

A P P E N D I X : 1

SCHEDULE FOR SOCIO-ECONOMIC AND DEMOGRAPHIC SURVEY OF FAMILIES.

Families.

A] Location:

1. Name of the village/hamlet.
2. Gram Panchayat.
3. Tehsil.
4. District.

B] Details About Family:

1. Surname of the family.
2. Name of the family-head.
3. Total number of persons in the family.
4. Age of all the persons in the family.
5. Sex of all the persons in the family.
6. Relation of each person mentioned above with the family-head
7. Marital status of each person in the family.
8. What is the education of each person mentioned above?
9. Primary occupation of each person mentioned above.
10. Secondary occupation of each person mentioned above.
11. Specification of kins of the family in the village.
12. What is the religion of the family head?
13. What is the caste of the family head?

C] Details About Landholding Of The Family:

1. Name of the owner of the land in possession of your family.
2. Specify the size of the land.
3. Is there wasteland in possession of your family?
4. Specification of the size of the wasteland.
5. Is there land belonging to your family, but at present handed over to somebody else?
6. Name the person to whom land has been handed over?
7. Specify the relationship of the person with your family.
8. Is there any land commonly cultivated by your family with others?
9. Specify the location of this land.
10. Name the person who is officially recorded as owner of this land.
11. Specify the relationship of this person with your family.
12. Specify the size of this land.
13. Are any varieties cultivated in the immediate vicinity of your house?
14. Who is the owner of this land?
15. Specify the relationship of this person with your family in case he /she is not a member of your family.
16. Specify the size of this land.

D] Details About Domestication:

1. Are there domesticated animals with your family?

2. Specify the number of each type of animals mentioned below that are being domesticated by your family.

Oxen	Milch-cow	He-buffalo
She-buffalo	Calf	Pigs
Sheep	Goats	Poultry
Ducks	Pigeons	Other Varieties

E] Details About House:

1. Name the owner of the house in which your family lives.
2. Describe the structure of the house.
 - a) Walls (Made up of mud/stones/bricks/wooden planks/iron-sheet/grass stalks.)
 - b) Floor (Unmade/marbled)
 - c) Roof (Made up of not baked tiles/baked tiles/wooden planks/iron-sheets/grass stalks)
3. Specify the number of rooms in your house.
4. Specify the size of your house.
5. Specify those parts of your house which are used for the following purposes :
 - a) Sleeping
 - b) Bathing
 - c) Toilet
 - d) Changing Clothes
 - e) Cooking
 - f) Eating Food
 - g) Washing Utensils
 - h) Reading And Writing
 - i) Storage Of Grains
 - j) Storage Of Vegetables

k) Space For Domesticated Animals

6. If any of the purposes is not served in your household, specify the alternative being used.

F] Details About The Production And Income:

(Specify with reference to last year)

1. What type of crops and vegetables were cultivated by your family?
2. How many times in the year these types of crops and vegetables were cultivated?
3. In which month each respective type was cultivated?
4. How much yield was obtained with respect to each type?
5. From the above types, which were sold in the market?
6. If sold, in an year how much of each type was sold?
7. How much return was obtained with respect to each type sold in the market?
8. From the total yield how much was utilised by your family?
9. If you have Milch-cows, How much total milk is approximately obtained in a day?
10. If you have sheep, how much total milk is approximately obtained in a day.
11. Are eggs daily provided by the domesticated fowl in your family?
12. If yes, what is the approximate quantity?

G] Details About Cultivation Of Land :

1. Did you keep any part of your land fallow during the last year?
2. Do you keep the same part of your land fallow every year?

3. Usually how much land is kept fallow by you?
4. Before keeping the said land fallow during last year, what types of crops were cultivated there?
5. Which impliments are used by you for the following purposes?
 - a) Ploughing
 - b) Sowing
 - c) Cutting
 - d) Sieving
 - e) Water Supply
 - f) Adding Fertilizers
 - g) Adding Pesticides
 - h) Stocking Of Harvested Crop
6. How many items of each impliment mentioned above are possessed by your family?
7. From the total land possessed by your family how much is permanently irrigated?
8. What do you usually cultivated in the irrigated land?
9. Which items from below are possessed by your family?
 - Bicycle
 - Motor cycle/Scooter
 - Car
 - Bullock cart
 - Any Other Vehicle
 - Transistor/Radio
 - Television
 - Cassette Or Record Player
 - Wall Clock

Wrist Watch

Sewing Machine

Other Valuables

INFORMANT INTERVIEW SCHEDULES FOR IDENTIFICATION OF
INTERPERSONAL COMMUNICATION NETWORKS.

SECTION : 1.

1. What is the type of land belonging to you ?
 - A) Fertile Black.
 - B) Black with Calcium.
 - C) Fallow.
 - D) Other Type [Describe]
2. Do you find land of a different type other than mentioned above ?
 - A) Yes. B) No.
3. Is there a farmer in your village who possesses a land similar to you but cutivates different kind of crop ?
 - A) Yes. B) No.
4. If answer to question no. 3 is Yes, Please, give following information.

