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Adoption and Outcomes of Hybrid Maize in the Marginal Areas of India

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Annex: Questionnaire

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Interviewer name: _____ Date of interview: _____

Maize-Risk Project Questionnaire 2010

District: _____ Village: _____

Full name of farmer: _____

Other address details: _____ Phone no. if any: _____

I. General Farming Information

1. What is the size of your farm during 2009/10?

	Area in local land units [_____ ; 1 lu = _____ acres]
a) Total cultivable area owned	
b) Area leased in	
c) Area leased out	
d) Fallow land	
e) Total area cultivated	

2. Details of all crops grown by the farmer during 2009/10 (Kharif, Rabi, and Summer crops)

Season	Crop	Area (in LLu)	Irrigated?	Source of irrigation
Kharif			Yes – No	
			Yes – No	
			Yes – No	
			Yes – No	
Rabi			Yes – No	
			Yes – No	
			Yes – No	
			Yes – No	
Pre-kharif (Summer)			Yes – No	
			Yes – No	
			Yes – No	
			Yes – No	

3. Please list all categories of livestock that you own and the number of heads.

Animals/birds	Number	Fed by maize grain/stover
		Yes – No
		Yes – No
		Yes – No
		Yes – No
		Yes – No

II. General Information about maize crops

1. Since when have you been growing maize on your farm? _____ (number of years)
2. Since when have you been growing hybrid maize on your farm? _____ (number of years)
3. Please provide the maximum and minimum yield of maize during the last 5 years in different seasons ?

	Maximum (Q/ Lu)	Minimum (Q/Lu)	Average (Q/Lu)
Kharif			
Rabi			
summer			

4. Please list all the Maize varieties that you grew in the current season (2009/10), stating their common names, the corresponding acreage, and reasons for choosing the particular hybrid/variety.

* Code for choosing: 1= high yield; 2= soil and climate adaptability (e.g. drought tolerance); 3= pest/disease resistance; 4= better output prices; 5= congenial time for harvest (e.g. short duration); 6= experimenting new seeds; 7= preference for household consumption; 8: others

** : FS: Farm-saved; ID: Input dealer; GE: Govt Extension; UNI: Agri. Universities; FR: Friends and relatives; O: Others

*** Maize output used for fodder also _____

Name of grain maize varieties	Area (lu)	Reasons for choosing*	Source of seed**	Total yield (Q)	Marketed yield (Q)	Sold to	Price (Rs/ Q)	Home / livestock consumption (Q)
1.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
2.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
3.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
4.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					

Name of fodder maize *** varieties	Area (lu)	Reasons for choosing*	Source of seed**	Total yield (Q)	Marketed yield (Q)	Sold to	Price (Rs/Q)	Home / livestock consumption (Q)
1.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
2.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
3.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					
4.		1 – 2 – 3 – 4 – 5 – 6 – 7 – 8	FS/ ID/ GE/ UNI/ FR/ O					

5. When you want to buy inputs for maize cultivation, how do you usually finance them?

Please tick the appropriate line(s):

	Tick the option	Interest rate (%)
1) I always have sufficient money to pay the inputs in cash.		
2) I buy them on credit from the input dealer		
3) I get a crop loan from the bank/cooperative society		
4) I get a loan from the informal moneylender .		
5) I get a loan from my friends or relatives		
6) I need credit, but I find it difficult to get it.		
7) Other (explain):		

6. From where do you collect information on maize cultivation methods and technology adoption (Tick the relevant columns)

	Frequency of availability				Usefulness of the information			
	Always	Sometime	Rarely	Never	High	Medium	Low	Not useful
Government agencies (Extension/Universities)								
Private agents (input agencies, traders etc)								
Non-Governmental Organizations (NGOs)								
Mass-media (TV, radio, newspapers etc)								
Other farmers/farmer-groups in the village								
Relatives, and other members in the household								

7. Year of adoption of technologies

Technology	Year
Hybrid maize	
Chemical fertilizers	
Mechanised seeding	
Mechanised shelling	
Others 1.	
2.	

Note: For non-adopters, put “never” instead of year of adoption

III. Inputs and Output in Maize Production (PER ACRE)

The following questions relate to the Kharif, rabi and summers seasons (2009/10), and the farmer’s main maize plots.

