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## I. Introduction

Sudan's industrial sector is in a deep crisis. Very recent informations suggest that this sector needs monthly at least 20 million dollars to get the minimum input needs for sustaining a capacity utilisation of not more than 25 per cent (New African, June 1987, p. 39). Because of the unsolved issues between the Government of Sudan and the IMF the foreign exchange situation of the country is extremely unsatisfactory. This situation is complicated by the fact that the Sudanese Workers Abroad (SWA) in oil-rich Arab countries are more and more reluctant to remit their hard currency via official channels. But the roots of the problems of Sudan's industry are much deeper: there are causes of crisis which are internal and which are external to this sector.

Factors internal to the sector are manifold: the sector is extremely import-dependent because of the technologies chosen in the sixties and especially the seventies; the structural change of industry since Independence (1956) has favoured more and more those branches with a higher import-content (especially the production of luxury consumer goods); the consumer goods industries are heavily biased towards the provision of luxury goods (relative to the income levels); there is only a rudimentary input industry in the country; the insignificant export industries (producing edible oil and yarn) are under pressure; the system of industrial policy developed since Independence has favoured large-scale and capital-intensive industrial ventures at the expense of small- and medium-scale firms; the role of industrialists relative to the position of actors in the commercial sector (traders and merchants) has always been weak in the Sudan. In addition to this, the public sector of industry has failed to realise even modest targets (provision of goods as projected and realisation of development objectives, e.g. equity, regional balance, local resoures use); inconsistent government policies towards industry have affected both segments of industry-private and public (Wohlmuth 1986).

Important factors and constraints which have an impact are to be found outside of the industrial sector. Out of the labour force of

6.2 million people 1/10 is employed in the formal sector, 1/10 in the informal sector, 1/10 on irrigated tenancies and 70 per cent are employed in rainfed agriculture as smallholders, pastoralists and landless labourers (see ILO 1986); this employment profile highlights the questions of markets and market growth for industry development. The disastrous agricultural policies in the Sudan have affected first of all the traditional sector where 70 per cent of the labour force have their employment (although 2 m people are migrating seasonally). The crisis of the Gezira Scheme and of other irrigated projects has affected the income potential of another 10 per cent of income earners; the real income decline of the government employees (by more than 50 per cent since the 1970s) has further reduced the market for industrial products (out of 600,000 people working in the formal sector approximately 500,000 belong to the public sector and the parastatals). This leaves only the informal sector as a dynamic and prospering sector - but at the expense of the formal industrial sector. As recent studies on the structure of the informal sector in Sudan show, comparatively high incomes, relatively high educational and training standards as well as access to unofficially transferred foreign exchange from SWA give this sector a good chance to compete with the formal industrial sector which is starved of funds (see ILO 1986). In this context the (formal and informal) small industry sector needs investigation in order to understand the perspectives of this sector and to answer the question of how far this sector can contribute to a revitalization of the whole industrial sector. Because of the assumed developmental advantages of the small industries (low import-dependency, high employment generation, use of more appropriate technologies, generation of local skills, supply of needed goods and services for local and rural markets, stronger linkages to the agricultural sector) it is of interest how far this subsector can contribute to the solution of Sudan's far-reaching structural adjustment problems (Hansohm/Wohlmuth 1985[1]).

In Part II we will give a historical and institutional policy review as related to small industry development in Sudan so as to understand the policy constraints which have affected this sector. In Part III we will discuss the performance and the characteristics of rural and urban small industries in Sudan. In Part IV we will consider the policies for small industry development and review the appropriateness of some institutional approaches towards small industry development in Sudan. In the last Part we will present some conclusions.

## II. Small Industry Development In The Context of Sudan's Industrialisation Process

Six distinct periods of Sudan's industrial development may be distinguished:

first, the pre-Independence period until 1956 (with cottage industries and colonial-type processing of exported primary products);

second, the period 1956-1960 (with indirect public intervention and the start of modern manufacturing);

third, the period 1960-1969 (with direct public intervention in industrialisation parallel to private industrial investments);

fourth, the period 1969-1973 (with socialist orientation of government, nationalisation and confiscation of private industries in 1970, but a policy reversal in 1971);

fifth, the period 1973-1977/78 (with huge agro-industrial investments mainly by the public sector);

sixth, the period from 1977/78 up to now (of economic crisis affecting industry more and more).

Sudan's small industry development had been affected adversely by these policies in all these periods, so that it is useful to review the implications of industrial policies in detail. Common to these various periods is the outstanding commitment of all Sudanese governments towards industrialisation. However, objectives, strategies and instruments used have changed considerably over time.

Concerning the <u>first period</u> (pre-Independence), in the early period of colonization, cottage industries were prevailing (Oesterdiekhoff 1984) and some products could even be sold on foreign markets (based on cotton and wood). The steep increase in the demand for raw materials from the side of the British textile industry led to intensified cotton production in Sudan, enforced by the colonial government. The Sennar dam built in 1925 made large-scale cotton cultivation in the Gezira possible; a large-scale export enclave was created (Awad 1973). This led to the first stage of manufacturing as represented by cotton-ginning factories. The expansion of this industry encouraged the development of edible oil industries based on cotton seeds. However, the step towards producing yarns and textiles was not possible before Independence. Colonial interventions and liberal import policies were responsible for this failure of reaching higher stages of raw materials processing. At the same time the colonial import policy had negative consequences on the growth of the cottage industries.