Name of the Farmer	Type of land in his possession.	Name of the crop.	Relationship
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5. Please, give following information if answer to question no (2) is "Yes".

Farmer's Name	Type of soil in Land.	Relationship with the respondent.
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Guideline : Each type of relationship is identified with an alphabet. Enter the particular alphabet in the column depending upon all types of relationship between the respondent and the identified person.

From the same family (A). From the same village (B), Friendship (C), Kins (D), Neighbours (E), Co professionals (F), Casual acquaintance (G), Family acquaintance (H), Acquaintance through intermediary (I).

SECTION : 2.

1. Please, give information regarding following points.

Temperature	Period	Type of soil	Produce from Land.	Yield as Expected (Yes/No)
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1. Hot summer

2. Severe Winter

3. Humid air

Guideline : Respondent should give above information about himself / herself and his / her family.

2. Please, give information regarding following points.

Name of the farmer with type of soil different from Yourself.	Type of soil	Crop Yield-Yes/No.		
		Summer	Winter	Humidity

1.

2.

3.

4.

3. Write the answers to following question in front of all persons mentioned in the previous question.

A. Name -

B. Did this person ask you anything regarding expected / unexpected yield during Summer / Winter / Humidity ?

- C. What did this person ask if the answer of question no. 3B is 'Yes'.
- D. Did you ask anything regarding expected / unexpected yield during summer / winter / humidity ?
- E. If answer to question no. 3d is 'Yes' What did you ask ?
- 4.A. Do the villagers discuss among themselves about expected / unexpected yield ?
- B. If the answer to above question is 'Yes' What discussion occurs ?

SECTION : 3

1. Give following information regrding precipitation & crops.

What produces do you obtain ?	Name the produce different from yours in the village.	Name of the person with different produce.	Relatinshing with yourself.
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Pains came in time		1.	
		2.	
		3.	
		4.	

Pains came late.		1.	
		2.	
		3.	
		4.	

=====

- A. If rains come in time what produces are obtained ?
Have you discussed about this point with anybody
from outside the village ?
- B. If the answer to the above question is 'Yes' please,
mention the name, relationship with yourself and
name of the village of that person.
- C. What did you exactly discuss with this person ?
- A. If rains come late than usual then what produces are
obtained ? Have you discussed about this point with
anybody from outside the village ?
- B. If the answer to the above question is 'Yes', Please,
mention the name, relationship with yourself and name
of the village of that person.
- C. What did you exactly discuss with this person ?

SECTION 5 .

SEASON	CROPS which varieties do you cultivate ?	Which varieties different from yours are cultivated in the village ?	Name those persons taking varieties different from yours ?	Do you protect crops on your own (yes

Nature of advice/help	Name of the villagers to whom you give advice/help regarding crop protection.	Nature of advice/help	From whom do you bring Agricultural appliances ?	To whom do you give Agricultural appliances ?	Who the village participates in agricultural activities by you ?	To whom from the village do you go for partici- pating in agricul- tural activities
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2 A. Do you take advice/help regarding crop protection from anybody from outside the village ?

2 B. If answer to above question is "Yes" then give the name of that person and his family.

2. C. What is the exact nature of advice /help ?

2. D. Does the same person give advice/help to somebody else from the village ?

2. E. If answer to above question is "Yes" specify the person to whom advice/help is given ?

2. F. Please, give exact nature of this advice/help.

SECTION 6.

1. Is their community owned land in your vilage ?
2. If answer to above question is "Yes" what use of the land is made ?
3. What additional uses of the land will be suggested by you ?
4. Please, name those persons from the village/from outside who can take decisions in the interest of the village ?

SECTION : 7

We exchange grains and prepared food in daily life.
Please, give information regarding that activity.

Type of grains Receiver Type of grains Transmitter

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2.

Prepared/cooked Receiver Prepared/cooked Transmitter
food food

SECTION : 4

Give information about yourself and neighbouring landholders regarding land management and rainwater draining.

Person	Soil erosion occurs (Yes/No)	Where the silt goes	Relationship with the landholder in whose land the silt goes
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2. A. Do you discuss with the neighbouring landholders about the soil erosion ?
- B. If answer to above question is 'Yes' . what discussion takes place ?
- C. Do you take measures against the problem ?
- D. What measures do you take ?
3. A. Have you discussed soil erosion problem with somebody from outside the vilage an any occassion ?
- B. If answer to above question is 'Yes' with whom did you discuss ?
- C. What relationship do you have with that person ?
- D. What discussion you exactly had ?

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From the same family (A), From the same village (B), friendship (C), Kins (D), Neighbours (E), co-professionals (F), Casual acquaintance (G), Family acquaintance (H), acquaintance through intermediary (I)

SECTION : 8

Give information regarding new crops / crop varieties cultivated in the last five years in the village.

