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Structural Rigidities in Traditional  
Agriculture of Sudan**

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## Abstract

Due to severe structural problems which the Sudanese economy encountered, the Sudan has implemented an IMF/World Bank package of stabilization and structural changes since 1978. One of the package objectives has been to enhance agricultural output. A producer price incentive (devaluation, producer price announcement, abolishment of state marketing monopolies, reduction of export taxes) was in the heart of the package. These policies, as far as they were applied to the traditional sub-sector (as one of the agricultural sub-sectors) did not result in enhanced output. This paper demonstrates that structural rigidities in traditional agriculture hampered an adequate response to the price incentive. These rigidities are mainly lying in the situation of the product market and in the system of informal credit known as "sheil" in which crops are pledged to creditors at a pre-determined low price. Both donors and the government have not been committed to remove these rigidities, which without a serious programme for their removal will continue to hamper the farmers' response to better prices.

## 1. Introduction

The agricultural sector in Sudan is endowed with an enormous unused potential. The cultivable area amounts to 207 million acres of which less than 10% is actually cropped, and livestock is estimated at around 50 million heads. This sector currently dominates the economy in terms of aggregate production (35% of GDP), generation of foreign exchange (90% of exports), and employment (78% of total labor force). The production system is divided into three sub-sectors:<sup>1</sup>

- a) The irrigated sub-sector, in form of large schemes mainly located in the Central and Eastern Regions, totalling 3 million feddans and managed by parastatals. They mainly produce export crops (cotton, groundnuts), import substitutes (wheat and sugar cane), and food crops (sorghum), all under high import intensity. Area allocations and input distribution as well as water are determined by the management. Prices of major inputs (insecticides, fertilizers, etc.) and crops (cotton, sugar cane, wheat) are determined by the government.
- b) The rainfed mechanized sub-sector, originated in the 1940s when the government attempted to combat food deficits, has expanded since then to reach 6 million feddans. It is mainly located in the Eastern Region and in South Kordofan. With an average holding of 1,000 - 1,500 feddan, each owner (who is not necessarily a farmer) combines hired seasonal labor with a relatively high technology (tractors) along with privileged access to cheap credit to produce sorghum (90%) and sesame (10%). The produce is sold through market channels and inputs are procured commercially, although gasoline allocations are provided by the government.
- c) The rainfed traditional sub-sector which is the subject of this paper, is the largest of all sub-sectors with a total area of 9 million feddans, providing livelihood for the majority of the population. Crops grown are mainly sorghum, millet, groundnuts, sesame and gum arabic, which are cultivated with very low import content. All these crops are also export crops, except for millet. The farming is characterized by the use of family labor and employment of simple traditional tools. In terms of infrastructure and services, the bulk of the sub-sector is located in the least developed areas of Western Sudan.

Sudan has generally pursued an unbalanced development

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<sup>1</sup> Wohlmuth (1987)

concerning the agricultural sub-sectors where "policies and programmes have been oriented to earning foreign exchange and have, therefore, emphasized development of cotton production in the irrigated sub-sector. In the past two decades, policies and programmes have been oriented to generation of domestic food surpluses and have, therefore, emphasized large-scale mechanized farms in the rainfed sector."<sup>2</sup>

When economic conditions started to deteriorate in the end of the 1970s due to a combination of external and internal causes, they forced the government to shift to stabilization measures under IMF/World Bank arrangements, beginning in 1978. In the heart of the stabilization measures were producer incentives directed to increase output in agricultural production.

This paper is an attempt to evaluate these policies and programmes in relation to the traditional agricultural sub-sector, showing their impact on the sub-sector output, and subsequently investigating how institutional and political barriers, which were neglected by both the government and the donors, hampered a significant supply response to price increases contained in these policies. Finally, reform measurements of the public sector and the donors, which are a necessary condition to enable traditional farmers to respond to better prices, will be outlined.

## 2. Agricultural pricing policy: Pre - 1979:

Facing the need to increase its revenues and to protect the interest of the politically strong urban consumers, the government heavily taxed agriculture. Direct taxes were imposed (development, defense, and local taxes) with a different burden on different crops. An implicit tax was also

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<sup>2</sup> quoted from D'Silva (1985, p.17)

imposed through the overvalued Sudanese pound, which remained fixed at US\$ = £S 0.35 from 1956 until 1978, whereas official estimates showed an inflation speeding at a rate between 12.3% and 17.6% per annum during the period 1974 - 1978 (many authors incline to believe that rate is underestimated). Government interventions in the marketing of agricultural export crops during the 1970s exerted further pressure on agriculture. The tax burden for some export crops defined as the ratio between farmgate producer price and economic value at farmgate, was on average about 30% until 1980, as is shown below in Table 1.

