	Ceremonial occasions		*8	H	19	Jat		8,200

House hold no.	Area of land owned (acres)	Mutual aid practices			Respondents'			Farming Wage (rupees)	Estimated Cash income (rupees)
		Daily life-related	Production-related	Others	Educational level	Age	Caste		
26	10	Social		Exchange of farming implements	P	42	Jat		16,000
27	12	Social		Exchange of labour, Exchange of input goods	L	40	Jat		10,100
28	12	Social		Exchange of labour, sharing of common property	H	40	Jat		17,500
29	12	Social		Exchange of labour, sharing of common property		45	Jat		22,500
30	13.5	Social		Debit and credit of agricultural input goods	H	32	Brahmin		23,900

*1 Mutual aid in cultivating, harvesting, threshing, irrigating and building houses

*2 Mutual aid in cultivating, harvesting, threshing, irrigating and seeding

° Agricultural festivals

*3 Mutual aid in cultivating, harvesting, threshing and irrigating

° Agricultural festivals

*4 Mutual aid in cultivating, planting, irrigating, harvesting and threshing

*5 Mutual aid in cultivating, irrigating, weeding, harvesting and threshing

*6 Mutual aid in harvesting, threshing, irrigating, cultivating and seeding (cucumbers)

*7 Mutual aid in harvesting, threshing, irrigating, cultivating and seeding (cucumbers)

Mutual aid by cultivation with tractor

° Agricultural festivals

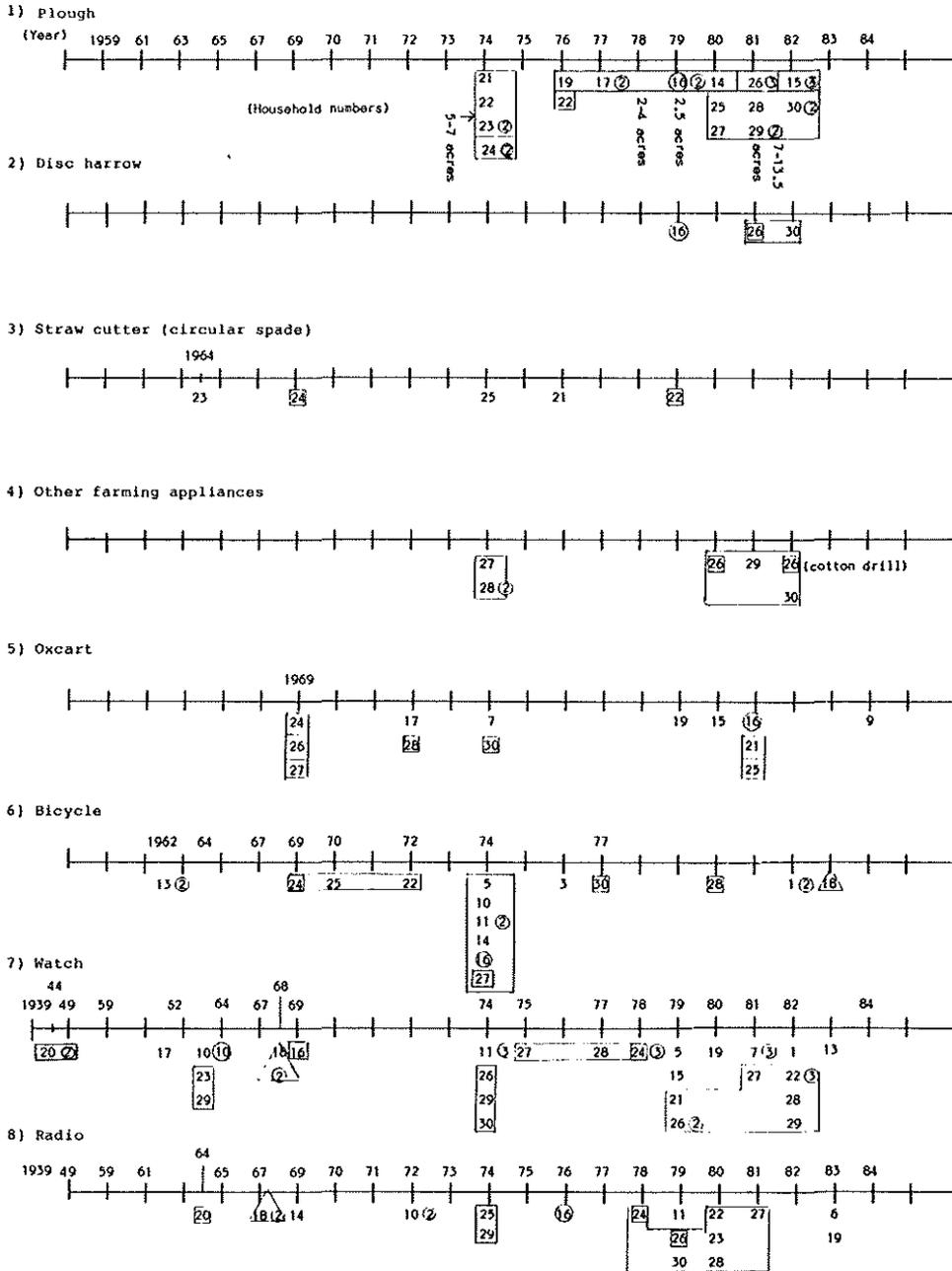
*8 Mutual aid in cultivating, irrigating, harvesting and threshing

*9 Educational level

I = Illiterate; L = Literate; P = Upto 5 standards; M = Upto 8 standard; H = Upto 12 standard; G = Graduate and above.

Fig. 3-1

Mukhalan Villagers' Major Expenditure by Year-wise and Commodity-wise



9) Others



- 24 Expenses for cultural or semidurable consumption goods (bicycle, watch, radio) as well as production appliances (spade, straw cutter, oxcart) are conspicuous. Cash income from farm produce sales: 7,300 rupee
- 26 Expenses for production implements (3 ploughs disc harrow, other farm appliances, oxcarts) and consumption goods (watch, radio) increased.
- 18 Large collection of semi-durable consumption goods
Income from farm produce sales: 4,900 rupee
- 16 Possess production appliances (plough, disc harrow, oxcart) and semi-durable consumption goods (bicycle, watch, radio). Expenses began from 1969, increasing after 1974. Bold investments in production appliances in 1979. What is the income source of household expenditure, what made this possible?
Income from farm produce sales: 4,700 rupees

4 Case Study of "family planning" (1)

-----Relationship between family size and the practice
of family planning in the villages studied-----

(1) Items of Study and Method

In this study, we inquired about family size and the practice of family planning by asking several prepared questions in order to understand these two points in relationship to economic activities and the degree of participation in the rural development programmes.

The questions were: (i) number of existing children, (ii) number of deceased children, (iii) ideal number of children, (iv) whether sons are preferred to daughters, (v) whether family planning is practiced or not, (vi) in the case of family planning being practiced, method, and place of obtaining information as well as devices or surgery, and (vii) in the case of the absence of family planning, the reason.

These questions presented to male respondents by male interviewers together with other questions. Then, they were presented to the wife/daughter-in-law of each male respondent by female interviewers to ensure reliability, and, at the same time, to identify any differences in attitude between the sexes.

These specific questions received better responses than the other questions. Though we had anticipated some difficulty because extremely personal questions were presented by foreign interviewers, in general, we were able to enjoy the respondents' cooperation. The answers to questions (iii) and (iv), however, indicate that these questions might have been incorrectly interpreted.

(2) Sample Population Characteristics

As mentioned above, the households comprising the sample in our investigation were selected based on size of land owned. Consequently, there were certain problems concerning the actual state of some families. One relates to the age of the sample households. Table 4-1 shows the age of the wives of each sample household. According to this table, it can be seen that in Village M in Bihar, many households sampled happen to be young.

In this regard, when totalling the figures, we treated those households with a 30 year old or older mother separately after summing the entire sample. The second problem was that we had to exclude a small number of households where a spouse was deceased or where the owner was still single. The other problem was that other households sampled were comprised of several couples. Since we were dealing with couples, the number for all couples and that for all sample households

which were classified according to size of land owned, are not identical. We request that reader consider the above problems when examining the results of our summation.

(3) Number of Existing Children and Family Planning

What factors influence each couple's decision on how many children to have? And how does the number of children affect the practice of family planning?

1) Age of mother

Table 4-2 shows the number of existing children by the age of the mother.

The average number of children of all mothers (of all ages) is 2.96 in Village Mukhalan (abbreviated as MK hereinafter) in Haryana and 2.97 in Village Morsand (abbreviated as M hereinafter) in Bihar, or they are almost the same. However, the average number of children of 30 year-old and older mothers is 3.95 in Village MK and 3.29 in Village M or there exists a considerable difference. Furthermore, the average number of children of 40 year-old and older mothers is 4.92 in Village MK and 3.0 in village M, or the difference grows larger with the mother's age. To the contrary, the average number of children of mothers younger than 30 is 1.8 in Village MK and 2.3 in Village M. In summary, in Village Mk in Haryana, the reproduction age of mothers is rather long, and the total number of children born by each mother is greater than that in Village M in Bihar. This tendency corresponds with the fact that the number of births is greater in Haryana in comparison to Bihar in State-level statistics.