1. Crop/Variety
 - A. Who cultivated first ?
 - B. From where they obtained the information ?
 - C. Did they obtain expected yield ?
2. If you do not belong to the group of persons beginnings the above cultivation -
 - A. Did you try the cultivation afterward ?
 - B. If you tried, from when in the group above you obtained the advice ?
 - C. What was the advice ?
3. A. What is the cause for the stated yield ?
 - F. Did you advice somebody to cultivate the spacific variety ?
 - B. Did you give help ?
4. A. Did anybody from outside the village give advice /help regarding new crops in your village ?
 - B. Nature of the advice / help ?

5. Give following information regarding seeds, fertilizers and insecticides.

Item	Seeds	Fertilizers	Insecticides
A. Variety In Use			
B. Source			
C. Other Known Varieties			
D. Source Of Information In The Village			
E. Reciever Of Information In The Village			
F. Source Of Information From Outside The Village			
G. Reciever Of Information From Outside The Village			
H. Which Variety Do You Give To Others ?			
I. Which Variety Do You Take From Others ?			

8. From whom you obtained the information about causes basic to your opinion ?
9. To whom in the village you gave information regarding above causes ?
10. Is drinking water brought by you clean ?
11. What do you do to clean the water ?
12. If you think that it is not possible to clean water on everyday then what should be done ?

13. From whom you obtained this information regarding the cleaning of water ?
14. To whom in the village did you give this information ?

SECTION : 9.

1. From where do you obtain drinking water for your family ?
2. Who else uses the same facility besides your family ?
3. Who is in possession of the source of water available to your family ?
4. What other activities go on at the site of your drinking water facility ?
5. Who performs which activity from above in your family ?
6. Besides your family who else from the village uses the same site for which activities ?
7. A. Which activities from question no. (5) according to you should not be conducted at that site ?
8. On what basis you have made this opinion ?

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From the same family (A), From the same village (B), friendship (C), Family acquaintance (H), acquaintance through intermediary (I).

5. Do you discuss regarding following points with persons from outside the village ?

Yes / No.

Name

Relationship

Village

A. Type of soil

B. Yield

C. Expected /
Unexpected Yield

D. Reasons for
given Yield

Guideline : Each type of relationship is identified with an alphabet. Enter the particular alphabets in the column depending upon all the types of relationship between the respondent and the identified person.

From the same family (A), From the same village (B), friendship (C), Distant (D), Neighbours (E), coprofessionals (F), Casual acquaintance (G), family acquaintance (H), acquaintance through intermediary (I).

REACHABILITY IN NETWORKS :

The basic idea of a social network is that an individual's behavior—that is, his role or the performance of his role—may be affected by the ways in which he is directly or indirectly connected to other individuals and the ways in which they in turn are connected to each other.

To find the level of a path from V_i to V_j the following matrix operations are defined.

Given two matrices of the same order, $A = [a_{ij}]$ and $B = [b_{ij}]$, let

$$A \wedge B = [a_{ij} \wedge b_{ij}] \text{ and}$$

$$A \vee B = [a_{ij} \vee b_{ij}]$$

Where $a_{ij} \wedge b_{ij} = \max(a_{ij}, b_{ij})$, and
 $a_{ij} \vee b_{ij} = \min(a_{ij}, b_{ij})$.

For an example of these matrices, consider

$$A = \begin{pmatrix} /- & & -\backslash \\ 1 & 2 & 3 \\ 3 & 1 & 2 \\ 2 & 1 & 3 \\ \backslash- & & -/\end{pmatrix} \qquad B = \begin{pmatrix} /-- & & -\backslash \\ 3 & 2 & 3 \\ 3 & 2 & 1 \\ 1 & 2 & 3 \\ \backslash- & & -/\end{pmatrix}$$

Which gives

$$A \wedge B = \begin{pmatrix} /- & & -\backslash \\ 3 & 2 & 3 \\ 3 & 2 & 2 \\ 2 & 2 & 3 \\ \backslash- & & -/\end{pmatrix} \quad \text{AND} \quad A \vee B = \begin{pmatrix} /-- & & -\backslash \\ 1 & 2 & 3 \\ 3 & 1 & 1 \\ 1 & 1 & 3 \\ \backslash- & & -/\end{pmatrix}$$

(Doreian 1974 :250) .

The next matrix operation table defined, denoted $A*B$,
uses both of these operation.

$$A \vee B * A \wedge B = \begin{pmatrix} 2 & 2 & 3 \\ 3 & 2 & 3 \\ 2 & 2 & 3 \end{pmatrix}$$

A P P E N D I X : 4

ALGORITHM FOR MAXIMUM FLOW IN A NETWORK WITH UPPER LIMITS ON ARCS.

