POVERTY AND AGRICULTURAL DEVELOPMENT IN SUDAN

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1. Objectives & Methodology

Objectives:

- to examine the poverty line, indicators and causes of poverty in rural Sudan

- to analyze the economic efficiency of crops production of the rural poor in dominant farming systems.

Methodology:

- Primary data from mechanized, irrigated and traditional farms.

A. Poverty line and indicators analysis.

B. Binary Logistic Regression (BLR) for poverty causes.
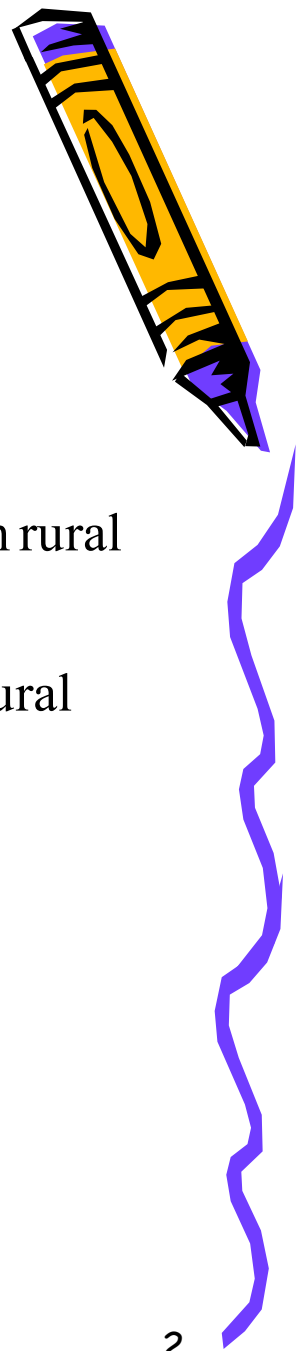
C. PAM analysis:

Table 1: Basic Format of PAM

Prices (Accounts)	Value of out put (Revenue)	Value of Input		Profit
		Tradable input cost	Non-tradable input cost (Domestic factor)	
Private prices	A	B	C	N
Social prices	D	E	F	O
Policy transfer (divergence)	G	H	I	P

Source: Monke and Pearson (1989) .
Note: Private profit: N=A-(B+C); Social profit: O=D-(E+F); Output transfer: G=A-D;
Input transfer: H=B-E; Factor transfer: I=C-F; Net policy transfer: P=N-O.

PAM indicators:

1. Nominal Protection Coefficient (NPC) For input and out put.

NPCI= is the ratio of the private to social cost of tradable input.

NPCO =is the ratio between the private and social revenue of the output.

2. Effective Protection Coefficient (EPC). is ratio of the added value measured at the private prices to that of social prices, measures the total effect of intervention in both input and outputs markets.

3. Domestic Resource Cost (DRC)

4. Private Profit Coefficient (PPC)

Indicators used to compare the relatives efficiency or comparative advantages between commodities

2. Results and Discussions

2.1 Poverty lines and causes in rural Sudan

- Extreme Poverty line is **$0.21** in mechanized, **$0.16** in irrigated and **$0.41**

- in traditional.

- Female-headed households are poorer than the male-headed households.

- The results indicate that having an educated household head reduces the likelihood of being in a higher poverty status.

- In the mechanized the gender of the households' members and the age of the household head increased the likelihood of being in a higher poverty status

- Also, the results show that the poor households do not own houses or obviously lost their houses during the war.

Table 2:Interpretation of PAM Results

Farm	Protection coefficients		
	NPCO	NPCI	EPC
1. Mechanized:			
Sorghum	2.87	0.05	0.05
Millet	1.38	1.21	0.86
Groundnut	7.00	1.41	1.39
Sesame	10.67	1.28	1.01
2. Irrigated:			
Sorghum	1.26	0.19	0.18
Cotton	1.50	0.58	0.41
Groundnut	1.50	0.87	0.70
Vegetables	1.33	0.48	0.20
3. Traditional:			
Sorghum	0.99	0.87	0.42
Millet	0.99	0.87	2.24
Groundnut	0.91	0.89	0.89
Sesame	0.94	0.88	1.07
Watermelon	0.94	0.89	1.06

Notes: NPCO: Nominal Protection Coefficient of Output, NPCI: Nominal Protection Coefficient of Input, EPC: Effective Protection Coefficient. Source: Calculated from authors' model, 2005–2006

3. Conclusions:

✓ The study results argued that the poverty causes were heterogeneous according to the habits, norms and ethnicity of the poor in the various agricultural farming systems.

✓ There are significant differences in the degree of policy transfer for crops across the three farms.

✓ The government policies on main crops self-sufficiency lead to significant allocative inefficiency.

✓ Complying with the competitive prices by reducing raw material costs and increasing the yield per area unit of the rural farmers.

✓ Self-sufficiency could be achieved with smaller deadweight losses by reducing input market distortions

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