1. Plot details

	kharif	Rabi	Summer
	Hybrid/ OPV	Hybrid/ OPV	Hybrid/ OPV
Size of plot (lu)			
Soil type	clayey/ sandy/ loamy	clayey/ sandy/ loamy	clayey/ sandy/ loamy
Name of the main hybrid/variety used (name)			
Is it a hybrid (H) or a variety (v) H/V			
Sowing date (Day/Month)			
Name of main hybrid or variety used (name)			
What was the seed price (Rs. per bag/box)			
Seed rate (kg/Lu)			
Date of harvest on plot (Day/Month)			
What was the total yield per plot (quintals/plot)			
What was the average price you received (Rs./quintal)			

2. Please specify all other inputs that you used during last maize season, their prices per unit, and the total amounts you applied **per plot** on your main plots.

Type of input	Product price (Rs/liter or kg)	Amount used (kg or liter/plot)			
		Kharif	Rabi	Summer	Source *
Organic matter (specify)					
Own FYM					
Purchased FYM					
Fertilizers (specify)					
Insecticides (specify)					
Fungicides (specify)					
Other inputs (specify)					

* 1 - within village trader, 2 - outside village trader, 3- formal govt institution, 4- formal private company, 5- co-operative society

3. Please specify for the 2009-10 maize production how often the following operations were carried out on your main plot and the other details requested.

	How many times?	How long does it take to complete it? (hours/ plot)	How many persons are involved in this operation?		How many of those are usually hired laborers?	
			Male	Female	Male	Female
a) Land preparation						
b) Sowing						
c) Gap filling						
d) Thinning						
e) Manual weeding						
f) Irrigating						
g) Fertilizer application						
h) Scouting for pests						
i) Pesticide application						
j) Harvesting (picking)						
k) Threshing						
l) Cleaning and packing						

4. If you use hired laborers, what daily wage rate do you usually pay to (except harvesting and pesticide sprays)
 a male worker _____ (Rs/day) a female worker _____ (Rs/day)

5. Whether food is provided with wages? Yes – No
 if yes, the cost of providing food per day per worker is, _____ Rs.

6. How do you plow your maize land _____ (1=Manual, 2=Animal, 3=Tractor/Tiller)
 if plowing with hired tractor/tiller, how much do you pay? _____ (Rs/acre/time)
 if plowing with hired animals, how much do you pay? _____ (Rs/day)

7. Levels of constraints in crop production

	Severity of constraint
Drought/scarcity of water/extreme heat	1 - 2 - 3 - 4 - ni - na
Floods/unwanted moisture	1 - 2 - 3 - 4 - ni - na
Unavailability of machines for cultivation	1 - 2 - 3 - 4 - ni - na
Adverse soil conditions (e.g. acidity)	1 - 2 - 3 - 4 - ni - na
Weeds	1 - 2 - 3 - 4 - ni - na
Pests and diseases	1 - 2 - 3 - 4 - ni - na
Market access, outputs	1 - 2 - 3 - 4 - ni - na
Credit availability at low interest rate	1 - 2 - 3 - 4 - ni - na
Labour scarcity	1 - 2 - 3 - 4 - ni - na
Information access on crop production	1 - 2 - 3 - 4 - ni - na
Other _____	1 - 2 - 3 - 4 - ni - na

Code: 1-not significant, 2-somewhat significant, 3-very significant, 4-extremely significant, ni-no idea, na-no answer

IV. Information pertaining to flood / drought

1. Do you face any flood/drought problem during maize cropping season? Yes / No

2. If yes please answer the following details associated with drought/flood

	Kharif	Rabi	summer
Type of problem	Drought/flood	Drought/flood	Drought/flood
How many times in last 10 years?			
Was it Severe during last year?	Yes – No	Yes – No	Yes – No
Was there any crop loss last year due to drought/flood?	Yes – No	Yes – No	Yes – No
If no, was there any yield reduction due to drought / flood?	Yes – No	Yes – No	Yes – No
How much was the value of crop loss/yield reduction (Rs)			
How much was the damage cost (if any) due to drought or flood last year? (Rs)			

3. Are you following any of the coping mechanisms listed below to mitigate flood/drought problem in maize?

Copping mechanism	Kharif	Rabi	summer
Interculture	Yes – No	Yes – No	Yes – No
Bund repairing	Yes – No	Yes – No	Yes – No
Short duration varieties	Yes – No	Yes – No	Yes – No
Sowing in wet soil	Yes – No	Yes – No	Yes – No
Ring bunds	Yes – No	Yes – No	Yes – No
Others 1.	Yes – No	Yes – No	Yes – No
2.	Yes – No	Yes – No	Yes – No