- step 0 (Initialisation). Give each arc a feasible flow, ensuring that flow is conserved at each node other than source node s and the sink node t . (Those may be done by assigning a zero flow to each arc).
- step 1 Label node s with the label $(-, \infty)$ and ensure that no other node is labelled.
- step 2 Scan through the arcs until one (i, j) is found for which either (a) node i is labelled and node j is not and
 $x(i, j) < u(i, j)$ (a forward arc)
or (b) node j is labelled and node i is not and
 $x(i, j) > 0$ (a reverse arc)
if no such arc exists goto step 5
- step 3 If (a) is true, then label node j with the two-part label (a_j, b_j) where $a_j = i$,
 $b_j = \min(b_j, u(i, j) - x(i, j))$. if (b) is true then label node i with the two-part label (a_i, b_i) where $a_i = -j, b_i = \min(b_i, x(j, i))$. If node t is now labelled, do step 4, otherwise do step 2 again.

- step 4 (A flow-augmenting chain has been found.)
 Increase the flow in the flow-augmenting chain by the amount b_t . If node t is labelled $(1, b_t)$, then increase the flow in the arc $(1, t)$. if node t is labelled $(-1, b_t)$ then decrease the flow in $(t, 1)$. Now examine the label on node 1, and repeat the same procedure, until the source is reached, always changing by b_t . Go to step 1.
- step 5 The optimal flow has been found. Stop.

Worked Example.

Suppose that the maximum flow from node 1 to node 4 in the network shown in Fig. 4.6 is being sought, Here, there is a network $(N, A, U,)$ where :

$$N = \{1, 2, 3, 4\}$$

$$A = \{(1, 2), (2, 3), (3, 4), (1, 3), (2, 4)\}$$

$$u(1, 2) = 8; u(2, 3) = 5; u(3, 4) = 6; u(1, 3) = 3; u(2, 4) = 7.$$

The arcs will be scanned in the (slight contrived) order given in A. Using the algorithm, the progress at each step is :

- step 0 Assign zero flows to all arcs.
- step 1 Label node 1 $(-, \infty)$.
- step 2 Arc $(1, 2)$ is case (a).
- step 3 Label node 3 $(2, \min(8, 5-0)) = (3, 5)$, node 4 is now labelled
- step 2 Arc $(2, 3)$ is case (a).

step 3 Label node 4 $(3, \min(5, 6-0)) = (3, 5)$, node 4 is
 now labelled.

step 4 Increase flow in the chain $(1, 2), (2, 3), (3, 4)$ by 5
 so $x(3, 4) = 0 + 5 = 5$.
 $x(2, 3) = 0 + 5 = 5$.
 $x(1, 2) = 0 + 5 = 5$.

step 1 Label node 1 $(-, \infty)$.

step 2 Arc $(1, 2)$ is case (a).

step 3 Label node 2 $(1, \min(-, 8-5)) = (1, 3)$.

step 2 Arc $(1, 3)$ is case (a).

step 3 Label node 4 $(2, \min(3, 7-0)) = (2, 3)$, node 4 is now
 labeled.

step 4 Increase flow in the chain $(1, 2), (2, 4)$ by 3
 so $x(2, 4) = 0 + 3 = 3$
 $x(1, 2) = 5 + 3 = 8$
 (It will be noted that there is an incomplete
 chain in the network, made up of the single arc
 $(1, 3)$).

step 1 Label node 1 $(-, \infty)$.

step 2 Arc $(1, 3)$ is case (a).

step 3 Label node 3 $(1, \min(-, 3-0)) = (1, 3)$.

step 2 Arc $(2, 3)$ is case (b).

step 3 Label node 2 $(-3, \min(3, 5)) = (-3, 3)$.

step 2 Arc $(3, 4)$ is case (a).

step 3 Label node 4 $(3, \min(3, 6-5)) = (3, 1)$, node 4 is now
 labelled.

step 4 Increase flow in the chain $(1,3), (3,4)$ by 1
 so $x(3,4) = 5 + 1 = 6$
 $x(1,3) = 0 + 1 = 1$
 (again there is an incomplete chain $(1,3), (2,3)$).

step 1 Label node 1 $(-, \infty)$.

step 2 Arc $(1,3)$ is case (a).

step 3 Label node 3 $(1, \min(\infty, 3-1)) = (1, 2)$.

step 2 Arc $(2,4)$ is case (b).

step 3 Label node 2 $(1, \min(2, 8-5)) = (1, 3)$.

step 2 Arc $(2,4)$ is case (a).

step 3 Label node 4 $(2, \min(2, 7-3)) = (2, 2)$, node 4 is
 now labelled

step 4 Increase flow in the chain $(1,3), (2,3), (2,4)$ by 2
 so $x(2,4) = 3 + 2 = 5$
 $x(2,3) = 5 - 2 = 3$
 $x(1,3) = 1 + 2 = 3$.

step 1 Label node 1 $(-, \infty)$.

step 2 There are no arcs of case (a) or case (b).

step 5 Stop with the maximal flow from 1 to 4,
 this maximal flow is $x(1,2) + x(1,3)$
 $= 8 + 3 = 11$ unit

A P P E N D I X - 5

REPRESENTATIVE RESPONSES OF THE RESPONDENTS IN THE EXPLORATION OF
THE INTERPERSONAL COMMUNICATION NETWORKS

1) Soil typology and crop pattern

Respondent : Individual 1

IT SEEMS THAT MANY FAMILIES IN YOUR VLLAGE POSSESS SOME PIECE OF
LAND ?