Tables 4-3 and 4-4 show the rate of the practice of family planning based on the age of the mother as well as the number of existing children. When looking at the rate of the practice of family planning by the age of the mother, in Village MK in Haryana the mothers of age range 30-34 years old who are believed to have already given birth to several children practice family planning most often, and family planning is widely practiced among mothers of wide age range upto late 40s. This corresponds with the above-mentioned fact that in Village MK women of a wide age range bear children. On the other hand, in Village M in Bihar the rate of practicing family planning is high among 35 through 39 year-old mothers, but it is also considerably high among young mothers below 24 and no 40 year-old or older mothers were seen to be practicing family planning. In the case of Village M, if we also consider the fact that those giving birth most often are primarily young mothers, it would be reasonable to conclude that some social mechanism of birth control is functioning. The fact that many young mothers practice family planning indicates that the concept of family planning has begun to spread recently in this district and that young mothers have been the first to employ it

in Marsand. The general rate of practice in both Village MK and Village M is higher than the average rate in the respective states of Haryana and Bihar. This reflects the fact that both of the villages studied enjoy better conditions.

2) Table 4-5 shows the relationship between the numbers of children and ownership of land. Since our sample size is small, we are not able to easily reach a conclusion. However, the following would not be significantly unrealistic. Generally, both owners large amounts of land and people with no land at all have a smaller number of children, while owners of medium-sized holdings of land have more children.

One of the reasons why those who own no land in Village M in Bihar have a small number of children would be the cocentration of cases of infant deaths in this group (see Table 4-6).

However, in Village MK, such a concentration of child death is not seen in any group of land ownership size. We could not make clear the reason for the small number of children in Landless group of MK. Owners of large areas of land, on the other hand, appear to possess a strong desire to limit the number of their children as is reflected in the fact that they are the most conscious of and practice family planning which is described in detail below. For the upper and middle classes in rural areas, having many children, means such economic demerits as enormous educational costs resulting from the increasing educational level, division of their land through equal inheritance, and extremely high dowreis for daughters.

Table 4-7 shows the rate of the practice of family planning by the amount of land owned. In Village MK in Haryana, the rate is high for those owning no land and those possessing 2.5 acres or more (rate among owners of 5.0 - 9.9 acres is low because most of the couples only have 1 - 2 children). On the other hand in the state of Bihar the rate is low among landless people and and somewhat higher among medium-sized owners having around 5 acres. The rate among landless group is lower in Village M in Bihar than in Village MK in Haryana because it appears that the people who own no land strongly prefer several sons as future money earners. This will be discussed in greater detail in the following pages.

3) Preference for Sons

It is commonly pointed out that as the main factor in determining the number of children a couple should have is preference for sons in India. Most couples continue to bear offspring until they have at least one or two sons.

In our investigation, the tendency to prefer sons was witnessed in both villages. 18 out the 29 households sampled in Village MK in Haryana and 19 out the 36 in Village M in Bihar expressed their

preference for sons. And if we examine in more detail, we could add some more couples from those who do not answer their preference to sons directly, especially from middle-upper class respondents, to those who directly expressed this preference. The reason for preferring sons clearly differs between the two villages studied. There is also variation by social class. In Village MK in Haryana the middle and upper classes, mainly Jat farmers, (described below) strongly prefer male offspring because they desire that sons succeed their households and carry on agricultural production. To the contrary, those who own no land were seen to only have a slight preference for sons. In Bihar, a great number of people who own no land, in reverse fashion, express their preference to have as many sons as possible because they want their sons to become earners in the future. Some middle and upper class farmers in both of the villages studied prefer sons because costly dowries are required for daughters (see Table 4-8).

The above difference in reasons between the two villages studied reflects a difference in the type of agricultural labour (whether mainly family labor or employed labour), a difference in the wage for agricultural labor, a difference in the possibility of employment outside the respective villages or in non-agricultural sector, social characteristics of the leading agricultural communities and so on. In any case, when each couple considers the number of children they should have, the number of sons is an extremely important point.

Table 4-9 is intended to show the correlation between the number of sons and the number of existing children. The numbers for sons are in the left column and the numbers for children, including sons, are in the upper most row. If the number of sons strongly influence the total number of children, many respondents would be concentrated near the oblique-lined area of the shape of a staircase. From this Table we can see that in Village MK in Haryana the number of sons determines the number of children to a considerable degree. On the other hand, in Village M in Bihar such a clear correlation as in Village MK cannot be seen.

There is almost no substantial correlation between the number of daughters and the number of children (see Table 4-10).

In Village MK the ratio of sons among all children (entire sample) is very high. Though generalizations are dangerous due to small sample size, this corresponds with the fact that the sex ratio of the Haryana population is very imbalanced with a larger number of male offspring. Since the sex-ratio of children is almost balanced in any society, the fact that the number of sons is so much larger cannot be explained only by the strong preference for sons in terms of social and economic reasons. Possible reasons are differences in the mortality rate of infants and children among both sexes and that the number of daughters is tended to be underreported. However, as far as

Village MK is concerned, responses attempting to explain infant death do not show any great differences between the sexes. The reason why the number of sons is much greater remains unknown in this survey.

Moving away from the above question, it was discovered that many young mothers strongly wish to have at least 2 sons. Some young respondents stated that one of the reasons why they do not practice family planning is because "they want another son". Table 4-11 illustrates the rate of the practice of family planning by the number of sons. In Village MK in Haryana, among respondents having 2 or more sons, the rate of practicing family planning is extremely high. In Village MK most of the respondents who prefer sons are middle and upper class couples as previously mentioned, and, since the middle and upper classes have also strong reasons to restrict the number of children, after having 2-3 sons they are ready to introduce family planning. A similar trend is found in Village M in Bihar, but the extent is much smaller than in Village MK.

On the other hand, Table 4-12 shows the relationship between the number of daughters and the rate of the practice of family planning. The correlation seen between the number of sons and the rate of the practice of family planning is not present here; even among many respondents who have no daughters, family planning is practiced.

4) Community

Next we would like to discuss the relationship between community and the rate of practice of family planning. In Morsand village in Bihar, Koeris and Bumihar Brahamans. are the dominant communities from the viewpoints of population and economy such as ownership of land. In Village MK in Haryana a farmers' community called Jat is overwhelmingly dominant. These "dominant" communities have a strong voice in their respective villages and have comparatively tight ties with the administration. These dominant communities practice family planning considerably more than other communities. On the other hand, the scheduled castes (so-called "untouchable" outcaste group) most of whom are landless agricultural labourers, practice family planning comparatively well in Village MK in Haryana but not so in Village M in Bihar. This corresponds with the fact that many landless people in Village M wish to have as many children (especially sons) as possible as future earners.(Table 4-13)

The reasons why the "dominant" communities practice family planning more are: 1 Most of them are the farmers of middle or upper strata in land ownership, and tended to avoid further fragmentation of land in coming generations; 2 They can easily be approached by administrators and have easy access to various forms of information, and 3 since their status in their respective villages has already been established, their motives to amplify their position in their villages or areas by increasing the population are not so acute. In the case

of a small community, or when the distribution of power in several communities is rather equal, whether the number of members of a community is small or large can be a very important matter in rural life.

Thus far we have discussed the relationship between the number of children and the rate of the practice of family planning by considering the above 4 viewpoints. Other possible viewpoints may include type of job and the educational levels of the parents, but we exclude them here because the related questions were not always correctly answered in this survey.

Finally, we will touch on the ideal number of children, methods employed by people practicing family planning, and the reasons why family planning is not practiced in certain cases.

Tables 4-14 and 4-15 deal with the ideal number of children. Both husbands and wives in Village M in Bihar expressed their desire to have more children than their counterparts in the other village. From the perspective of land ownership, the upper classes in both villages showed almost similar attitudes, but those having no land and those possessing land up to 2.5 acres in Village M in Bihar consider slightly more children to be ideal.

The reason for this is in the difference of expectations to have children as future earners as mentioned in the above. The point to be observed, however, is the fact that the figures for the ideal number of children in both villages are 2-4, at least in principle. Since there are many respondents who have children exceeding what they believe to be ideal (see Table 4-16), it is possible that ideal number does not reflect the real situation. However, it may be possible to make the interpretation that the belief of "a small family" being good or should be good prevails among a wide range of social classes in both villages.

The most commonly employed method of birth control is operation for both men and women. Other methods are only: 1 case of condom use and 1 case of the traditional method in Village MK in Haryana and 2 case of condom use and 1 example of IUD in Village M in Bihar. Users of these nonsurgical methods were 2 respondents who own 5 or more acres in Village MK, and 1 subject possessing 0 - 2.5 acres, 1 case of a person owning 2.5 - 5 acres, and 1 respondent who owned 5 - 10 acres in Village M. operation was performed at a private institution in Hiwar City, which is easily accessible, the health center within the district covering Village MK, and a public hospital which also functions as a block health center and itinerant camps in Village M.

The reasons why family planning is not practiced include uneasiness over one's health in many cases. Religious reasons in only 2 cases in Village M in Bihar, in addition to an insufficient number

of children and those totally lacking any knowledge of family planning.

One of the reasons why the rate of practice of Family Planning in Village MK is remarkably higher seems to lie in the fact that people feel only slightly uneasiness about their health regarding operation. Whether this is due to some difference in the sanitary conditions of operation in the two areas or some difference in understanding operation remains unknown in our investigation.

