

# Questionnaire 1

General information about the project location

## 1. General

Country:..... Project address:.....

Date:.....

## 2. Regional conditions

Climate: Rainfall:  below 500 mm  500 - 750 mm  750 - 1000 mm  1000 - 1500 mm  above 1500 mm  
 Dry period(s): e.g. Nov. - March  
 1. ....  
 2. ....

Altitude above sea level:  below 500 m  500 - 1000 m  above 1000 m

Field data: Classify the soil prevailing in the project region:  heavy  medium  light

Type of soil (e.g. sandy loam):.....

Average cultivated area per farm:  below 1 ha  1 - 2 ha  2 - 5 ha  5 - 10 ha  10 - 20 ha  above 20 ha  
 Average plot size:  below 0.2 ha  0.2 - 0.4 ha  0.4 - 0.6 ha  0.6 - 1.0 ha  above 1.0 ha

Predominant topography of the fields:  level  hilly  steep  very steep

Obstructions in the fields:

Trees:  none  few  many  
 Bushes:  none  few  many  
 Roots:  none  few  many  
 Stones:  none  few  many

Others (e.g. erosion channels, drainage ditches):.....

Remarks/Special features:.....

## 3. Cultivation systems and degree of mechanisation in the project region

Average period of use of a field (in years):.....

Average period of fallow of a field (in years):.....

Please enter the principal types of crops cultivated in your project region in the top lines of the following tables in the order of their importance and mark the predominant types of cultivation of the individual crops by a cross in the appropriate space:

Crop type:	1.	2.	3.	4.
Grown on/in	:	:	:	:
Dams:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:
Rows:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:
Inter-crops:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:

Crop type:	5.	6.	7.	8.
Grown on/in	:	:	:	:
Dams:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:
Rows:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:
Inter-crops:	never	:	:	:
	rarely	:	:	:
	medium	:	:	:
	often	:	:	:

How is work in the agricultural cultivation sector chiefly performed in your project region ?

Manually :.....%

Draught animals :.....%

Tractors :.....%

If tractors are used in your project region please mark the main types of work for which they are used with a cross:

Clearing  Sowing  Harvest  Others:  
 Seedbed preparation  Plant tending  Transport .....

4. Status of the use of draught animals in the project region

Degree of use/dispersal:  restricted to the project centre  
 restricted to farmers supported by the project  
 draught animals are also kept by farmers outside the project

How many percent of all the farmers in the project region keep draught animals:  below 2 %  
 2 - 5 %  
 5 - 10 %  
 10 - 30 %  
 30 - 50 %  
 over 50 %

There is a tradition of animal traction in the project region:  yes  no

How many persons are needed for field work with draught animals (e.g. ploughing):.....

Has the area cultivated by farmers using animal traction been extended:  yes  
 partially  
 no

To what extent does interfarm use of draught animals for field work take place:  none  
 little  
 medium  
 often

What are the main problems of animal traction which occur in your region?

- Lack of suitable draught animals
- Price for draught animals too high
- Problems with animal health
- Animal traction is unpopular
- Nature of the soil in your project region is unsuitable
- Cultivation system in your project region is unsuitable

5. Keeping and feeding of draught animals

Types of draught animals used (please also state the average weight of the animals):

- Oxen .....kg
- Buffalo.....kg
- Horses .....kg
- Donkeys.....kg
- Camels .....kg
- Others:

.....kg

Mixed traction (e.g. see picture):

.....



How kept:  stabling all day  
 stabling at night  
 seasonal stabling  
 no stabling

Type of feed provided:  pasturing only  
 pasturing and supplementary feed  
 no pasturing

Principal types of feed used:  Natural pasture  
 Improved pasture  
 Cultivation of forage

Harvest residues  
 Bought-in feedstuffs  
 Others: .....

Feed chiefly used in times of scarcity (e.g. dry season):

- 1. ....
- 2. ....
- 3. ....
- 4. ....

Feeding condition of the animals at the start of the field work season:  poor  
 adequate  
 good

6. Types of implement and their use

Divide up all the animal traction work performed with draught animals (= 100 %) in your project region. Please also state the types of animal used for the different kinds of work, as well as the method of harnessing (single animal, two animals etc. ).