**Table 1: Nominal protection coefficients for selected export crops in Sudan**

	1971-1975	1976-1980
cotton	0.78	0.60
groundnuts	0.85	0.67
sesame	0.83	0.59

Note: These figures do not show the influence of the exchange rate which is overvalued and represents an implicit tax.

Source: World Bank (1981, p. 56).

The pricing policies also discriminated against locally produced staple food (sorghum) by subsidizing imported food (wheat). Thus local cereal production was discouraged and the urban preference for imported food was enhanced. This policy exerted also severe pressures on the balance of payments and the budget (via subsidies), diverting resources which could have been used more efficiently.<sup>3</sup> The following Table 2 shows

<sup>3</sup> Medani (1985, p. 686) argued that increased food imports may constrain the imports of means of production and may hinder production including that of food.

import dependency on wheat and compares subsidized bread prices with "Kisra", the staple food from Sorghum:

**Table 2: Import dependency of wheat and real prices of bread and "Sorghum-Kisra" for selected years in Sudan (1970/71 = 100 for relative prices)**

year	Import dependency * %	Sorghum (S)	Bread (B)	Relative Prices (B/S)
1970/71	44	100	100	100
1972/73	51	98	106	108
1977/78	32	106	83	72
1980/81	70	102	61	60
1982/83	79	167	83	45

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\* calculated from Ministry of Agriculture data, Sudan

Source: Institute of Development Studies (1988, p. 83).

### **3. The IMF/World Bank agricultural package for the years 1979-1989:**

Like in many Sub-Saharan African countries, the devastating pricing and taxation policies of the Sudanese government in the face of mounting evidence of the agricultural crisis made the IMF and the World Bank cluster their policy prescriptions around the price incentives approach.<sup>4</sup> As is stated in one of

<sup>4</sup> Although the IMF and World Bank roles differ in timing and emphasis of the policy design, both of them prescribed similar policies towards the

the World Bank reports for Sudan, "Price structure is one of the most important determinants of economic growth.... However, contradictory objectives and the strong influence of special interest groups have turned price policies into a liability for economic development."<sup>5</sup>

Hence:

"The obvious policy instrument to effect overall agricultural production is in a combination of changing the real exchange rate and aligning the farmer prices to the export parity price."<sup>6</sup>

The following measures were therefore applied to Sudan:

- Devaluation of the currency
- Increase of producer prices
- Removal of some public marketing monopolies

These measures are summarized in the following Table 3:

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agricultural sector in Sudan. For the discussion of IMF and World Bank roles with possible overlapping in general see Mosley and Teye (1987, p. 9-10), and Hansohm (1986).

<sup>5</sup> World Bank: Sudan. Problems of Economic Adjustments Vol. II, Sudan, (1987, p. 53).

<sup>6</sup> Ibid p. 71



**Table 3: Major policies in agriculture 1979-1989**

Policies	year when policy measures were enacted
1. Devaluations	1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989
2. Abolition of oil seeds monopoly	1980 to 1986 and 1988 to date
3. Reduction of export taxes	starting in 1981/82
4. Announcement of producer prices	starting in 1981/82

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Source: World Bank (1987) and D'Silva (1985).

These policies were applied to the agricultural sector across the board irrespectively of the specific characteristics of each sub-sector. Furthermore, the World Bank assumed that traditional farmers would even gain more since they have a relatively small need for imported inputs, and the price for their living essentials would be less affected by the devaluation.

Sudan has since then devalued its currency annually and an effective rate applied to exports of US\$ = £S 6.8 in 1989. The following Table 4 reveals that the rate of exchange applied to exports was above the break - even rate for most exports.

**Table 4: Break-even and actual exchange rate for selected crops 1984/85 to 1986/87**

	1984/85		1985/86		1986/87	
	break-* even	actual	break-* even	actual	break-* even	actual
Groundnuts irrigated	0.4	2.1	0.6	2.5	0.9	3.25
Sorghum irrigated	1.8	2.1	2.3	2.5	5.0	3.25
Sorghum mechanized	4.0	2.1	1.4	2.5	2.8	3.25
Groundnuts traditional	2.0	2.1	2.3	2.5	3.2	3.25

\*: Incentive level of zero

Source: World Bank (1987, p.56)

Favourable prices were declared since 1980, when for example the index of real protection for cereals increased from 119% in 1973-1981 to 164% in 1981-1983, and export crops from 63% to 75% during the same period.