5) Summary

The following are several noteworthy points extracted from the above results of our investigation.

- (i) There is a big difference in the attitude toward the number of children or preference to sons according to socio-economic class and areas. This difference also determines the degree of the introduction of Family Planning method in two villages studied.
- (ii) In general, family planning is practiced the most in middle and upper class households, having 2-3 or more sons, especially in the village's dominant community. This means that it is only these people who can ensure a better future by restricting the number of their children. At the other hand for landless people of Village M in Bihar, to have a considerable number of children (sons) is still the most effective form of insurance for the future. Under such conditions, family planning will not easily spread to all sectors of agrarian society.
- (iii) "Dominant" communities such as Jats in Village MK and Koeris and Bumihar Bramans in Village M play an important role in popularizing family planning in rural areas. From another point of view, being the leading farmers, they are also the beneficiaries of regional development programmes, which link the administration to their villages. Jat in particular is a very interesting community, which clearly has family planning as an objective, namely the restrictions on the number of children after the birth of a sufficient number of sons. Furthermore, since family planning was first practiced by these dominant communities in both villages, most of villagers seem to have gradually come to have less and less feelings of the taboos relating to family planning. Family Planning can currently be considered to be acceptable in the two villages since very few respondents answer the religious/moral reasons for their not practicing family planning. Where there is no community possessing a strong motive for family planning as well as socially influential power, an

approach to such villages for the purpose of introducing family planning by the administrative authorities may be full of difficulties. In Indian society, the weaker section of the people have good reasons for not limiting the number of children economically, and furthermore, it is extremely difficult for them to introduce new social habits into the rural life.

- (iv) Primary method of birth control is still operation (vasectomy and tubectomy) problem to be dealt with might be to diffuse methods which enables spacing between births among young mothers.

The basic principle of family planning policy adopted by the Indian government at the present is the recommendation of having only 2 children using comprehensive approach. From the results of our investigation, however, villagers perform their "family planning" to maintain their households and provide for the future under their specific conditions.

Their ideal family composition is still far from the one of 2 children per family advocated by the government. It is true that the concept of family planning came to be understood much better even in rural areas comparing to the 1970's, but eliminating the above discrepancy not only requires an appropriate family planning policy but also economic development ensuring equality.

Table 4-1 Number of Households Sampled by Age of Wife

	Haryana		Bihar	
	Number of samples	(100%)	Number of samples	(100%)
- 24	6	19.4%	6	17.1%
25 - 29	4	12.9	12	34.2
30 - 34	2	6.5	2	5.7
35 - 39	7	22.6	6	17.1
40 - 44	5	16.1	1	2.9
45 - 49	4	12.9	2	5.7
50 - 55	2	6.5	4	11.4
55 -	1	3.2	2	5.7
Total	31	100%	35	100%

Note: In the case of the mother being deceased, (age of father - 5).

Table 4-2 Number of Existing Children by Age of Mother

	Haryana										Bihar											
	Number of existing children									Total	Sample distribution (%)	Number of existing children									Total	Sample distribution (%)
	0	1	2	3	4	5	6	7+	0			1	2	3	4	5	6	7+				
- 24		••	•						6	19.4	•	•	••	•	•				6	17.1		
25 - 29		•	•		••				4	12.9			•••	••	••		•		12	34.2		
30 - 34			•	•					2	6.5		•	•						2	5.7		
35 - 39	•	•		•	•••		•		7	22.6			•	•	•	••		•	6	17.1		
40 - 44			•	•	••		•		5	16.1			•						1	2.9		
45 - 49							•••	•	4	12.9			•				•		2	5.7		
50 - 55				•		•			2	6.5				•••	•				4	11.4		
55 -								•	1	3.2			••						2	5.7		
Total	1	7	4	4	7	1	5	2	31	100 %	1	2	13	9	5	2	2	1	35	100 %		
	(3.2)	(22.5)	(12.5)	(12.5)	(23.5)	(3.2)	(16.1)	(6.5)			(2.9)	(5.7)	(37.1)	(25.7)	(14.2)	(5.7)	(5.7)	(2.9)				

Note: In the case where the mother is deceased, (age of mother is given by reducing 5 years from father's age).

Table 4-3 Rate of Practice of Family Planning by Age of Mother

Age of mother	Haryana			Bihar		
	Sample Number	Number of samples practicing	Rate of practice (%)	Sample number	Number of samples practicing	Rate of practice (%)
- 24	6	1	16.7	6	3	50
25 - 29	4	2	50.0	12	3	25
30 - 34	2	2	100.0	2	0	0
35 - 39	7	4	57.1	6	4	66.7
40 - 44	5	3	60.0	1	-	0
45 - 49	4	2	50.0	2	-	0
50 - 54	2	-	0	4	-	0
55 -	1	-	0	2	-	0
Total	31	14	45.2 %	35	10	28.6 %

Table 4-4 Rate of Practice of Family Planning by Number of Existing Children

Number of existing children	Haryana			Bihar		
	Sample number	Number of samples practicing	Rate of practice (%)	Sample number	Number of samples practicing	Rate of practice (%)
0	2	1		1	0	
1	7	-	0	2	1	50
2	4	2	50	13	2	15.4
3	4	2	50	9	4	44.4
4	7	6	85.7	5	2	40
5	1	-		2	-	
6	4	3	75.0	2	-	
7 +	2	-		1	1	

Table 4-5 Number of Existing Children by Land Owned

Land owned (acre)	Haryana									Bihar										
	Sample number	0	1	2	3	4	5	6	7 + number of existing children	Average	Sample number	0	1	2	3	4	5	6	7	Average number of existing children
0	9	.	..	.	..	.		..	3.7		5	.		.	..		.			3.3
0 - 2.4	4		.	.		.		.	5.5		15		.	.....	..	.	.	.	.	4.6
2.5 - 4.9	7		.	..	.	..		.	2.8		8			... ..	..					(3.0)
5.0 - 9.9	6		...					.	4.8		3			.	..					(4.0)
10.0 -	5			.	...			.	4.3		5		.	...				.		1.8
Total	31										36									

1 Average number of existing children is calculated only for 30 year-old and older mothers

2 . Mother below 30 • 30 year-old or older mother

Table 4-6 Number of Infant/Child Deaths (Number of child deaths is below 15).

Land owned	Haryana		Land owned	Bihar	
	Male	Female		Male	Female
0 (acre)	2	0	0 (Acre)	3	4
0 - 2.4	2	1	0 - 2.4	7	2
2.5 - 4.9	3	1	2.5 - 4.9	1	1
5 - 9.9	0	0	5 - 9.9	0	0
10 -	1	1	10 -	0	0

Table 4-7 Rate of Practice of Family Planning by Land Owned

	Land owned	0	0-2.4	2.5-4.9	5.0-9.9	10.0-	
Haryana	Sample number	9	4	7	6	5	
	Number of samples practicing	3	0	6	1	4	
	Rate of practice	33.3%	0.1%	85.7%	16.7%	80.0%	
	<u>30 year-old or older mothers</u>						
	Sample number	7	2	5	4	4	
	Number of samples practicing	3	0	5	0	3	
	Rate of practice	42.9%	0.1%	100%	0%	75.0%	
Bihar	Sample number	5	15	8	3	5	
	Number of samples practicing	1	2	5	1	1	
	Rate of practice	20%	13.3%	62.5%	33.3%	20%	
	<u>30 year-old or older mothers</u>						
	Sample number	3	7	1	1	4	
	Number of samples practicing	0	2	1	0	1	
	Rate of practice	0%	28.6%	100%	0%	25.0%	

Table 4-8 Preference for Sons and Reasons

Area	Land owned	Number of samples	Number of samples preferring sons	As future earners	To succeed household	To assist in agriculture	Dowry	Unknown
Haryana	0	8	2	2				
	0-2.4	3	1	1				
	2.5- 4.9	7	6		3	4	1	
	5- 9.9	6	5		1	3	2	
	10-	5	5		2	5		
Bihar	0	5	5	5				
	0-2. 4	15	6	2	2		1	
	2.5- 4.9	7	3		1	1		1
	5- 9.9	2	1				1	
	10-	4	3			1	1	1

Some respondents gave two or more reasons.

