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Research Results from the Department of Policy Analysis
MADR-Directorate of Economics*

Representative Characteristics of Rural Households in Areas of Central and Southern Mozambique Affected by The 2000 Floods

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Background: The worst floods in nearly 50 years in parts of Southern and Central Mozambique have resulted in death and serious damage to people, crops and livestock, as well as to rural housing, communication infrastructure and small and large-scale business assets of many kinds. As flood waters recede and immediate emergency needs are determined and increasingly met, local and national Government, as well as NGO and Donor organizations are turning attention to conceptualizing and designing longer-term rehabilitation programs and projects. Systematic information about the rural population in the affected areas is needed to assist these efforts. This *Flash* is a shortened version of Research Report No. 40 also published by the Policy Analysis Department, which is downloadable at: http://www.aec.msu.edu/agecon/fs2/mozambique

Objectives: The primary objective of the report is to utilize an existing rural household data base to describe key social and economic characteristics of smallholder farmers in the flood areas.

Methods: The Ministry of Agriculture and Rural Development completed for the 1995/96 agricultural season a survey of smallholder agriculture, interviewing 3889 family sector households (TIA-96). The February 2000 floods affected 22 districts, and TIA-96 obtained data in 10 of these. Based on this overlap (10/22), it was decided to utilize TIA-96 to characterize representative household resources and economic activities in flooded areas of each Province. Descriptive results presented in this study are based on the sample size permitted by the data, and need to be used with caution.

Results: Table 1 is a synthesis of several tables presented in the longer Research Report. It contains estimates of provincial-level averages for key household level-variables. It also reports estimates of overall averages for the entire flooded area in Southern and Central parts of the country. These overall averages are based on a much larger number of observations than the district numbers, but are still limited to the 10 flooded Districts covered by TIA-96. Estimates of household *averages* for different variables are clearly useful, but must also be used carefully. Flood rehabilitation program design needs to be aware of the *range* of needs and the likely significant differences present among the flood victims. To provide users with an indication of the degree of *variability* in the results for any given Province, many tables in the Research Report include a breakdown of overall average results for all flood affected areas by tercile of household area cultivated. Some important characteristics for rehabilitation program and project design shown by these results are:

- Household behavior varies significantly according to area cultivated, and rehabilitation efforts will need to identify and provide variable levels of assistance to meet different needs.
- It will be especially important to understand any special needs of female headed households, who constitute approximately 1 in 5 of all households in affected areas.
- Household cropping patterns across the flooded areas are dominated by maize, but the relative importance of other annual and tree crops varies by area affected. This has implications for the design of seed packs to be distributed to affected households.
- In Maputo, Gaza, Sofala and Manica, while majorities of households reported having fields in "zonas altas", substantial minorities (from 21% in Manica to 47% in Gaza) reported having fields only in "zonas baixas". These households were especially likely to have lost all their crops and many household assets.
- A significant number of households depended on

income from selling labor, as well as on non-farm enterprises. Much of this labor was likely done on neighboring farms, and such opportunities will not be available for some time. Work on larger farms or nearby factories will also have been disrupted for many households. Thus, cash for work schemes will be needed to replace these lost cash incomes.

* The opinions expressed here are the entire responsibility of the authors and do not reflect the official position of the Ministry of Agriculture and Rural Development.

Table 1. Rural Household Demographic, Cropping, Land Holding and Income Diversification Characteristics In Flood Areas

	By Province					For All Areas	By Tercile of HH Area Cultivated		
	Maputo	**Gaza**	**Inhambane**	**Sofala**	**Manica**	**Sampled**	**1**	**2**	**3**
Household Size (# of Members)	6.0	7.0	7.0	5.5	7.4	6.4			
Female Headed Households (% of HH's)	29	20	12	22	14	22			
Mean Area Cultivated (hectares) per ...									
Household **(Ha per HH)**	1.96	2.47	2.72	2.33	3.34	2.40	0.60	1.66	4.88
Person **(Ha per capita)**	0.38	0.42	0.47	0.46	0.15	0.43	0.15	0.37	0.77
Labor adult equivalent **(Ha per AE)**	0.58	0.65	0.69	0.75	0.88	0.67	0.23	0.55	1.24
Households with Field(s) in "Zona Baixa" (% of hh)	60	55	5	50	53	51	48	52	52
Households with Field(s) in "Zona Alta" (% of hh)	58	53	100	78	71	66	57	66	73
Households with Field(s) in Both Zones (% of hh)	22	8	5	29	24	18	9	19	25
Households that Harvested									
Maize **(% HH's Harvesting)**	84	95	95	93	97	92	87	93	95
Rice **(% HH's Harvesting)**	0	5	11	21	4	7	3	9	10
Cassava **(% HH's Harvesting)**	8	40	10	30	11	23	17	22	30
Beans **(% HH's Harvesting)**	39	72	48	42	41	51	41	54	58
Sorghum/Millet **(% HH's Harvesting)**	1	1	75	70	54	27	15	29	38
Sweet Potato **(% HH's Harvesting)**	8	13	2	6	16	9	9	10	10
Sesame **(% HH's Harvesting)**	3	1	11	7	26	6	2	6	10
Peanuts **(% HH's Harvesting)**	34	24	67	36	11	32	25	29	42
Cashew **(% HH's Harvesting)**	10	51	19	32	0	27	23	29	28
Coconut **(% HH's Harvesting)**	0	2	10	9	0	3	2	4	3
Mafurra **(% HH's Harvesting)**	3	24	0	0	0	8	8	8	10
Households Selling Labor Off-Farm (% of HH)	12	31	33	22	27	24	22	23	26
Primarily Farm Labor **(% of HH)**	6	13	18	11	8	11	15	9	9
Primarily Non-farm Labor **(% if HH)**	6	20	15	12	20	14	11	14	17
Households with Non-farm Business (% of HH)	57	31	43	43	60	45	40	45	52
Mean Number of Off-Farm Businesses (% of HH)	1.9	1.5	1.4	1.2	1.4	1.6	1.5	1.7	1.6
Number of Trees per Household (HH that Harvest)									
Cashew **(# of Trees)**	5	46	33	54	1	43	27	58	40
Coconut Tree **(# of Trees)**	2	9	21	21	0	15	5	13	21
Banana Tree **(# of Trees)**	3	6	4	0	0	6	5	7	6
Grapefruit Tree **(# of Trees)**	14	55	19	39	19	36	37	29	42
Mango Tree **(# of Trees)**	5	8	5	15	16	11	6	11	14

Source of Estimated Household Characteristics: *MADER-Trabalho de Inquerito Agricola ao Sector Familiar, 1996*