Yes, most of the people in the Wadi have some land-but not very
much.if you go to the neighbouring villages , they have ample land
HOW COME YOU KNOW THE DIFFERENCE?

I am involved in 'balute' activity. So, I have to continuously
visit these neighbouring villages of Kalyan , Thopat wadi ,
Awsar wadi, Kondhanpur etc. you see so many farmers with big
sized land in these villages.

O.K. DO YOU THINK THE LAND IN YOUR VILLAGE AND THESE VILLAGES IS
SIMILAR IN TYPE?

No way ! Their land is very fertile.

HOW COME YOU KNOW THAT?

Everybody knows it , Saaheb.

BUT , TELL ME HOW? DO YOU POSSESS ANY LAND ?

Yes , I have. but very small piece . Do you know even it doesn't
help to support my family.

BHAU. CAN YOU TELL ME SOMETHING ABOUT YOUR LAND ?

"pause"

what do you mean?

I MEAN , WHAT IS THE TYPE OF LAND POSSESSED BY YOU?

Yes-yes, my land is mainly black with calcium. and, whatever

remains is 'padik jamin'. This 'padik jamin' is actually no use.

I SEE, WHAT ARE THE OTHER TYPES OF LAND POSSESSED BY OTHERS IN YOUR VILLAGE?

You see, most of them have land similar to mine . But, still a few have fertile black soil.

AND?

"pause"

IS THAT ALL ABOUT THE LAND IN YOUR VILLAGE?

"pause" - Yes, what else would be their ? "pause" -now, some land is reddish in colour. but, that is also 'padik' land. and , see over there -this land is not worth. What profits it gives ? nothing !

HOW ABOUT THE CROPS IN THE FIELD?

Nothing grows much in my land.

ANY WAY, BUT WHAT ABOUT SOME OTHER VILLAGER WHO POSSESSES LAND SIMILAR TO YOURS ; DOES HE GROW THE SAME CROPS OR VEGETABLES LIKE YOU?

Of course , sir ! "pause"

O.K. CAN YOU TELL ME ABOUT THE OWNER OF THE RED SOIL -SOMEBODY IN YOUR VILLAGE?

What can one tell about it sir?-it will go on for years like this only. Even the owners of this land do not go there. Only cattle go. But , even cattle does not find anything over there. Its only stones over there. Now , my uncle possesses a red soil piece somewhere on the hill.

YOUR OWN UNCLE?

-DO YOU DISCUSS ANYTHING WITH HIM ABOUT THIS KIND OF LAND AND ITS ADVANTAGES OR DISADVANTAGES ?

No - no! what is so special about this land? It is all worthless.

DO YOU DO THE SAME THING WITH SOMEBODY ELSE IN THE VILLAGE?

No. There is hardly any reason to discuss these things with somebody in the village.

2. Seasonality of crop patterns

Respondent : Individual 3

DO YOU HAVE VERY EXTREME TEMPERATURES IN THIS AREA?

Yes. if it is summer it is terribly hot . It burns you.

AND HOW ABOUT THE OTHER SEASONS?

See, monsoon is ok. It doesn't get washed off. Yes, but winter of course is very cold. It is mountain all around us , you know. You have to sleep with one 'pangharun' over other so many times.

TELL ME SOMETHING ABOUT THE SUMMER -WHEN DOES IT SATRT?

See, summer starts in our place exactly around February . Do you see all these barren hills around us. actually these are very green after rains are over. Greenary continues till the mid - February. But you know, we have so many cattle in the village. These hills you see in front of the village they will get denuded soon. What can we do about it!

YES , AND WHEN DOES THE SUMMER COME TO END?

In the first week of June .

SO, NOW TELL ME WHICH ARE USUALLY THE HOTTEST DAYS ?

you mean summer?

YES-

-see in summer it is always terribly hot only.

YES, BUT IS IT ALWAYS THE SAME TYPE OF HOT SUMMER EVERY YEAR OR SOME TIME ITS MORE SEVERE?

Some times it is unbearable. Something is upsetting the nature ! You see, a long many years ago we never had so hot summers in the valley.

REALLY?! WHAT DO YOU THINK IS THE REASON FOR THIS CHANGE?

Now, what can I really tell about all this? Are these things in man's control? Nothing is in man's hand.