Table 4-9 Number of Sons and Number of Existing Children

Area	Number of sons	Number of existing children (persons)									
		Sample number	0	1	2	3	4	5	6	7+	
Haryana	0	7	•••	•••	•						
	1	6		•••	•	•	•				
	2	8			••	•	•••			•	
	3	4				•				••	•
	4	3					•••				
	5	3							••	•	
Bihar	0	5	•	•	•	•	•				
	1			•	•••	•••	•				
	2	14			••••	•••	••	•		•	
	3	2				••					
	4	3							•	•	•

Table 4-10 Numbers of Daughters and Numbers of Existing Children

Area	Number of daughters	Sample number	Number of existing children (persons)							
			0	1	2	3	4	5	6	7+
Haryana	0	12	•• •	••	••	•	•••	•		
	1	9	••• •	•	•	•		•	•	•
	2	7		•	•	••	••			
	3	2							••	
	4	2							•	•
Bihar	0	9	•	•	••• •••	•				
	1	12		•	••• •••	••	•	•		
	2	8			••	••	••		•	
	3	4				•	•	•		•
	4	2					•		•	
	5									

Table 4-11 Number of Sons and Rate of Practice of Family Planning

		(Persons)					
Haryana	Number of existing sons	0	1	2	3	4	5
	Sample number	7	6	8	4	3	3
	Number of samples practicing family planning	1	1	6	3	2	1
	Rate of practice (%)	14.3	16.7	75.0	75.0	66.7	33.3
Bihar	Number of existing sons	0	1	2	3	4	5
	Sample number	56	11	14	2	3	-
	Number of samples practicing family planning	0	3	5	1	1	-
	Rate of practice (%)	-	27.3	35.7	50	33.3	

Table 4-12 Number of Daughters and Rate of Practice of Family Planning

		(Persons)					
Haryana	Number of existing daughters	0	1	2	3	4	5
	Sample number	12	9	7	2	2	
	Number of samples practicing family planning	6	-	5	2	1	
	Rate of practice (%)	50.0	-	71.4	100.0	50.0	
Bihar	Number of existing daughters	0	1	2	3	4	5
	Sample number	9	12	8	4	2	
	Number of samples practicing family planning	2	4	3	1	-	
	Rate of practice (%)	22.2	33.3	37.5	25.0	-	

Table 4-13 Communities and Rate of Practice
of Family Planning

(mathers: 25 years old and older)

	Community	Dominant Castes	Sheduled Castes	Others
Haryana	Sample number	14	4	5
	Number of samples practicing	10	2	2
	Rate of Practice (%)	71.4	50.0	40.0
Bihar	Sample number	19	6	4
	Number of samples practicing	7	0	1
	Rate of Practice (%)	36.3	-	25.0

Table 4-14 Ideal Number of Children: by Sex of Parent

		(Persons)						
	Ideal number of children	1	2	3	4	5	6+	Total
Haryana	Husband	1	12	9	1			23
	Wife	1	10	8	1	1	-	21
Bihar	Husband	1	7	17	5	1	-	32
	Wife	-	-	5	3	2	-	10

Average number: Haryana Husband; 2.33
 wife; 2.57

Bihar Husband; 2.84
 Wife; 3.70

Table 4-15 Ideal Number of Children by Land Owned

		(Persons)							
		Land owned (acre)	1	2	3	4	5	6+	Total
Haryana	Husband	0		4	2			1	7
		0 - 2.4		4					4
		2.5 - 4.9	1	1	4				6
		5 - 9.9		1	1				2
		10 -		2	2	1			5
Bihar	Husband	0		1	3	1			5
		0 - 2.4	1	2	7	2	1		13
		2.5 - 4.9		2	4				6
		5 - 9.9			1	2			3
		10 -		2	2				4

Table 4-16 Ideal Number of Children and Number of Existing Children

	Ideal number > Number of existing children	Ideal number = Number of existing children	Ideal number < Number of existing children
Haryana	7	6	10
Bihar	6	17	8

Table 4-17 Reasons Why Family Planning is not Practiced

	Insufficient number of children	Adverse effects on health	Ethical/religious reasons	Ignorant about family planning
Haryana	4	0	0	5
Bihar	11	6	2	3

CHAPTER 2: Rural Development
Policy and Its Progress

1. Issues of Organizational Capability

As we have seen, there has been improvement in the content of rural community development policy, in terms of its target groups and areas. However, since both those who apply the policy and those to whom the policy is being addressed are human beings, there must be a close cooperation between the two in order for the policy to be fully effective. This is the main theme of the second chapter.

First, it will be pertinent to summarize some of the issues related to policy implementation. There are four factors which determine the success of policy implementation by organizations : (1) organizational issues, (2) personnel issues, (3) resource mobilization, and (4) ability to receive cooperation from those concerned.

The following is the brief sketch of the context of each of the above described factors.

(1) Organizational Issues Involve:

- a) The appropriate and logical distribution of authority and function. This can involve the delegation of a certain power to lower organizations.
- b) Standardization and simplification of methods of planning, budgetary formulation, implementation and evaluation procedures.
- c) The issue whether some co-ordinating mechanism for the distribution of authority and responsibility among organizations exists or not.
- d) The issue whether a communication system within and among the organizations functions well or not.

(2) Personnel Issues Involve:

- a) Consolidation of intra-organizational personnel appointment, distribution, treatment and training methods.
- b) Existence of participatory decision-making mechanisms in each unit.
- c) Ability to control and coordinate the decisions made by lower units.
- d) Promotion of mutual understanding among the members of the organizations concerned.

e) Ability to remove the sources of complaint and disputes.

(3) Resource Mobilization Involves:

a) Stability of financial and other resources.

b) Budgetary distribution according to the planned guidance of the activities.

c) Budgetary enforcement without delay.

(4) Cooperation from The Parties Concerned Involves:

Securing the understanding, approval, compromise, or positive support and participation from the parties concerned in the projects. (This depends greatly on the government officials' attitudes).

It is clear from the previous surveys that when an organization improves its capabilities in these four areas, it will not only facilitate the enforcement of rural development policy, but also it will increase the effectiveness of such policies. (*5) The following diagram 2-1 is for reference.

2. Participation of Potential Beneficiaries

Even when the content of the policy is perfectly consistent with commitment of the political leaders and organizations, if the beneficiary does not respond timely and adequately, this policy will not be able to achieve its expected effectiveness.

This is an important point which will be discussed in more detail later.

Let us imagine a generalized process where some opportunity factors are presented from outside to a rural community. The members of the rural community will gather to discuss on how to take advantage of these policies effectively in the rural community, and finally makes a decision.

According to Toshihiro Yogo of UNCRD, there are six forms of relationships between administrative delivery system and farmer's receiving mechanism (See Fig. 2-1). However, in the Asian settings, the type #2 relationship may safely be said to be most typical. That is, in the light of Asian (small) landholding system and other social restrictions, the recipient farmers generally lack in an ability to change their own agricultural management level in accordance with technological and social changes. In these cases, both physically and systematically, administrations usually can not respond to the needs

of the farmers with appropriate policy changes. This implies that regional planning based upon a general planning method, such as a rural development plan, will not be entirely effective. Thus, in order to cope with situations, it is a usual practice of administrators to try to organize farmers in order to create more receptive beneficiaries.

Examined against the Asian settings, there are three types of village organization vis-a-vis a government policy.

First is a village organization in which the beneficiary (farmer) is considered the lowest level administrative branch, and conflict/sectionalism among administrative organs are brought into the village, causing confusion/conflicts among the villagers. For example, Bangladesh IRDP-affiliated cooperative society (KSS) and the regular cooperative society (under the jurisdiction of the Cooperative Society Ministry) were created in the same village. They struggle between the two to get enrolment of the villagers.

The second type is a rural organization in which the village is the main administrative unit and administrators guide them efficiently and operationally to meet their goals. However, there have been many cases where organizations could not fully cope with frequent changes in policies, and lose their functions and efficiency. On the other hand, within the organizations which could cope with the policy changes, influential farmers carry favour with administrators and use collective benefits exclusively for themselves. Thus, limited resources become dominated by influential individuals. Such a phenomenon appears to be widespread in Indian villages as well as elsewhere.

The third type, although it is very rare, involves a tradition of mutual aid practices and some form of mutual consultation mechanism among the members of the village. Projects are being discussed from the point of view of the general benefits for the whole village (community) free of outside temptation. There, if the organization requires, usually the leaders will even sacrifice their own profits in anticipation of long-term benefits of the organization, and will promote equalization of socio-economic status of all the members of the organization. Mutual consultation mechanism also provides an opportunity for learning various technologies, fostering the leaders of the next generation and also as a forum for resolving conflict among the members.

We would have yet to investigate what kind of village conditions will encourage the formation of rural organizations in which the policy beneficiary becomes caught in inter-organizational competition (the first type), or one which benefits only influential members, (the second type) or, finally as in the third type one which could sustain itself based on the mechanism of mutual consultation and life sharing

among the members. This question is one of the most important themes discussed in the case studies to be presented in this report.

Obviously, it was expected to be difficult to study the social structure of Indian villages with only a short period available for research (actually within five working days!).

However, during this survey, nine factors have been identified which can be considered essential to understand the character and capability of a rural organization in terms of a receiving mechanism. The questionnaire was prepared in hurried way which should provide some understanding of social structure of Indian village keeping in mind those nine variables. But frankly we have to admit we failed to formulate appropriate questions in consultation with Indian counterparts.

Fig. 2-3 lists these nine factors.

The factors which relate to life style and production activities in the village include geographical, economic and political factors as well as language, religion, culture and commonality of experiences. Living communally and sharing in common activities leads to a diffusion of management experiences in terms of defense, life-sharing, and economy. This will promote the practices among members of mutual consultation, i.e. autonomy. The practices may lead, for example, to cooperative buying, selling and manufacturing, or even to creation of joint relationships in the field of production.

Given establishment of mutual trust and an expectation of a long term economical and psychological profit through cooperation, and given reorganization of social relationships among the members appropriate to resource mobilization, will enable the members to attempt to modify the existing social code of behaviour in order to have it suit to the new situation. Self sacrifice practices by the members, particularly the leaders in expectation of the long-term benefit may be justified, and management and administration will become more effective.