Type of work	Proportion of total animal traction	Type of animal used	Method of harnessing
Land-Clearing	.....%	.....	.....
Soil Tillage/Seedbed Preparation	.....%	.....	.....
Sowing	.....%	.....	.....
Plant Tending	.....%	.....	.....
Harvest	.....%	.....	.....
Transport	.....%	.....	.....
Others:.....	.....%	.....	.....

How are the above implements transported to the field:.....  
 .....  
 .....

If sowing or plant tending are only carried out rarely or not at all with draught animals, please state the reasons for this (e.g. has never been tried, no suitable implements are available etc.):

Sowing:.....

.....

.....

Plant tending:.....

.....

.....

To what degree are multifunctional implements used ?

- often
- medium
- rarely
- not at all, because:.....

.....

.....

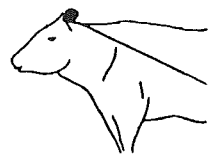
If multifunctional implements are used, please state the name of the implements (e.g. polycultivator) and mark the tools which are chiefly used with a cross:

Name	Tools	
.....	<input type="checkbox"/> Plough	<input type="checkbox"/> Harrow
.....	<input type="checkbox"/> Ridge plough	<input type="checkbox"/> Seeder
.....	<input type="checkbox"/> Cultivator	<input type="checkbox"/> Hoes
	<input type="checkbox"/> Cart	<input type="checkbox"/> Others:.....
		.....

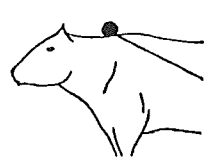
What kinds of harness are chiefly used:



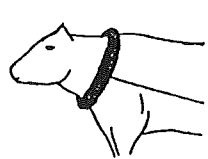
Forehead yoke



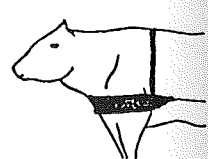
Neck yoke



Withers yoke



Shoulder harness (Collar)



Breast harness

## Questionnaire 2

Soil Tillage / Seedbed Preparation

### 1. Implements used

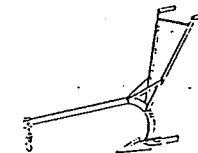
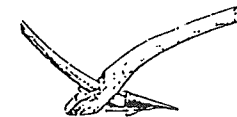
What animal traction implements are used for soil tillage/seedbed preparation (e.g. plough, harrow, cultivator)? Please also state the crops for which these implements are used.

Implement name	Crops
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

### 2. The plough

#### 2.1. Types of plough used in the project region:

Ard:





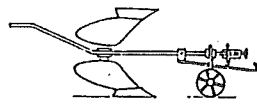
Please give a brief description of the hook ploughs used (design, ploughshare form etc.):

.....

.....

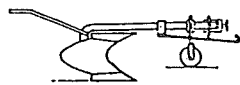
Mouldboard plough:

		supporting wheel/runner		adjustable working width	
		with	without	yes	no
<input type="checkbox"/> Ridger:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> One-way plough:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Half-turn plough

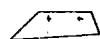
supporting wheel/runner adjustable working width  
with without yes no



Turnrest plough

Others (brief description):.....  
.....

Ploughshares:



Slip share



Plain winged share



Razor-blade share

Others:.....

Can the ploughshares used be re-forged?  yes  no  partly

If yes, is this actually done?  yes  no  partly

Is the plough (e.g. ridger) also used for intercultivation?  yes  no

Use of coulters:  no  yes:  knife coulters  disc coulters

Further explanations/special features regarding the types of ploughs used:.....  
.....  
.....

Working width per ploughshare:.....cm Average working depth:.....cm

Number of operations e.g. for ard 3x (lengthways, crossways, diagonally):  
.....

Working rate in h/ha:.....

2.2. Origin, price and quality of the ploughs used in the project region:

Please enter the make and price of the ploughs used in your project region in the applicable origin column in the following table and classify the ploughs by marking the relevant boxes with a cross or by entering remarks.