4. How important is it for you that something has to be done with flood/drought related problem in this area? Please tick the appropriate one

Not important at all	Somewhat important	Not important/ not unimportant	Important	Very important
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5. Are you already participating in any crop insurance schemes for maize?.....yes/no (if 'no' go to question 6)

If yes how long much do you pay as annual premium?.....Rs/annum

6. Why are you not participating in any insurance scheme?

- 1 = not aware
- 2= don't believe in scheme
- 3= don't need the scheme
- 4= more formalities
- 5= others specify

If answer to this question is 1 (not aware) go to next item

7. India government has launched a national agricultural insurance scheme for all the maize farmers of the country. You can make use of this scheme to compensate for any revenue loss from cultivating maize **due to drought or flood**. The sum assured for this scheme is up to the threshold yield value of maize in locality. At present the sum assured for Rabi maize in 2010 is Rs. 22,420 per ha. You will get compensated for any revenue loss in maize less than this amount due to drought or flood. But you have to pay a certain amount as premium before the cropping season to avail this scheme. At present this amount is Rs. 448 (ie 2 % of 22420).

7.1 Are you ready to pay Rs.448 as premium?yes/no

7.2 If no, are you ready to pay Rs..... As premium?.....yes/no

7.3 If no why?

- 1= cannot bear the premium
- 2= not interested in scheme
- 3= others

V. General Household Information

1. Please complete the following details of respondent

Sex M/F	Age (Years)	Education (years in school)	Primary Occupation

2. How many members are there in the household? (**including the farmer**)

Adults (age > 15 years): Men _____

Women _____

Children: Boys _____

Girls _____

3. In the **past 30 days**, how much did your household consume of the following items, and what was the equivalent value in Rupees? (*Ask for all goods consumed, including own-produced, bought, gifts and received in-kind.*)

	Quantity in kg	Value in Rupees		Quantity in kg	Value in Rupees
Rice – PDS			Fruits		
Rice – other sources			Vegetables		
Wheat – PDS			Ready-made bread and sweets		
Wheat – other sources			Processed Food (pickles etc)		
Maize			Tea and coffee (<i>grams</i>)		
Other cereals			Other food items		
Tur			Teashops, hotels		
Gram			Cigarettes/ Tobacco/ Pan/ Bidi etc.		
Urd			Alcohol (beer, wine, liquor etc.)		
Moong			Transport/ travel		
Other pulses			Newspapers, books and entertainment		
Sugar			Fuel, gas, charcoal, kerosene oil		
Edible oils			Electricity		
Spices (including chili powder)			Household cleaning & personal care (soap, shampoo, nirmal, hair oil etc.)		

	Quantity in kg	Value in Rupees		Quantity in kg	Value in Rupees
Milk (<i>Liters</i>)			Barber (haircutting, shaving)		
Milk products (Ghee, Curd etc.)			Telephone bill (incl. mobile phone)		
Meat (<i>chicken, mutton</i>)					
Eggs (<i>Number of eggs</i>)					
Fish					

4. What did your household consume in the **past 12 months**?

(Ask for all items consumed, incl. own produce, bought, gifts and received in-kind.)

	Money value in Rupees		Money value in Rupees
Household items (dishes, pots, towels, beddings etc.)		Remittances / transfers Sent to other households or individuals	
Clothing & footwear (e.g., ready-made garments, sarees, shawls, cloth for garments, tailoring charges)		Taxes, litigation and other charges (water tax, farm tax, house tax, house rent)	
Medicine and health costs (doctor charges, medication, and medical devices, e.g., glasses)		Other services (repairs of machinery, of equipment, the house, etc.)	
Ceremonies (weddings, festivals, housewarming, special occasions)		Other major non-food expenses (SPECIFY)	
Education (books, school fees, uniforms etc.)			

5. Social indicators

Have you ever faced a situation of that allows only one meal per day for some time in last 3 years?	Yes – No
The house is property thatched?	Yes – No
Does the farmer own a tractor?	Yes – No
Does the farmer own a maize sheller?	Yes – No
There is electricity connection in the house?	Yes – No
There is a land phone connection in the house?	Yes – No
How many mobile connections are there in the house?	
Have you ever faced a situation of that didn't allow an ill household member to approach doctor due to financial constraints in the last 3 years?	Yes – No
Have you ever got indebted due to crop failure in last 10 years?	Yes – No

Thank you very much for your time and patience!