In terms of investments during 1980-1987, the main emphasis of the World Bank (and other donors) was put on rehabilitation of the irrigated sector as it would, according to the World Bank, produce rapid and significant production increases. The following Table 5 shows major foreign-financed projects, clearly revealing a bias against traditional agriculture:

**Table 5: Major Public Investment Projects in Sudan 1979-1987**  
**(Amount showing approved loans until 1987)**

Project	Year of operation
1. Gezira Rehabilitation, US\$ 80 m.	1983
2. Irrigated Agriculture Rehabilitation I,II,III. US \$ 200 m.	1980, 1983, 1987
3. Northern Region Pump Schemes Rehabilitation, US \$ 11 m.	1985
4. White Nile and Blue Nile Irrigated Scheme Rehabilitaton, US\$ 67m.	1981
5. New Halfa Irrigated Scheme Rehabilitation, US\$ 20 m.	1987
6. Rahad Irrigated Project, Completion, US\$ 20 m.	n.a.
7. Agricultural Development - South Kordofan traditional, US\$ 20 m.	1987
8. Western Sudan Agricultural Research for Traditional Rainfed Agriculture, US\$ 15m	1981
9. Agricultural Services, Traditional Agriculture in Western Sudan, US\$ 18	1982
10. Agricultural Services in South Darfur Traditional Agriculture, US\$ 13	1982

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Sources: World Bank Reports, Ministry of Finance and Economic Planning and D'Silva (1985)

The above mentioned policies and programmes, however, failed to attain their intended targets of increasing the production of the traditional farmers as will be shown below.

#### 4. Impact of the Incentive Policies:

Evidence shows that the aggregate supply response to increased producer prices is small, though significant, in Sub-Saharan Africa (and Sudan is no exception).<sup>7</sup> Considerable evidence also exists showing a higher response for individual crops to increased prices. Bond (1983) found aggregate supply elasticities for nine African countries to be small with average short-run elasticities of 0.18 and long-run elasticities of 0.21. Cleaver's (1985) study of 31 Sub-Saharan African countries shows that price elasticity implied by his equation, relating agricultural growth to nominal protection coefficient, is 0.15 %. Singh, Squire and Strauss (1988) show an elasticity of 0.2 and 0.7 respectively for the marketed surplus in Nigeria and Sierra Leone in response to price increases. A recent study for Sudan, though cautioning against unreliable data, found a price elasticity of 0.21 and 0.14 for sorghum in mechanized and irrigated agriculture respectively, and an elasticity of 0.11 for millet in traditional rainfed production.<sup>8</sup>

The production response to the price incentive measures listed earlier was not impressive. The overall agricultural growth rate was only 1.2 % during the period 1981/82 - 1986/87. For the traditional sector the following figures (1) and (2), show

<sup>7</sup> For summary of evidence of individual crop response see Bond (1983, pp.710-711). Different conclusions are drawn by different authors in relation to the evidence of aggregate production response to prices. Bond states in her article cited above that indeed short-run elasticities are not large, but long-run elasticities are large, and that since many of the equations contain cross-price effects, these own price elasticities provide some support to the view that overall aggregate supply responds to prices. Streeten (1987, p. 15) states that whatever results researchers have reached, they do not have much significance. World Bank (1981, p. 54) gives the elasticities demonstrated by some authors a very high weight.

<sup>8</sup> See Government of Sudan (1988, p. 32)

the trends in output for sorghum and millet as food crops and groundnuts and sesame as cash crops:<sup>9</sup>

Both area and yields growth rates witnessed a decline during the period 1978/79 to 1986/87. The following Table 6 compares yields and area growth rates of 1968/69 - 1977/78 to those of 1978/79 - 1986/87 in Western Sudan (Kordofan and Darfur provinces), an area that harbours the bulk of the traditional sector.

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<sup>9</sup> Sorghum and millet are the staple food crops in the country, but surpluses of sorghum are also exported.

Figure 1: Food crop production in the traditional sub-sector  
(sorghum and Millet)