		Ploughs from industrialised countries	Ploughs from developing countries	Ploughs from central national production	Ploughs from decentral local production	Ploughs from own construction
Type, make and manufacturer:						
Approximate price:						
Material used for production:	Steel					
	Scrap iron					
	Wood					
	Others: .....					
Weight:	in kg					
Quality of material:	Good					
	Adequate					
	Poor					
Quality of work, (breakdown frequency)	Good					
	Adequate					
	Poor					
Frequency of repairs:	Slight					
	Medium					
	High					
Price in relation to quality:	Appropriate					
	too expensive					
For farmers the plough is:	within means					
	only obtainable with loan					
	too expensive					

Please provide information about poor quality of work, frequent faults (e.g. clogging) and repairs of the aforementioned ploughs.

.....  
 .....  
 .....

To what extent can these repairs be carried out by the farmers or village craftsmen ?

.....  
 .....

2.3. Acceptance of the ploughs:

Do you consider the ploughs you have mentioned to be an appropriate solution for working the soil in accordance with the ecological and technical framework conditions ? (State reasons briefly)

.....  
 .....  
 .....

Are the ploughs accepted by the farmers ? (State reasons briefly)

.....  
 .....  
 .....

Do you know of or have you undertaken any further developments or improvements of the ploughs used in your project region which have had a positive influence on their assignment (e.g. as regards trouble frequency, frequency of repair, efficiency etc.) ?

.....  
 .....  
 .....

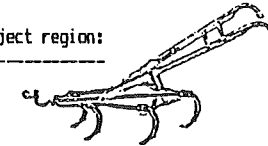
What change would in your opinion have a positive impact on the acceptance of the ploughs among the farmers ? (e.g. lower prices for the implements, simplification of the implements)

.....  
 .....  
 .....

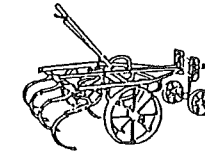
3. The cultivator (here only for seedbed preparation)

3.1. The cultivator types used in the project region:

Cultivators without wheels/runners:



Cultivators with wheels/runners:



Cultivator with prop wheel/runner     Cultivator with support wheels/runners

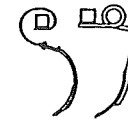
Type of cultivator tines:



rigid tines



semi-rigid tines



spring tines

Number of tines :.....units

Tine points:



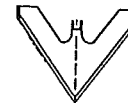
sharp point



chisel share



duckfoot share



sweep share

others:.....

Is the cultivator working width variable:     no     yes

Working width: from:.....cm

to:.....cm

How is the working width of the cultivator set ? (e.g. loosening of the tine fastening and sliding the tines laterally along the frame):

.....  
 .....

Further explanations/special features regarding the types of cultivators used:.....

.....  
 .....

Average working depth:.....cm

Weight of the implement:.....kg

Working rate:.....h/ha

Number of operations:.....

Is the cultivator also used for intercultivation ?     yes     no



3.2. Origin, price and quality of the cultivators used in the project region:

Please enter the make and price of the cultivators used in your project region in the applicable origin column in the following table and classify the implements by marking the relevant boxes with a cross.

		Cultivator from industrialised countries	Cultivator from developing countries	Cultivators from central national production	Cultivators from decentral local production	Cultivators from own design
Type, make and manufacturer:						
Approximate price:						
Material used for production:	Steel					
	Scrap iron					
	Wood					
	Others: .....					
Quality of material:	Good					
	Adequate					
	Poor					
Quality of work, (breakdown frequency)	Good					
	Adequate					
	Poor					
Frequency of repairs:	Slight					
	Medium					
	High					
Price in relation to quality:	Appropriate					
	too expensive					
	within means					
For farmers the cultivator is:	only obtainable with loan					
	too expensive					

Please provide information about poor quality of work, frequent faults (e.g. clogging) and repairs of the cultivators listed on the preceding page.

.....

.....

.....

.....

.....

To what extent can these repairs be carried out by the farmers or village craftsmen ?

.....

.....

3.3. Acceptance of the cultivators:

Do you consider the cultivators you have mentioned to be an appropriate solution for working the soil in accordance with the ecological and technical framework conditions ? (State reasons briefly):

.....

.....

.....

Are the cultivators accepted by the farmers ? (State reasons briefly)

.....

.....