Notes

- (*5) Refer to G. Shabbir Cheema and Dennis A. Rondinelli, Decentralization and Development; Policy Implication in Developing Countries, Sage Publications, 1983

Fig. 2-1 Capability factors of organizations to implement policies

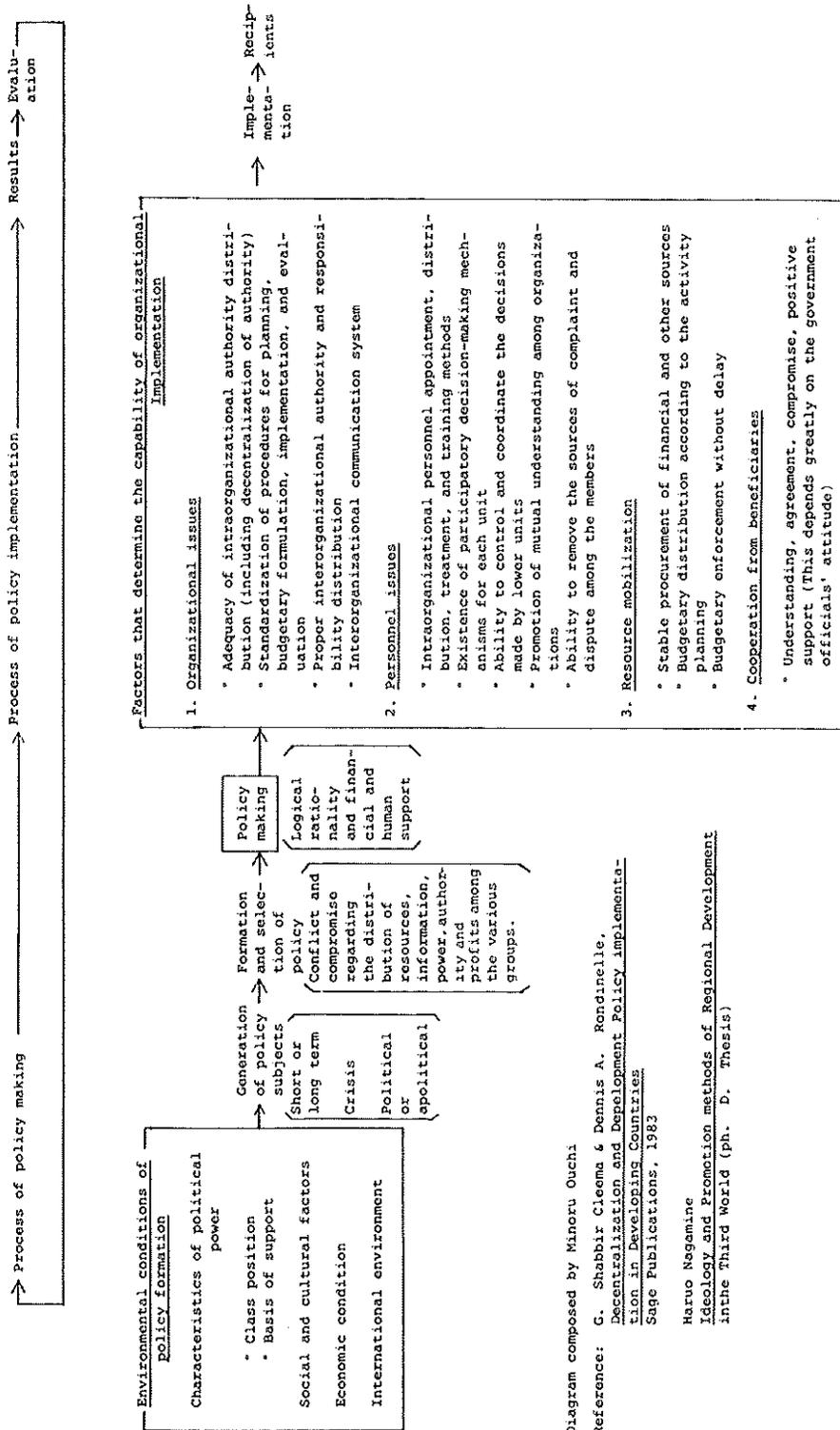
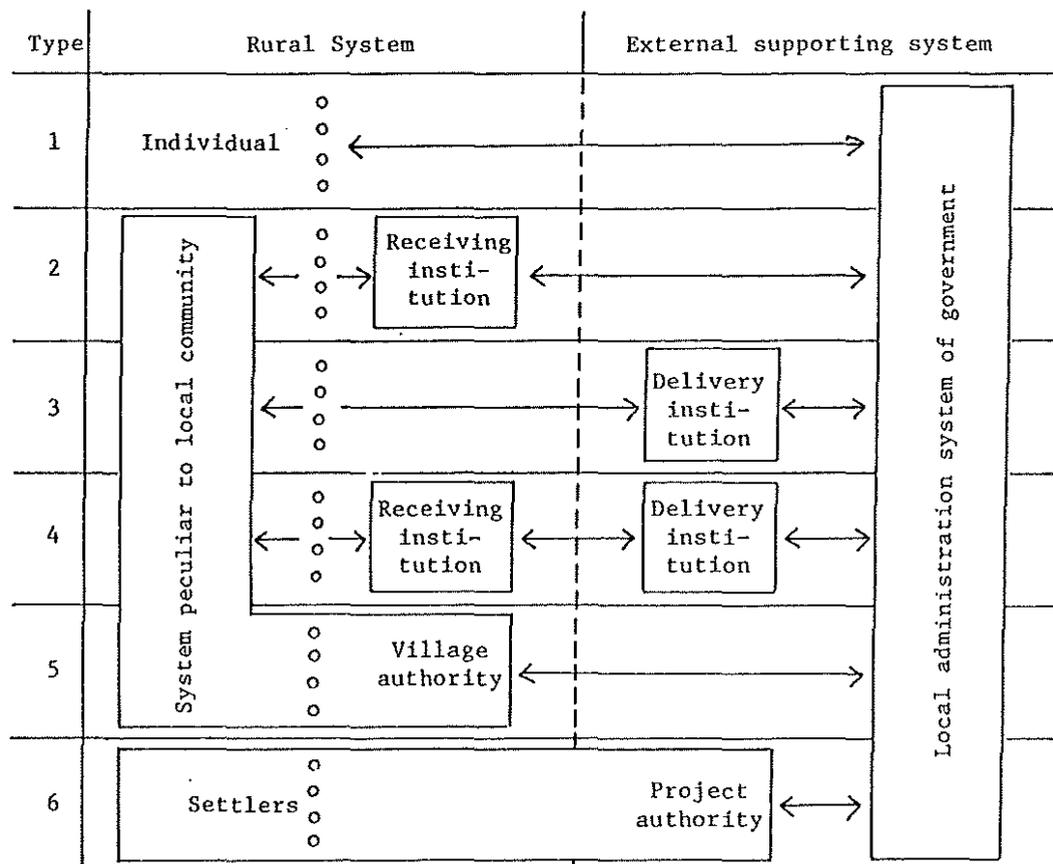


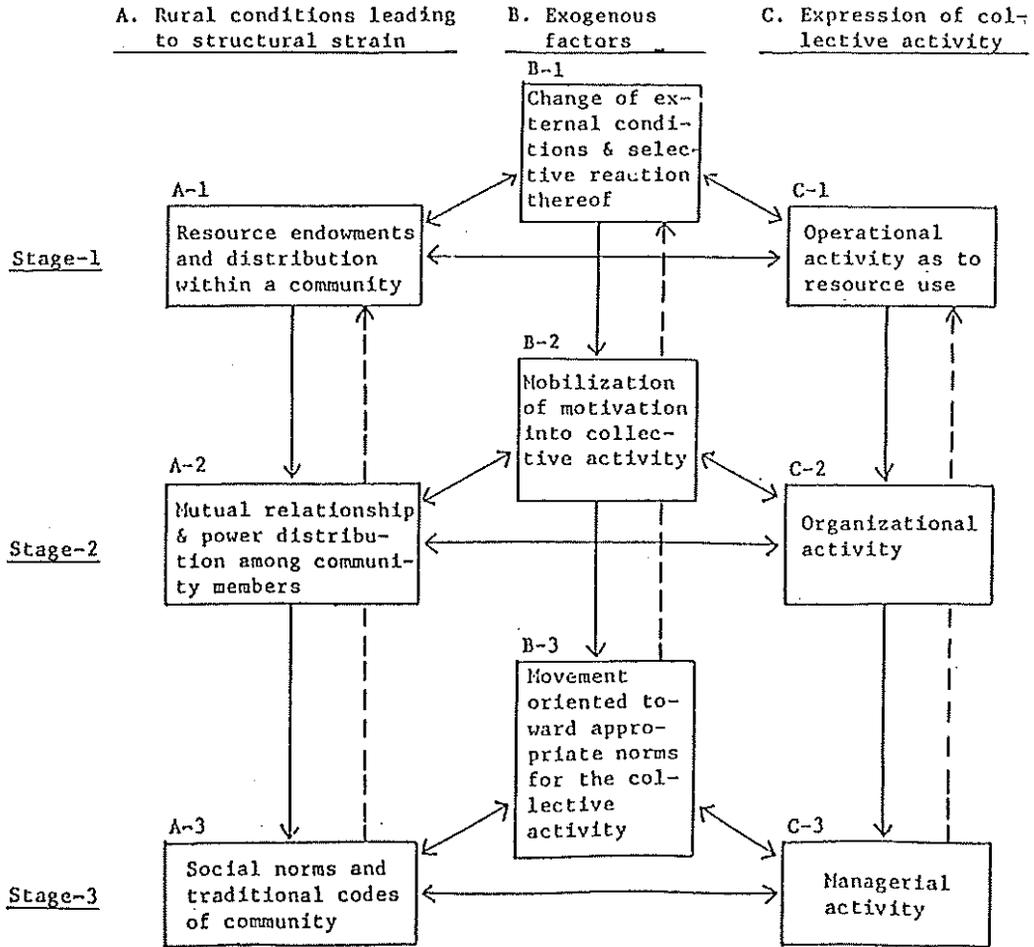
Diagram composed by Minoru Uchi
 Reference: G. Shabbir Cleema & Dennis A. Rondinelle, Decentralization and Development Policy Implementation in Developing Countries Sage Publications, 1983
 Haruo Nagamine Ideology and Promotion methods of Regional Development in the Third World (ph. D. Thesis)