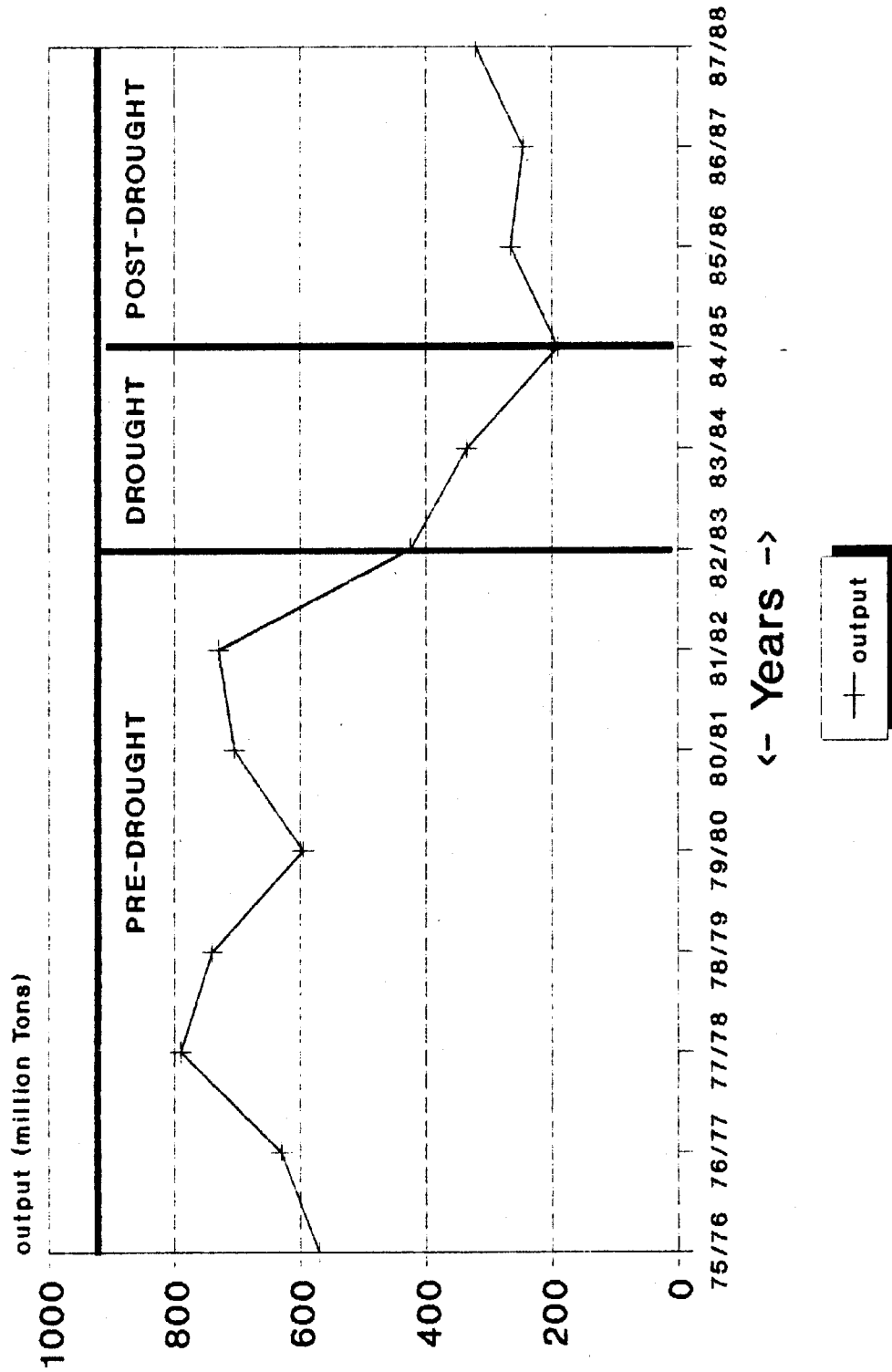
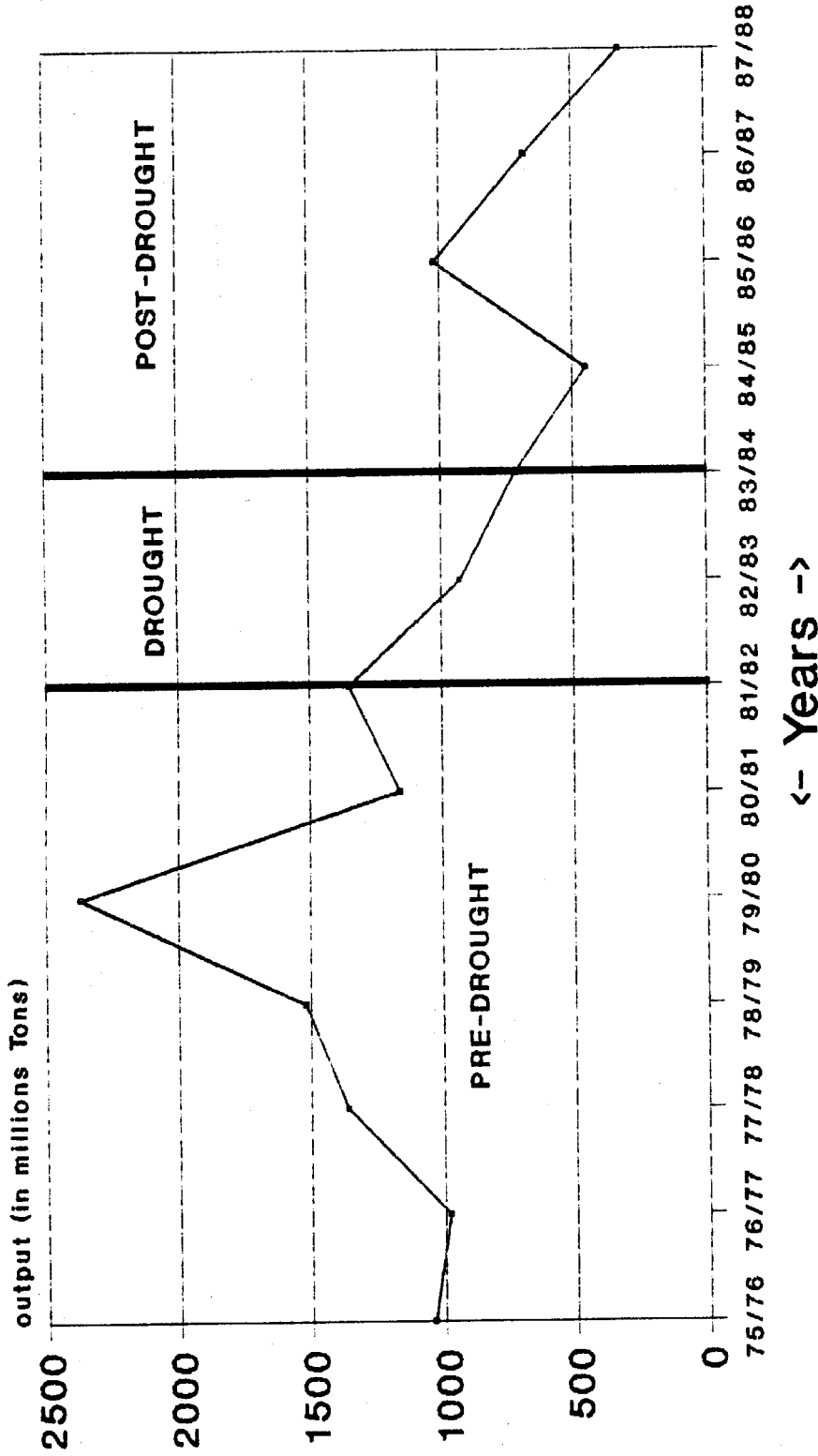