(The discussion is interspersed by statements by one of the neighbours of the respondent. He is a second degree cousin of the respondent. He adds" you see, earlier we had a good forest cover in this area. Its almost gone now. Then it always used to be cool. yes , even during the summers. But you know, times are different now!")

WHAT WERE THE REASONS FOR THE WITHERING AWAY OF THE FOREST COVER?

(You see. Earlier this place was reputed to have peacocks. That's why they started calling it "mordari". Now, you see no peacocks in the valley. Man has started living everywhere. They need land to feed the growing number of mouths. Now, tell me isn't it happening in the cities too? How come all people just walk out from here and go to the city? It is not possible.)

OK, SUPPOSE YOU HAVE EXTREMELY HOT SUMMERS IN THE VALLEY SOME TIME ; WHICH CROPS DO YOU TAKE ?

The same ones. See I do not take any crops during summer. My land is very hard and it hardens up more with growing hotness. I try to grow a few vegetables in my 'paras bagh'that's all. Even for that , we have to fetch water from the hand-pump.

WHICH VEGETABLES?

The same usual ones - Chakawat , or some other -

WHICH OTHERS?

Palak.

BUT , DID IT EVER HAPPEN THAT YOU DID NOT HAVE EVEN THIS MUCH

WATER?

Then, what can you do? Keep sitting ! (The neighbour added " water any way is available for vegetables. ")

IS THE AGRICULTURAL LAND LEFT FALLOW DURING THE EXTREME SUMMER?

Then?!

THEN , WHAT ABOUT THE PRODUCTION OF VEGETABLES IN THE GARDEN?

Whatever sprouts up we just eat.

DO YOU SEND THE VEGETABLES TO THE MARKET?

What is this Saaheb! No way , here people do not find enough for themselves. On the contrary , we have to purchase things from market.

OK.TELL ME IS THERE BLACK FERTILE SOIL IN YOUR LAND ?

No.

DO YOU KNOW SOMEBODY ELSE WITH SOIL DIFFERENT FROM YOURS?

There are some people , with black soil.but you see, most of them have dry land only.

HOW ABOUT THE PEOPLE FROM YOUR VILLAGE WITH BLACK SOIL?

There are some of them . they keep taking some scanty crops during the monsoon . Its rice only. Only one man from our village takes wheat. His name is Sahebrao Khatape. He have dug a well in his field.This keeps supplying water to his field throughout the year. Others have black soil, but they can't take any produces other than as they do not have water supply.wheat is grown by Sahebrao between December and February.

WHAT ABOUT THE RAINY SEASON- DO YOU CULTIVATE ANYTHING IN THE FIELDS?

Well, I do not cultivate anything in the field during that

season. But , some people in the village produce vegetables. It is sufficient for a few days of the rains.

OK. NOW CAN YOU TELL ME SOMETHING ABOUT THE SHARING OF EXPERIENCES AMONG THE FARMERS IN THE VILLAGE?

"pause" What do you mean?

SEE, ALL OF YOU FACE ALMOST THE SAME KIND OF CONDITIONS OF AGRICULTURE , IS'NT IT?

Yes.

DO YOU DISCUSS THE POSSIBILITY OF SELECTING CERTAIN CROPS OR VEGETABLES WITH THESE FARMERS?

No, there is no need to do that.

WHY?

We are not doing anything different from each other. So, why should go and ask anything which we already know.

BUT SUPPOSE , A RATHER UNANTICIPATED SITUATION ARISES - ?

But , this kind of situation never arises.

SUPPOSE , IN A PARTICULAR MONSOON, ENOUGH RAINS DO NOT COME, WHAT DO YOU KNOW?

Then I might go to somebody and borrow a few saplings of rice. Any way this variety is most likely to be different from mine. Like last year, I borrowed Samguda Variety from my cousin.

3) Precipitation and crops

Respondent : Individual 5

SUPPOSE THE RAINS COME IN TIME,WHAT CROPS OR VEGETABLES ARE PRODUCED BY YOU ?

Of course , rice. There are local varieties like Samguda , Ambe Mohor etc. Basamati rice too was tried out by me.

AND SUPPOSE THE RAINS DO NOT COME AT ALL?

Then we do not have any growing in the fields.

THEN WHAT DO YOU DO?

Nothing , we go for employment to other places for wage labour.

WHY DID NOT YOU CONTINUE WITH BASMATI PRODUCTION?

No sir, you require some good contacts for that. I don't have good contacts.

IS THEIR ANYBODY IN THE VILLAGE WHO HAVE GOOD CONTACTS?

Yes, they either bring it from their relatives from other places or purchase the saplings from the market.

IS THEIR ANYBODY IN THE VILLAGE WHO CULTIVATES CROPS DIFFERENT THAN YOURS , WHEN THERE ARE GOOD RAINS AND THAT TOO ON TIME?

See , Sahebrao cultivates wheat.