Do you know of or have you undertaken any further developments or improvements of the cultivators used in your project region which have had a positive influence on their assignment (e.g. as regards breakdown frequency, frequency of repair, efficiency etc.) ?

.....

.....

What change would in your opinion have a positive impact on the acceptance of the cultivator among the farmers ? (e.g. lower prices for the implements, simplification of the implements)

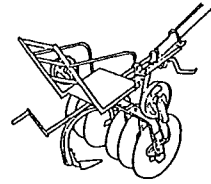
.....

.....

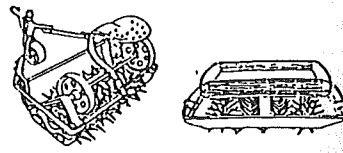
4. The harrow

4.1. Types of harrow used in the project region:

o Disc harrows/rotary harrows:



o Disc harrow

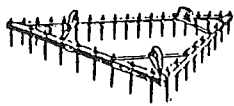


o Rotary harrow

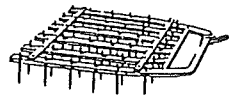
Please describe the design of the disc/rotary harrow (e.g. number and form of the disc/rotary cutters, with/without supporting wheels, working width etc).

.....  
 .....  
 .....

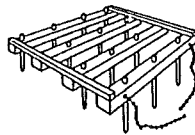
o Tine harrows:



o Triangular form



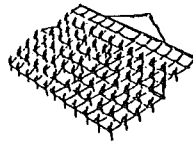
o Trapezoidal form



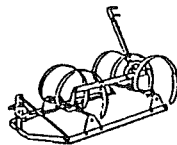
o Rectangular form



o "Zigzag" harrow



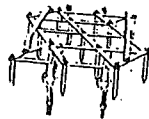
o Chain harrow  
(Net harrow)



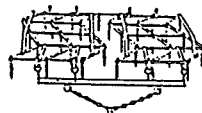
o Spring-tined harrow

o Others:.....

The harrows are used with:



o one unit



o two units

Explanations/special features regarding the tined harrows (e.g. tine angle adjustable, transport runners) :

.....  
 .....

Type of harrow tines:



o pointed



o pointed on one side



o bend



o spoon tines

o others:.....

Number of rows of tines:.....

Number of tines per row:.....

(For triangular harrows: total number of tines:.....)

Working width (total working width for harrows with more than one unit ):.....cm

Weight (total weight for harrows with more than one unit):.....kg

Approximate working depth:.....cm

4.2. Origin, price and quality of the harrows used in the project region:

Please enter the make and price of the harrows used in your project region in the applicable origin column in the following table and classify the harrows by marking the relevant boxes with a cross.

		Harrows from industrialised countries	Harrows from developing countries	Harrows from central national production	Harrows from decentral local production	Harrows from own construction
Type, make and manufacturer:						
Approximate price:						
Material used for production:	Steel					
	Scrap iron					
	Wood					
	Others: .....					
Quality of material:	Good					
	Adequate					
	Poor					
Quality of work, (breakdown frequency)	Good					
	Adequate					
	Poor					
Frequency of repairs:	Slight					
	Medium					
	High					
Price in relation to quality:	Appropriate					
	too expensive					
	within means					
For farmers the harrow is:	only obtainable with loan					
	too expensive					

Please provide information about poor quality of work, frequent faults (e.g. clogging) and repairs of the aforementioned harrows.

.....  
 .....  
 .....  
 .....  
 To what extent can these repairs be carried out by the farmers or village craftsmen ?  
 .....  
 .....

4.3. Acceptance of the harrows:

Do you consider the harrows you have mentioned to be an appropriate solution for working the soil in accordance with the ecological and technical framework conditions ? (State reasons briefly):

.....  
 .....  
 .....

Are the harrows accepted by the farmers ? (State reasons briefly):

.....  
 .....  
 .....

Do you know of or have you undertaken any further developments or improvements of the harrows used in your project region which have had a positive influence on their assignment (e.g. as regards trouble frequency, susceptibility to repair, efficiency etc.) ?

.....  
 .....  
 .....

What change would in your opinion have a positive impact on the acceptance of the harrows among the farmers (e.g. lower prices for the implements, simplification of the implements) ?

.....  
 .....