Figure 2: Cash crop production in the traditional sub-sector  
(groundnuts and sesame)



← Years →

—●— output

Compiled from: Agricultural Statistics Yearbook, Ministry of Agriculture, Sudan

**Table 6: Rates of growth of area and yields for Kordofan and Darfur provinces for the period 1968/69 - 1986/87**

	<u>Kordofan</u>		<u>Darfur</u>	
	1968/69- 1977/78	1978/79- 1986/87	1968/69- 1977/78	1978/79 1986/87
<u>Area</u>				
Cereals				
Sorghum	8.7	2.2	10.4	4.4
Millet	13.6	6.5	5.6	2.3
Cash Crops				
Groundnuts	16.8	-15.1	8.9	-5.5
Sesame	6.5	7.3	12.6	-5.5
<u>Yields</u>				
Cereals				
Sorghum	-1.9	-8.1	-4.9	-11.6
Millet	-4.7	-15.0	-5.8	-8.3
Cash Crops				
Groundnuts	-1.0	-9.6	2.4	-4.9
Sesame	-3.0	-8.1	5.4	3.9

Source: Ministry of Agriculture and Natural Resources (1988, pp. 42-43).

The export index also shows a decline in volume for all crops



during 1983/84 - 1986/87 as indicated in Table 7 below:

**Table 7: Index of export volume (1981/82 = 100)**

	81/82	82/83	83/84	84/85	85/86	86/87	87/88
Groundnuts	100	128	104	85	42	16	44
Sesame	100	104	121	81	45	60	89
Sorghum	100	147	70	-	-	97	167
Gum Arabic	100	110	143	113	63	57	57

Source: Compiled from Foreign Trade Statistics, Bank of Sudan Reports, various years

### **5. Constraints to the Supply Response:**

Price incentives and more liberal marketing policies are steps to the right direction. However, they are not, as seen from output performance, in themselves a sufficient condition to stimulate agricultural output in the traditional sector.<sup>10</sup> It is therefore necessary to look beyond the neoclassical economic theory of pricing for the assumptions behind this theory in order to assess the reasons for this slow

<sup>10</sup> Several authors pointed at the importance of other non-price variables. Streeten (1987) advocated what he called the 6 Is; incentives, inputs, institutions, infrastructure, innovation and information. Lele (1989) called for provision of public goods to remedy inefficiencies and absence of product markets, risk and information. Lipton (1987, pp.199) indicated that price distortions are less severe when composed to distortions in public investments. For a critique of the pricing policies as the only variable that matters as is shown by the World Bank, see also Ravenhill (1986, pp.14-16), Green and Allison (1986, pp. 71-72), Please and Amoako (1986, pp.141).

response.<sup>11</sup>

Traditional agriculture in Sudan operates in a different environment in terms of product and factor markets than implicitly assumed by those who have recommended the pricing policies being implemented since 1979. Neither the product markets are competitive, nor the farmers are free from constraints to utilize their factors to maximize their gain from increased prices.