Fig. 2-2 Institutional Relationship Between Delivery and Receiving Systems



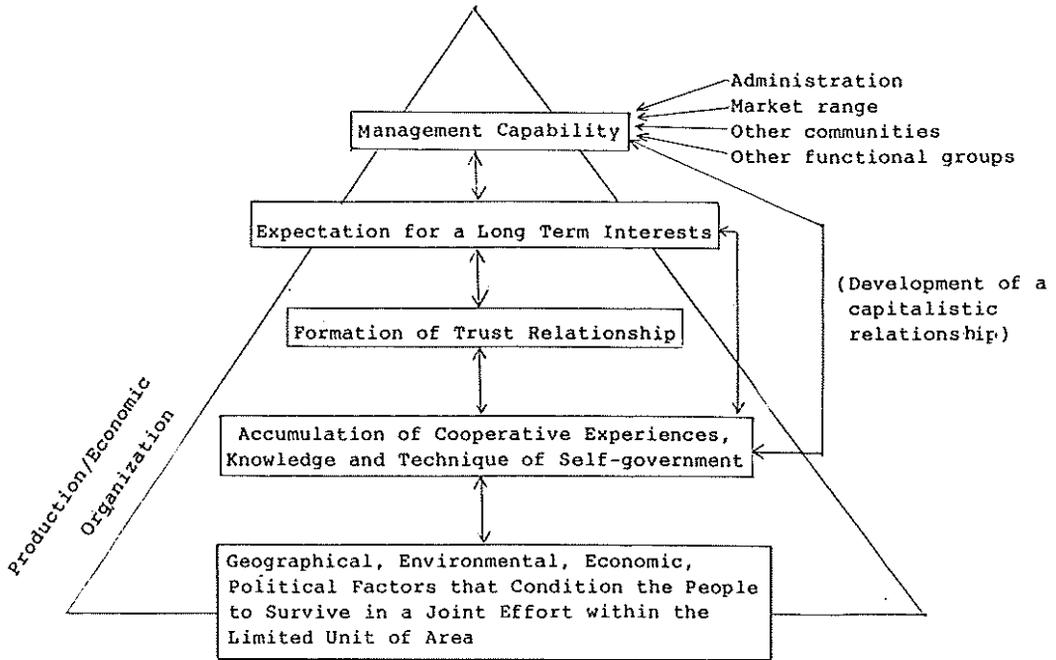
Source: Mechanism of policy delivery and farmers' receiving
 by Toshihiro Yogo, "Kokusai Noringyo Kyoryoku" Vol. 5 No.3
 1982 Dec. Issue

Fig. 2-3 Three Determinants and Three Stages for Formation of Community Receiving Mechanism



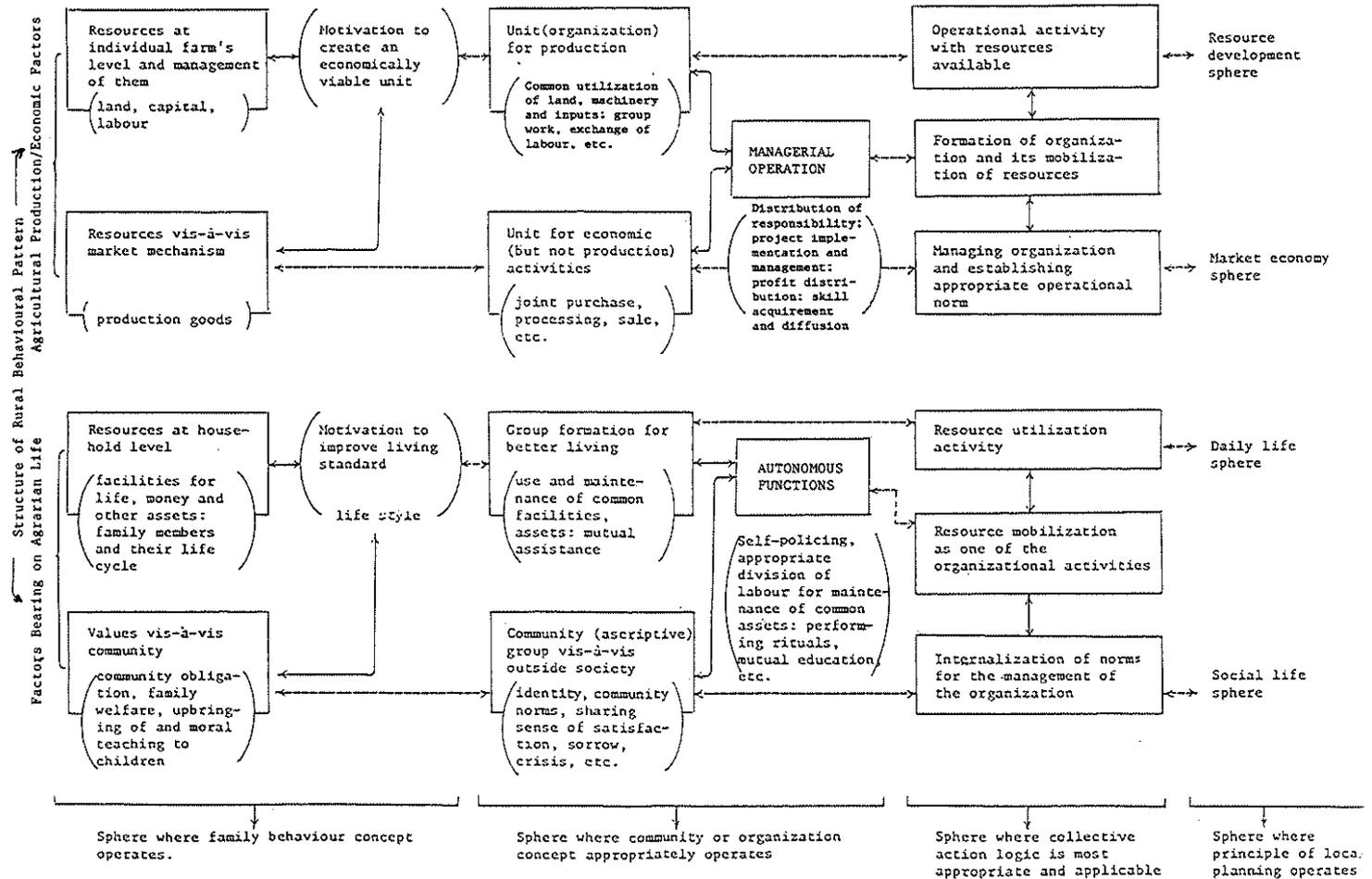
(Source) Toshihiro Yogo, "Conceptual Framework: An Overview of Regional Development Approaches and Hypothesis on the Formulation of Endogenous Receiving Mechanisms of Local Community. (mimeo) UNCRD, 1984

Fig. 2-4 Conditions for a Production/Economic Organization to Survive



- Notes
1. Arrow indicates the relationship
 2. "Elemental Resolution" and "Basic reductionism (fundamentalism)"

Fig. 2-5 A MODEL TO UNDERSTAND COLLECTIVE ACTION WITHIN A RURAL COMMUNITY (HAMLET)



Members of the Population Inquiry
Commission and Itinerary

Members of the Population Inquiry Commission and Itinerary

Japanese Investigation Committee (including non-members of inquiry commission)

Shigeto Kawano	Professor Emeritus, University of Tokyo (Main examiner) Councilor, The Asian Population and Development Association.
Hiroshi Kurimoto	Professor, Faculty of Politics and Economy, University of Tokyo
Minoru Ouchi	Director, Economic Growth Department, Institute of Developing Economies (Head of inquiry commission)
Yasuko Hayase	Research staff, Department of Statistics, Institute of Developing Economies
Fumiko Oshikawa	Research staff, Department of Inquiry, Institute of Developing Economies (Member of inquiry commission)
Junji Funatsu	Councilor, The Asian Population and Development Association
Masaaki Endo	Staff, The Asian Population and Development Association, (Coordinator, Inquiry commission)