ARE YOU TALKING ABOUT SAHEBRAO KHATAPE?

Yes , he is the one who cultivates something other than rice. But , any way he cultivates wheat whether there are no rains on time or not.

4) Channels of rainwater and land management

Respondent : Individual 2

DO YOU POSSESS LAND?

Yes, I have a small piece of land. It is not much.

WHERE IS THAT PIECE OF LAND?

There ,it is located on the slope of the fortress.

DOES ANYBODY ELSE IN THE VILLAGE POSSESS THE LAND ON THE SLOPE?

Yes , there are a number of people.

DO YOU CULTIVATE YOUR PIECE OF LAND?

Yes, I have to. There is no other alternative.

HOW ABOUT THE OTHER FARMERS WITH LAND ON THE SLOPE LIKE YOU?

What about them?

NO , I JUST WANTED TO KNOW -DO THEY CULTIVATE SOMETHING ON THEIR LANDS?

Yes-yes.

WHAT DO YOU CULTIVATE?

I cultivate some rice .

AND WHAT ABOUT THE OTHERS?

Some of them do like me. But , most of them can grow grass only.

OK. DO YOU EVER REQUIRE TO GO AND DISCUSS SOMETHING WITH THE FARMER NEXT TO YOU?

Yes, now see; I have to go to Namdeo some times and discuss things.

FARMERS HAVE TO SHARE SO MANY THINGS; DO YOU DISCUSS ANYTHING SPECIAL WITH HIM?

No , not really. I have to face the problem of land slide sometime. I mean there is a big flow of water coming down

the slope . This gushing water just carries lot of mud with it and it accumulates in my field. Now , Namdeo's field is located up before mine. he doesn't take care . And all mud drains down to my field.

THEN HOW COME HE IS RESPONSIBLE FOR THE PROBLEM?

See, if he would have constructed the bund on his field boundaries properly ; I definitely would not have to face the problem . Now, every time I have to just go and see if he has constructed the bund.

IS NAMDEO RELATED TO YOU?

Yes, he is my cousine. Our lineage is the same. His father was the first cousine of my father. They worked together in Bomaby.

BUT, IF YOU CONSTUCT A BUND ON THE UPSIDE BOUNDARY OF YOUR VILLAGE , WHY WOULD YOU ANY WAY FACE THIS PROBLEM?

Yes, you are also right. you see , I am already doing that. But it would have been better if he had also constructed a bund along his field. You only tell me , will not it arrest the speed of water? Any way he doesn't want to co-operate with me. Going to him every time has just become a drama.

HAVE YOU DISCUSSED THIS PROBLEM WITH SOMEBODY ELSE IN THE VILLAGE?

Not really. why should you invite others to poke nose in your private problems.

5) Crop protection measures

Respondent : Individual 11

IN DIFFERENT SEASONS , WHICH CROPS DO YOU TAKE?

Only rice. What else we can grow in this place?

IS RICE CULTIVATED THROUGH OUT THE YEAR BY YOU?

Can you imagine so? It is just impossible. Any body in this place can take rice only after monsoon.

Once the rice harvesting is over. We can not work in our own fields.

WHY?

What will we do in the field ? We don't have water in our fields.

WHICH VARIETIES OF RICE DIFFERENT FROM YOURS ARE CULTIVATED IN THE VILLAGE?

In our village there are a few local varieties like Samguda, Sona, Basmati etc.

YOU CULTIVATE ALL THE THREEE VARIETIES?

No-no! I produce only Samguda as my piece of land is filled with lime.

DOES LIME HELP IN GROWTH OF SAMGUDA VARIETY?

No, its not like not that. This variety requires less water than the other varieties. That's why I prefer this variety of rice.

DO YOU KNOW ANYBODY FROM THE VILLAGE WHO CULTIVATES A DIFFERENT VARIETY OF RICE?

Yes ,Sahebrao. He cultivates Basmati rice. Anyway he has water in his field . That's why he can grow such an expensive variety.

DO ALL IN THE VILLAGE FOLLOW THE SAME SYSTEM OF PROTECTION OF RICE?

We use the same pesticides for rice. But, these are not affordable. Very expensive.

DO YOU PURCHASE THE PESTICIDE FOR RICE OR SOMEBODY GIVES IT TO YOU?

I prefer to purchase it from the shop. If there is a problem, then obviously one will approach somebody.

DO YOU TAKE ADVICE FROM SOMEBODY ABOUT CROP PROTECTION?

No, of course if there is a problem I will definitely take advice.

HOW ABOUT ADVICE ABOUT CROP PROTECTION REGARDING OTHER CROPS?

Other crops? It is just not required.

DO YOU GIVE ADVICE TO SOMEBODY OR DOES SOMEBODY APPROACH YOU FOR THAT?

No way. I tell you one thing brother, farmers in my place don't like to meddle in each others work. They take offense in that.