The private marketing system for the traditional sector in Sudan starts from the village (primary markets) to the urban markets with an agent or transporter sometimes in-between and with participants in each stage who may be performing more than one activity (transport, storage, credit etc.). The village crop buyers accept small quantities from farmers and accumulate the crops for sale on the next level. This function is performed by the village shopkeeper or by a specialized crop buyer. The village crop buyer either finances the purchases from his own money or acts as an agent for urban merchants. The second level of the marketing system - urban markets - operates under an auction system trading in large quantities with large merchants, exporters, and big farmers involved. Big merchants normally have their own storage and transport facilities. Another marketing function exists through either farmers or small merchants selling crops to truck owners who in turn sell them at auction markets.

On the demand side of the product markets, the number of merchants who dominate the wholesale as well as the retail trade (through their agents) seems to be small. A study for Western Sudan, which has shown that large numbers of buyers exist in the market studied, could be misleading due to the fact that a market composed of several merchants may be dominated by one family.<sup>12</sup>

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<sup>11</sup> Interesting arguments are presented by Stewart (1988) calling up to look behind neoclassical theory when applied to a different environment than the one it proceeds from.

<sup>12</sup> Government of Sudan (1988, pp.111)

The reason behind the domination of a small number of traders is partly explained by the social and political aspects characterizing the historical development of trade in Sudan. For a long time trading has been a specialized activity carried out by "Jellaba" (people coming from rivernain tribes of Northern Sudan). This was enforced by the special skills (to sell and to buy at the right time, innovative abilities, risktaking, knowledge of markets etc.) which they had acquired and which are necessitated by the seasonality of production, the multitude of small and scattered, independent producers and weak infrastructure in the traditional areas.<sup>13</sup> The high concentration of capital, storage, and transport facilities in the hands of a few merchants (extending their influence to small farmers through agents) is also a contributing factor in market domination. This concentration is considered vital to big merchants. As profits mainly accrue from price fluctuations due to output seasonality and speculative practises, storage facilities of ownership is deemed necessary by big merchants.<sup>14</sup> The seasonal variation of prices is shown below in Table 8 for certain crops for selected years:

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<sup>13</sup> For detailed account of this group and their influence in trade in Western and Southern Sudan see Haaland (1984).

<sup>14</sup> A study of Abu Haraz market in Kordofan Region, quoted by Oesterdiekhoff (1989, p.7) shows that the position of oligopoly trade companies and wholesalers in auction markets is secured by their excessive disposal of storage facilities.

**Table 8: Monthly producer prices in selected markets for major traditional sector crops in 1986 and 1987 (prices Ls/sack for sorghum and millet; Ls/Kantar for groundnuts and sesame)<sup>1</sup>**

Crop/Month	January	April	July	October	November	December
1986						
Sorghum	58	58	35	33	36	36
Millet	69	61	48	45	57	59
Groundnuts	64	52	47	NA	63	63
Sesame	66	77	89	69	70	70
1987						
Sorghum	39	44	53	78	118	122
Millet	57	61	71	93	152	164
Groundnuts	63	NA	NA	NA	59	59
Sesame	72	79	81	87	92	87

<sup>1</sup>:Market selected is El Obeid in Kordofan Region

Sources: Ministry of Agriculture and Natural Resources (1987, 1988).

Also, due to the weak infrastructure and unreliable transport facilities, in traditional areas the cost of transport in proportion to the output amount to nearly twice the cost in areas closer to mechanized and irrigated schemes, where merchants and trading companies are induced to have their own transport means.

On the supply side small farmers prefer to sell directly to the shopkeepers (agents) rather than going to auction markets. They shy at the high transport risk and cost as well as at imminent credit repayment, which would push them into the disadvantageous position to sell immediately after harvest

when prices are low. The pricing negotiations also take place without market information being disseminated to farmers. Most of these farmers have to rely on information provided by a lorry driver passing by or fellow farmer who has visited the urban markets. In contrast to this big merchants use telecommunications and other means to be informed about prices in the region and in the main consumption areas.

All these factors make domination of markets by small groups of traders plausible and deprive farmers from easy entry to the market, which would make it more competitive. The Rainfed Strategy Study (Government of Sudan 1986a,b) shows that the net margin retained by traders constitutes the higher share of the marketing margins and also the highest share of the consumer price. In case of sorghum, on average, the net margin is about 58% of the gross margin, and it also accounts for about 12% of the consumer price (while marketing costs account for 8,6%)<sup>15</sup>.

Such product marketing functions have led to what could be described as a process of oligopoly/oligopsony on the demand side and on atomistic market structure on the supply side, causing exploitation/ surplus appropriation<sup>16</sup>.

Real return to labor from crop production in the traditional sector is also reduced considerably by the special system of credit prevailing, which adversely influences farmers when allocating their labor to agriculture even if producer prices are increased.

Until harvest traditional farmers need credit to pay mostly for drinking water and consumer goods (salt, sugar, clothing, oil, shoes etc.) and for some inputs like sacks (although minimized by recycling) and seeds (particularily after a bad harvest when no seeds are retained). Cash requirements are estimated to be 60% of the total requirements<sup>17</sup>. The only spe-

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<sup>15</sup> Government of Sudan (1986b, p. 44).