Inquiry Commission Members in India

1. Embassy of Japan

Hosaki Takumi	Ambassador
Utsunomiya Hiroshi	Councilor
Yano Keiji	First Secretary

2. Members of Indian Diet

Honorable Mr. Sat Paul Mittal

Honorable Mr. J.K. Jain

3. Government organizations

Dr. K.C. Seal	Director General, Central Statistical Organization
Dr. A.M.Kushro	Planning Commission
Mr. Bagchi	Deputy Secretary, Rural Landless Employment Guarantee Programme, M.R.D.
Mr. A.K. Narayanan	Deputy Secretary, Integrated Rural Development Programme, M.R.D.
Dr. I.Z. Bhattý	Director General, National Council of Applied Economic Research
Dr. P.R. Dubashi	Director, Indian Institute of Public Administration
Mr. S.K. Sudhakar	Joint Secretary, Ministry of Health and Family Welfare
Dr. Maharaj Singh	Deputy Director General Education, Indian Council of Agricultural Research
Mr. N.P. Singh	Deputy Secretary, National Rural Employment Programme
Mr. A.R.Bandopadhyay	Joint Secretary, Land Reforms

- Discussion of inquiry with Mr. K.N. Dina, Head of State Statistical Officer, Ministry of Statistics
- 14 (Fri.) Explanation of rural district development program by Dr. A.M. Kushro, Planning Commission
- Explanation of rural landless labor program by Mr. S. Bagchi, Deputy Secretary, Rural Landless Employment Guarantee Program
- Saluting Honorable Mr. Sat Paul Mittal
- Luncheon sponsored by Honorable Mr. Sat Paul Mittal
- Discussion with Dr. I.Z. Bhatti, Director General, National Council of Applied Economic Research
- Discussion with Dr. P.R. Dubashi, Director, Indian Institute of Public Administration
- 15 (Sat.) Explanation of Indian family planning by Mr. S.K. Sudhakar, Joint Secretary, Ministry of Health and Family Welfare
- Conference with Dr. Maharaj Singh, Indian Council of Agricultural Research
- Welcome reception held by the Honorable J.K. Jain
- Dinner party for discussion and arrangement with Mr. Yano Keiji, First Secretary
- 16 (Sun.) Leave Delhi, arrive at Patna
- 17 (Mon.) Reception by Dr. J.C. Bakshi, Vice Chancellor, Rajendra Agricultural Univ. Arrange method of investigation with Dr. D. K. Singh, Head of Agricultural Economy, same Univ.
- 18 (Tue.) Explanation of method of investigation to inquirers
- Field investigation at Village Morsand

19 (Wed.) Field investigation at Village Morsand
(including inquiry of individuals)

20 (Thurs.) Ditto

21 (Fri.) Totalization of answers to inquiry

22 (Sat.) Leave Patna, arrive at Delhi

23 (Sun.) Leave Delhi, arrive at Hissar

 Arrange investigation with Dr. L.D. Kataria,
Vice Chancellor, Haryana Agricultural University

24 (Mon.) Arrange method of investigation with persons
concerned at same University

 Explanation by Mr. Sajjan, Chief Executive
Officer, District Rural Development Agency, of
rural area development by local organizations.

 Investigate Village of Mukula

25 (Tue.) Continue investigation

26 (Wed.) Explanation of rural area/agriculture
development by Mr. Matrib Singh, Block
Development Office

 Observe primary health care center

 Summary of inquiry

27 (Thur.) Collect materials at Block Development Office

 Leave Hisar and arrive at Delhi

28 (Fri.) Explanation of rural area manpower program by
Mr. N.P. Singh, Deputy Secretary, National
Rural Development Program

 Explanation soil improvement by Mr. A.R.
Bandspndhym

29 (Sat.) Leave Delhi, arrive at Narita

Description of the Survey Questionnaire Items

I. Household:

I-1 Name of the head [redacted]

I-2 Caste Jat

I-3 Present members of the household

	Name	relation to the head	residence	age	sex	marital status	education	occupation
1	[redacted]	self	medium	45	M	married	metric	Farming
2	[redacted]	son		22	M	married	studying	student
3	[redacted]	son		13	M	unmarried	metric	student
4	[redacted]	wife of head		40	F	married	illiterate	Home based work
5	[redacted]	son's wife (2)		13	F	married	illiterate	Home based work
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

for 3: co-resident or not. In case of not co-resident, please write place name where he/she lives now.
 for 6: married;M, never-married;NM, widowed;W, divorced/separated;D
 for 7: illiterate;I, literate;L, upto 5 standard;P, upto 8 standard;N, upto 12 standard;H, graduate and above;G
 for 8: cultivator;C, agricultural labourer;AL, other wage labourer;WL, self-employed business or trade;SE, others;O

I-4 If you have any other child who died before, please give details.

	sex	age of death
1	M	8 years
2		
3		
4		

II. Assets:

II-1 Do you and your household members have any land? YES NO

If YES, how many bighas you and your household members have in total?

12 ^{Acres} bighas (* In stead of bighas, acre or ha can be used.)

11-2 Do you live in your own house? YES NO

11-3 Agricultural assets and durables.

	numbers	when you got
tractor	—	years ago
electric pumping machine	—	years ago
diesel pumping machine	—	years ago
thresher	—	years ago
plough	Two	3 years ago
bullock cart	—	years ago
any other items	3	3 years ago
bicycle	—	years ago
watch	Three	years ago
radio	one	years ago
cassette recorder	—	years ago
television set	—	years ago
any other durables	—	years ago

Handwritten notes:
 For 'any other items': 3 items (Triphani (cultivator), single row oil press).
 For 'watch':
$$\begin{array}{r} 2 \\ 2 - 10 \\ 3 - 10 \\ \hline 10 \end{array}$$

11-4 Cattles

	numbers		numbers
cow	one	pig	—
buffalo	one	chicken	—
goat	—	others	—
Bullocks	—		
Camel	one		

III Housing Condition:

III-1 Please give details about the house in which you live now.

pucca or katcha		number of rooms	electrified	with toilet		when it was built
<input checked="" type="checkbox"/> P	<input type="checkbox"/> K	<u>4</u> rooms	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<u>10</u> years ago

III-2 Source of drinking water

INDIVIDUAL TAB. COMMON TAB. INDIVIDUAL WELL, COMMON WELL, RIVER, TANK, CANAL, OTHERS

IV Savings and loan:

IV-1 Have you ever deposited money in a bank/cooperatives?

YES NO

If YES, do you still have an account in a bank/cooperatives now?

YES NO

IV-2 Have you been indebted?

YES NO

IV-3 If yes, from whom you have borrowed?

BANK, COOPERATIVES, PRIVATE MONEY LENDER, RELATIVES, OTHERS

V Communication:

V-1 Do you/your household members read newspaper/journals?

REGULARLY, SOMETIMES, NEVER

V-2 Do you/your household members listen to the radio?

REGULARLY, SOMETIMES, NEVER

V-3 What kind of programmes do you/your household members prefer?

NEWS, MUSIC, STORIES, SPORTS, OTHERS

Krishi Jyoti
①

V-4 Do you/your household members go to see cinema?

MORE THAN ONCE IN A MONTH, LESS THAN ONCE IN A YEAR, NEVER

V-5 Where do you usually buy necessary items? (mark)

	in the village	near by village	nearest town	other places
food items			<input checked="" type="checkbox"/>	
cloth, clothes, footwear			<input checked="" type="checkbox"/>	
durables			<input checked="" type="checkbox"/>	

V-6 Have you ever been to the following cities?

(for Hissar)			(for Pusa)		
Delhi	YES ✓	NO	Patna	YES	NO
Chandigarh	YES	NO ✓	Ranchi	YES	NO
Bombay	YES	NO ✓	Varanasi	YES	NO
			Calcutta	YES	NO
			Delhi	YES	NO

V-7 If you have ever visited above cities, please give the reason for it.

VISITING RELATIVES, SHOPPING, EMPLOYMENT, BUSINESS, CLINIC/HOSPITAL, OTHERS

VI Migration:

VI-1 What is your birthplace? Murban THIS VILLAGE, OTHER THAN THIS VILLAGE

VI-2 Where was your former residence, if any? No

VI-3 If you have moved into this village, No

When did you come here? _____ years ago

Why did you come here? EMPLOYMENT, MARRIAGE, TO JOIN THE FAMILY, OTHERS

What was your occupation in the former place, if any? _____

VI-4 Have you ever worked outside the village? YES NO ✓

If YES, Where did you work? _____

How long did you work? _____

What kind of work did you do? _____

VII Occupation and Income:

VII-1 What is your main occupation? CULTIVATOR - A ✓
 AGRICULTURAL LABOUR - B
 OTHER WAGE WORKER - C
 OTHERS - C
 NON-WORKER - D

VII-2 What is your secondary occupation, if any? No

CULTIVATOR, AGRICULTURAL LABOUR, OTHER WAGE WORKER, OTHERS

VII/A (for Cultivator)

A-1. size of your operational holding (own + lease in - lease out)

12 ^{acres} ~~higher~~ (acre/ha)

A-2. What crop are you cultivating this year?

crop	Ares dighas (acre/ha)	average yield (kg)	introduction of HYV / improved seeds				
			proportion (part)				since when 0-5%
			100%	50-100	25-50%	5-25%	
rice Bajra	3.0	480	✓				15 years ago
wheat	3.0	1600	✓				15 years ago
cotton sugar cane	5.0	480	✓				8 years ago
pulses	4.0	320			✓		years ago
maize Guar	3.0	320		✓			years ago
jowar (Fertile)	0.5	12000					years ago
Chickpea pigeon	—	—					years ago
vegetables	0.5	100					years ago
oilseed	4.0	400					years ago
others	—	—					years ago

A-3. Proportion of land irrigated

100% ✓ 50-100% 25-50% 0-25% 0%

A-4. Source of irrigation

TUBE WELL, ✓ SHALLOW WELL, RIVER, CANAL, TANK, OTHERS

A-5. Labour pattern

- ✓ a. only by you/your household member's labour
 ✓ b. by you/your household member's labour and hired labour
 c. only by hired labour

A-8. If you hire labourers, how many mandays per month you hire?

peak season (oct months) 4 labourers x 30 days
 non-peak season (— months) — labourers x — days

A-7. Do you use fertilizer for what crops? Yes

wheat - 50 kg N, 25 kg P₂O₅, Bajra, 25 kg N, 12 kg P₂O₅
 cotton - 25 kg N, oil seed - 20 kg N,

A-8. Is your produce is enough for your household self-consumption? YES NO

If NO, how many month you have to buy food grains?