DO YOU BRING GRICUTURAL APPLIANCES FROM SOMEBODY?

Sometimes do. Usually I need 'Petara' for cleaning the land before planting. I may bring it from Sakharam kaka whenever required.

LIKEWISE, DO YOU GIVE YOUR APPLIANCES TO SOMEBODY?

Yes, I do possess the plough. I give it to my brother.

DO YOU CHARGE FOR THAT?

I charge him Rs. 150 .00 per day.

LIKE YOU EXCHNAGE APPLIANCES, DO YOU GO TO SOMEBODY'S PLACE FOR DOING LABOUR?

Yes, I may go to all my cousines' places for doing 'Warangula'. They will come to my place next time to do labour.

However , we do not pay for this practice. This is our tradition.
DO YOU TAKE ADVICE REGARDING CROP PROTECTION FROM SOMEBODY
OUTSIDE THE VILLAGE?

No.

6) Sources of food

Respondent : Individual 12

WHAT DO YOU PRODUCE IN YOUR LAND ?

What else ! The same as everybody over here is producing - rice.

DON'T YOU GROW ANYTHING ELSE IN THE FIELD ?

No. Is there any possibility of that happening in this place ? We are living here only because we do not have any other means of survival.

- After the rice is harvested, everybody in my family goes for wage labour.

WAIT A MINUTE. YOU SAID SOME RICE IS GROWN IN YOUR FIELD. HOW MUCH IS THE YIELD IN THE YEAR ?

Who knows ! You can only guess. It is not sufficient for my family for more than four months after the Diwali festival.

OK. WHERE DO YOU GO FOR WAGE LABOUR ?

Most of the times, we go to the farmers with irrigated land in the neighbouring villages - there near the highway. They have plenty work for the entire year. It is easier to go there instead of going to distant unknown places.

IS THE WAGE LABOUR SUFFICIENT FOR LIVING A GOOD LIFE ?

No way. Its just a hand to mouth existence.

WHERE DO THE EARNINGS OF YOUR FAMILY GO ?

All of it is used for purchasing food. You atleast need a little Bajara and a few Daals for preparing curry. Isn't it ? And you know these shop keepers in this area - they are very expensive. They charge you double the amount you need in some other places. But, you can't help it. You have to live.

WHERE DO YOU GO FOR PURCHASING THE FOOD ITEMS MENTIONED JUST NOW ?

" pause" - Mostly, I buy it from the shop owner in Baag. But, when you need food urgently, then you can't wait to go to Baag. I have to buy it from the shop in the village.

HOW ABOUT VEGETABLES ?

See, some vegetables we grow in our own Paras baag. Otherwise, we go to Kondhanpur and even some times to Shivapur for the weekly market.

7) Agricultural technology through labour exchange

Respondent : Individual 13

IS THERE A NEW VARIETY OR CROP CULTIVATED IN THE VILLAGE IN THE LAST FIVE YEARS?

No.

AND , HOW ABOUT THE FRUIT TREES AND OTHER VARIETIES OF TREES DISTRIBUTED BY THE ORGANIZATION FROM PUNE?

Yes. A number of people from the village have got the saplings. But, there are so many problems with those trees. We do not have water to support them , neither anybody comes to tell us about the precautionary measures to be followed.

WHO STARTED WITH THE CULTIVATION?

Nobody from the village took the lead. These people from Pune only came and gave those trees to everybody. All of us got it together.

DID ALL MANAGE TO OBTAIN SOME BENEFITS FROM THE TREES?

Its not possible. They have planted the trees recently and you see these problems of even the survival of these trees. I do not have many hopes.

ARE YOU USING ANY FERTILIZERS FOR THESE TREES?

No, atleast I don't.

-I don't know about any for these trees.

8) Information about use of village - land

Respondent : Individual 7

IS THEIR COMMUNITY OWNED LAND IN YOUR VILLAGE?

Yes, it is .

FOR WHAT PURPOSE THE LAND IS USED ?

We have cultivated a Samaj Mandir on that. The organization from Pune have helped us in doing so.

DO YOU SUGGEST SOME ADDITIONAL USE OF THE LAND ?

Who am I to tell about that? All in the village must make the decision.

CAN YOU NAME SOMEBODY FROM THE VILLAGE WHO WILL TAKE RIGHT DECISION ABOUT THE COMMUNITY LAND?

Yes, Namdeo kaka Sahebrao and some people in Pune.

9) Exchange of food and grains

Respondent : Individual 15

DO YOU TAKE GRAINS FROM ANYBODY?

Yes, we do take . Some times I bring wheat from my in-laws' place.

DO YOU GIVE GRAINS TO ANYBODY?

No. I can not afford .

DO YOU EXCHANGE FOOD WITH ANYBODY?

Sometimes. You need to do that. We usually exchange the food with my brother's family. Its only on special occa ssion that we give food to others in the village. We have to do that on the occa..ssion of Urus.