<sup>16</sup> This description is taken from Oesterdiekhoff (1983, pp. 146).

<sup>17</sup> See Government of Sudan (1986a, p. 40); it is assumed that a good part of

cialized credit bank is the Agricultural Bank of Sudan (ABS), established 1959 and operating through 32 branches. The ABS Act stresses that preference is to be given to small and medium loans to farmers and cooperatives; however, its operations mainly focus on the mechanized sub-sector. It is estimated that only 3% - 9% of its operations go to small producers. Commercial banks extend facilities only to the modern sector and to large-scale mechanization. The exclusion of traditional farmers from institutional credit has led to excessive demand for money by way of informal credit, known in Sudan as the 'sheil' system. This system is defined as a 'unique form of credit which is an integral part of the marketing system. It is a social adjustment to avoid levying a direct interest rate which is prohibited by Islam'<sup>18</sup>. There are several types of 'sheil'; the most common one is practised in such a way that local merchants (or money lenders) advance credit in cash (and/or kind) to small farmers to cover their consumption needs and production requirements during the season and the latter pledge their unharvested crops at a price pre-determined below the harvest value<sup>19</sup>.

Although no evidence exists regarding the overall position of the 'sheil' in traditional farming, several studies point at its widespread use, indicating that it covers over 60% of the farmers<sup>20</sup>. The interest rates charged by this system seem to be exploitative. Humeida (1986) showed rates between 60% - 200% in Shendi area and 105% - 280% in Gezira; Oesterdiekhoff (1983) stated that traders/money lenders reap 300% - 400% p.a. by way of the 'sheil'; ILO (1987) confirmed that the system leaves small producers with as little as one sixth of the

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labor is provided by the producers' families.

<sup>18</sup> see Humeida (1986, p. 343).

<sup>19</sup> For detailed description of this system and its impacts see *ibid* (pp.343-346).

<sup>20</sup> The Rainfed Strategy Study - Government of Sudan (1986a, p. 50) - states that the majority of farmers are burdened by 'sheil'. World Bank (1983, pp.56) quotes the survey of Humeida showing that 64% of his sample were involved in the 'sheil'.

value of their crops at final market prices. The World Bank (1983) figures also show that in 1983 the 'sheil' prices were £S 5/sack for groundnuts and £S 10/sack for sorghum three months before harvesting and at harvest the prices were £S 10/sack and £S 18/sack for groundnuts and sorghum respectively with an implicit interest of 200% for groundnuts and 177% for sorghum<sup>21</sup>.

True, high risk of default, high administrative cost and capital scarcity in rural areas, all might push up the cost for the interest rate in traditional areas through the 'sheil'. However, the monopoly power of this system should be viewed within a framework of a more complex market linking both borrowers and lenders in consumption, product markets and social relations so that any neat distinction of credit as an independent market with a clearing rate would be misleading<sup>22</sup>. It is crucial to remember that the role of traders or agents in marketing is not separated from their role as money lenders in the traditional sub-sector. The 'sheil' is also well adapted to the needs of small farmers - the credit is flexible in terms of urgency, coverage of consumption needs, reliability, continuity and willingness to do without security. In case of bad harvest the payment is postponed, resulting in more debt and renewed credit, leaving the farmer unable to catch up and ending in chronic indebtedness. Farmers are feeling that the crop does not belong to them through this system, and that they are obliged to allocate their labor to survive rather than to maximize output.

By and large, in such markets price incentives alone are obviously bound not to produce the expected theoretical

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<sup>21</sup> See Humeida (1986, pp. 343), Oesterdiekhoff (1983, pp.145), ILO (1987, pp. 58) and World Bank (1983, pp.56).

<sup>22</sup> Some authors argue that the high interest rate of the informal credit represents the clearing rate given, and is not due to market failure, since risks, opportunity cost of capital and administrative costs are high. See Stiglitz (1987, pp. 49) and also Von Pischke et al. (eds) 1983. Lipton (1981) gives a critique to the issues stated above showing that economic theory alone is not capable of interpreting the informal credit markets.

results of increased output.

#### 6. Lack of Commitment to Traditional Agriculture

It is evident that the pricing policies do not have a chance of success in traditional agriculture due to structural problems persisting in the sector. Public investments are required for their removal. In some of the World Bank's official documents for Sudan, the problems were stated<sup>23</sup>, but nevertheless the Bank's investments profile for Sudan seems to take another direction, as can be seen from Table 9 below:

Table 9: IDA lending to Sudan (Number of Projects 1975-1987)

<u>Projects in Irrigated Areas</u>		<u>Projects in Rainfed Areas</u>	
Irrigation	9	Mechanized Farming	3
Smallholder development	5	Research	1
Rehabilitation	2	Livestock	2
Research and Extensien	1	Traditional Sector development	3
	<u>17</u>		<u>9</u>