ENTIRE YEAR, MORE THAN 6 MONTHS, MORE THAN 3 MONTHS, LESS THAN 3 MONTHS

A-9. Do you sell your agricultural produce? YES NO

If YES, Proportion of self-consumption out of the total produce

100%, 50-100%, 25-50%, 0-25%, 0%

A-10. How many rupees did you get by selling your agricultural produce last year?

by selling rice *Abu*: 15000 rupees by selling wheat: 5000 rupees

by selling sugar *Bajra*: 1000 rupees by selling others: 1500 rupees

VII/B (for Agricultural Labour)

B-1. How many days do you/your household members work as agricultural labour?

	at peak season / per month	at non-peak season / per month
you <i>male</i>	30 days	20 days
Wife <i>Female</i>	15 days	5 days
<i>Small family children</i>	15 days	5 days

B-2. Wage rate for full-day work

	cash- (Rs.)	cash and kind (Rs.) (Kg and item)	kind (Kg and item)	with sent or not
ploughing				
planting				
weeding				
harvesting				
thresting				
others <i>cutting</i>	<input checked="" type="checkbox"/>	<u>200/06 rs 30/ct.</u>	No	No

VII/C (for Other Wage Worker and Others)

No

- C-1. What is the nature of your occupation? _____
- C-2. Where do you work? _____
- C-3. How many days do you usually work per month? _____
- C-4. How many rupees do you earn per month? _____
- C-5. Since when have you been engaging in this occupation? _____

VII/D (for Non Worker)

D-1. Are you seeking / available for work? YES NO

VIII Family Planning:

VIII-1 How many children do you have now? 4

VIII-2 Do you want more children than you have now? YES NO

If YES, how many more children do you want to have? _____

If YES, what is the main reason for desiring more children? _____

VIII-3 How many children are ideal in your opinion (Circle one from the below)

1. 2. 3. 4. 5. 6. 7 and more

VIII-4 Do you prefer sons to daughters? YES NO

If YES, what is the main reason for it? 7. help + support up families

VIII-5 Are you practicing Family Planning now? YES NO

If YES, since when you are practicing Family Planning? 15 years ago

If NO, — Have you ever practiced Family Planning? YES NO

If Yes, why have you stopped to do so? _____

If No, why have you not practiced Family Planning?

- a. I do not have enough children
- b. Family Planning is not good for health
- c. Family Planning is not good from moral point of view
- d. Family Planning is not good from religious point of view
- e. The partner/family member does not like Family Planning
- f. Others

VIII-6 If you are practicing Family Planning/have any experience of Family Planning, what is the method?

STERILISATION PILLS, I.U.D., TRADITIONAL METHOD

VIII-7 From where do you get information and tools of Family Planning?

PRIMARY HEALTH CENTRE, VILLAGE HEALTH WORKER, PRIVATE CLINIC, OTHERS

IX-1. Whether participated in any of Govt. Schemes of rural development.
If YES, explain the details.

IX-1-2 Which Schemes?

IX-1-3

- 1) Food for work-Programme (NREP) ^{When} 1) Before 1975-
2) IRDP (2) Before 1975-80
3) TRYSEM 3) After 1980
DWGNA
4) IODP
5) Others

IX-1.4 Benefits obtained by participation

- IX-1-4 1) Subsidy Less than Rs.1000, Rs.1000-3000
(1) (2)
Rs. More than Rs.3000/-
(3)
2) Loan from banks Less than Rs.1000, Rs.1000-3000
(1) (2)
More than Rs.3000/-
(3)
3) Kinds Milch cow, Goat, Cart, Rikshaw cart
(1) (2) (3) (4)
Agricultural Implements, seeds & fertilizer
(5) (6)
4) Training/Education opportunity
Attended Training/Education Course
Once, More than once
(1) (2)
5) Extension Service
1. VLV came to the door and taught how to increase production.
2. VLV taught how to apply for the subsidy & credit
3. Bank people came and taught how to apply for credit.

IX Development Scheme:

IX-1 Have you/your household member participate in any governmental scheme of rural development? YES NO

If YES, please explain the details.

(When, which scheme, purpose, amount of the help you got, result.....)

IX-2 What would you think about the governmental development schemes?

Before 1975
1975 - 1980
Post - 1980

IX-3 If you are not interested in applying for the schemes, please explain reasons

- a. Scheme is not suitable for your needs
- b. Procedures are too complicated
- c. Qualifications are too limited
- d. Information is not enough
- e. Others

IX-4 Are you participating in Panchayat activities? YES NO

If YES, what kind of activities are you participating in?

PANCHAYAT MEMBER, COMMITTEE MEMBER, OTHERS

IX-5 If you have any type mutual help arrangements in your village, please give the details.

(Such as exchange of labour in agricultural peak seasons, voluntary works to make/maintain common assets, help on such occasions as marriage/funeral.....)

1. To participate in social functions
2. To help in terms of labour during peak seasons.
3. To make use of common assets effectively.

4. BDO instructed his men to help me

5. Dy.B.Ext. Officers helped to facilitate in obtaining services from Government/banks/fertilizer, insecticide dealers.

- I. Household : _____
I.1 Name of the Head : _____
I.2 Caste : Tat.

Family Planning (Respondent Married/Female)

Name of the Respondent _____

1. How many children do you have now? four (Two male & Two Female)
2. Do you want more children than you have now? Yes/No No
X If Yes, how many more children do you want to have? _____

If YES, what is the main reason for desiring more children? X

3. How many children are ideal in your opinion (Circle one from the below).

1, (2), 3, 4, 5, 6, 7, and more.

4. Do you prefer sons to daughters? YES/NO NO

If YES, what is the main reason for it? To continue generation.

5. Are you practicing Family Planning now? YES/NO NO

X If YES, since when you are practicing Family Planning? _____

If NO, -- Have you ever practiced Family Planning? YES/NO.

If Yes, why have you stopped to do so? _____

If no, why have you not practiced Family Planning?

- a. I do not have enough children.
- b. Family Planning is not good for health.
- c. Family Planning is not good from moral point of view.
- d. Family Planning is not good from religious point of view.
- e. The partner/family member does not like Family Planning.
- f. Never thought of
- g. Others.

6. If you are practicing Family Planning/have any experience of Family Planning, what is the method?

STERILISATION, PILLS, LOOP, NIRODH, TRADITIONAL METHOD. (12 years back)
(M)

7. From where do you get information and of Family Planning?

PRIMARY HEALTH CENTRE, HEALTH VISITOR, PRIVATE CLINIC,
RADIO, POSTER/MAGAZINE, TELEVISION, OTHERS.

8. From where do you get tools of family Planning? (Primary

X Health Centre, H.V., Private Clinic, Medical Shop/Other
Shops/Others.

I. Household

1.1 Name of the Head

1.2 Caste

Family Planning (Respondent Married/Female)

Name of the Respondent

1. How many children do you have now? 4

2. Do you want more children than you have now? Yes/No. ✓

If Yes, how many more children do you want to have?

If YES, what is the main reason for desiring more children?

3. How many children are ideal in your opinion (Circle one from
the below).

1, 2, 3, 4, 5, 6, 7, and more.

4. Do you prefer sons to daughters? YES/NO ✓

If YES, what is the main reason for it? To help & assist of families

5. Are you practicing Family Planning now? YES/NO. ✓

If YES, since when you are practicing Family Planning? 15/7/75

If NO, -- Have you ever practiced Family Planning? YES/NO.

If Yes, why have you stopped to do so? _____

If no, why have you not practiced Family Planning?

a. I do not have enough children.

b. Family Planning is not good for health.

c. Family Planning is not good from moral point of
view.

d. Family Planning is not good from religious point
of view.

e. The partner/family member does not like Family
Planning.

f. Never thought of

g. Others.

6. If you are practicing Family Planning/Inve any experience of Family Planning, what is the method?

M STERILISATION, PILLS, LOOP, NIRODH, TRADITIONAL METHOD.

7. From where do you got information and of Family Planning?

✓ PRIMARY HEALTH CENTRE, HEALTH VISITOR, PRIVATE CLINIC, RADIO, POSTER/MAGAZINE, TELEVISION, OTHERS.

8. From where do you got tools of family Planning? (Primary

Health Centre), H.V., Private Clinic, Medical Shop/Other Shops/Others.