Source: Ministry of Finance and Economic Planning (1988)

The bias in investments is further exacerbated by the

<sup>23</sup> World Bank (1983, pp. 55-57) refers very clearly to rigidities in the traditional agriculture, and indicates the need for action to remove them.



inappropriate project design for traditional sector development, scanty as they are. A project appraisal report by the World Bank for South Kassala traditional agriculture states at the beginning of the document that 'smallholders have to rely on the informal credit system 'sheil' which not only is very costly but requires payment immediately after harvest when market prices are lowest'. Yet, in the same project (US\$ 34.4 million) neither credit nor marketing are included as components, and it is not even mentioned how to tackle this problem. At the same time, the project management received 13 % of the project cost for computers, vehicles, buildings, furniture etc.).<sup>24</sup> All other Bank projects show that this waste of resources without targeting the real problems faced by small farmers is no exception. Such projects could best be described with the words of a World Bank staff member, who stated:

" A mosaic of expensive rural development projects - which tends to disappear when donor's finance disappears".<sup>25</sup>

The role of the Government on the other hand should not be looked over. It has much room to influence the project designs and investment profiles to remove apparent rigidities in the traditional sector. Nevertheless its role has been passive, irrespective of the regime in power (military or democratic). This could only be related to the political structure and the powers in the country. Most of the traditional farming areas are in the Western Sudan, dominated by the 'Ansar' who historically belong to the 'Umma' political party. The leadership of this party has generated its support in these areas from religious affiliation.

During the military rule (1969 - 1985) the factors that worked together to deprive traditional farming areas from appropriate attention were mainly:

a) The areas were considered by the regime as an opposition

<sup>24</sup> See World Bank (1988)

<sup>25</sup> Cleaver (1988, pp. 83)

pocket which fuelled the resistance against the regime in power.

b) The military regime had mainly relied on the support of the military, the Sudanese Socialist Union (the single recognized party dominated by merchants and intellectuals) and foreign assistance (Egypt's military aid, U.S. and international institutions' funding, and Arab countries' petroleum and other assistance). Therefore, attention was directed to elites.

c) Farmers were not organized to pursue their own interests as a group.

One would expect that this negligence should have changed when the new democratic government came to power in 1986 since it was dominated by the 'Umma' party and also a major share of its rates were derived from Western Sudan. However, the picture has not changed much. This is mainly attributable to the following:

a) The subordination of the Western Sudanese traditional farmers to the 'Umma' party is wholly on a religious basis. This alliance motivated the followers to forego their personal interests if they contradicted the party leadership interests. The party leadership interest, knowing this unconditionally guaranteed support, was then directed to win battles in areas and groups either of marginal or potential support. The latter, however, do not base their support on a religious basis.

b) There is a conflict of interest also between the merchants, who constitute a core decision making group in the 'Umma' party, and the traditional farmers.<sup>26</sup> This group owes its prosperity the policies followed by the government, and in turn it actively finances the party operations (subsidies to the party newspaper, election campaigns etc.).

Hence, it is evident that traditional farmers are not a

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<sup>26</sup> Ahmed (1986, p. 14) quotes a sample study by Mahmoud (1984) with 100 merchants out of which 38 belong to the Umma party.

pressure group that is able to pursue its own interest neither in a democratic government (as being exploited) nor during military rule (as being ignored).

### 7. Policy Recommendations

Government and donors should abandon the current ad-hoc approach of economically and spatially isolated "white elephants". An approach which gives priority to enhance the output of the traditional agricultural sector can best be tackled within a comprehensive package of medium-term nature. This package obviously has to fit into a wider long-term programme, which should include the creating of more dynamic linkages between agriculture in general and the rest of the economy, diffusion of technology etc., which is beyond the scope of this paper.

The medium-term package should comprise both price incentives and more investments, which should be specially directed to creating a competitive market in traditional agriculture. The identification, design, and implementation of investments is to be carried out by a serious participation of traditional farmers.

Basic consideration in this medium-term package is to be given to the following:

- The government should stop existing pressure to land in traditional areas arising from mechanized farming expansion. A land tenure reform in the traditional sector could be crucial with respect to better production practices, security and collateral for credit. Land tenure currently recognized under customary traditions is to be legalized and registered to serve the above mentioned purposes.
- A special credit institution is to be created to serve rural

areas. Appropriate design of the functions of this institution and its adaptability to traditional farming is deemed necessary. This adaptability includes issues like: credit needs for consumption, priority for credit to establish small business and cooperatives (in transport, storage etc.), flexibility in loan repayment in case of crop failure (due to low rainfall, insects, etc.)

- Besides the current governmental programme of building a highways network across traditional areas, there is a need for implementing a feeder roads network linking traditional areas to major markets.

-Other considerations of the package would also include low-cost storage facilities at the village level and a system of disseminating market information.

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