The colonial interventions affected negatively investments in the private industrial sector, especially in the small industry sector. Only oil-seed pressing industries could develop to some extent in the colonial period, obviously because of the widespread oil extraction activity taking place at the household level, so that colonial interventions could not block this development; some export of crude edible oil was even considered as beneficial by the colonial government (see Mahmoud 1984, p. 54-55). This is - besides the "traditional" industries - the only sector of small industries in Sudan which has survived colonial interventions. Important enough, the edible oil industry has remained the only industry in Sudan up to now which could export more ore less on a regular basis parts of its production (Affan 1985, 68). Colonial-type policies towards small industries have continued also after Independence.

Some import substitution took place during World War II. These industries were induced by supply bottlenecks, but the industry could not survive after the war because of the then reopening import trade. Some smaller-scale industries by non-indigenous Sudanese private investors (in the sphere of confectionaries, vegetable oils, macaroni, soft drinks, soap, perfume and building materials) could however compete successfully with import products. Industry in the pre-independence period was oriented towards final consumption (mainly ISIC 31), with oil pressing, mineral water factories and flour mills covering 61 per cent of the total net output of manufacturing industry in 1955/56 (Oesterdiekhoff 1979, p. 2-3). Only oilcake went back as an input to agriculture, so that the linkages from industry to agriculture were negligible. Neither inter-sectoral nor intra-sectoral linkages were of any importance. However, already in the 1940s to some degree a displacement of traditional industries/cottage industries/crafts took place because of more or less identical markets for the products of the modern and the traditional industrial sectors.

The colonial production in Sudan, e.g. of cotton in the Gezira, has determined to a large extent the prevailing regional concentration of industry towards the Three Towns (Khartoum, Khartoum-North and Omdurman) and the Central Region. Sixty-two per cent of total industrial value added, 62 per cent of the industrial labour force and 44 per cent of the manufacturing industrial establishments are concentrated now in Khartoum Province (Fadlalla 1986, p. 17); if we include the establishments in the Central Region, this means that the overwhelming share of industries is concentrated in the Khartoum/Gezira areas. This situation has not changed up to now, despite various approaches to develop industries in other regions and to accelerate growth in other provinces. The promotion of import substituting-industries in these areas was not accompanied by steps to promote rural industries and crafts. The Industrial Sector Survey 1981/82 reveals the fact of basically unchanged structures.

The <u>second period</u> (1956-1960) may be characterised as a period of indirect public intervention. Private investment was considered as the main vehicle of industrialisation. The idea was to move quickly from import substitution of consumer goods to import substitution of intermediate and capital goods. Even exports to neighbouring countries were contemplated at that time (Affan 1985, p. 13). Not only foreign exchange savings were expected from this industrialisation policy, but also a diversification out of the dependence on a few primary export products which have shown a high degree of price and volume fluctuations. The "Approved Enterprises (Concessions) Act, 1956" was an important step to promote private investments in Sudan, but it did by its implicit policy prescriptions discriminate against small industries. In this period, a clear-cut division of economic spheres was existent: the state invested into large-scale agricultural and infrastructural projects, whereas the private sector concentrated on industry and housing, mainly in the Khartoum/Gezira regions. However, some structural change of industry towards textiles, shoes, paper products and chemical products took place in this period. The second period may therefore be considered as the starting point of modern manufacturing in Sudan. A partial transformation of the colonial industrial structure based on a low level of processing was therefore taking place. However, the limited market size was already a constraint on further steps in industrialisation, leading to relatively small production units, excess capacities and concentration within industrial sectors. The neglect of rural development precluded any small industry development via internal growth of established units; in urban areas no support was given to small-industries and crafts.

The <u>third period</u> (1960-69) is crucial to Sudan's industrialisation. Direct public intervention emerged. Influential was the "Ten Years Plan of Economic and Social Development of the Sudan 1961/62-1970/71". At the end of the plan period, Sudan was expected to have transformed its industrial structure towards the production of intermediate and capital goods, as well as exporting manufactures. A considerable share of planned industrial investment was allocated to the public sector, although private (including foreign) capital was expected to remain the leading sector. The creation of the Industrial Bank of Sudan in 1961 was an attempt to give additional assistance to private industries. Up to now the Industrial Bank of Sudan is discriminating in its lending policy against small industries and crafts.

The nine public factories built up in the spheres of agro-industries did not affect the position of the private sector as the leading one, but led to some deconcentration of the industrial structure because the factories were built near the agricultural resources base. Eventually, this type of deconcentration turned out to be a complete failure because of the lack of any coordination between industrial planning and agricultural development, thus leading even to raw material shortages. The basic aim of public sector investments into agro-industries -saving foreign exchange, e.g. on sugar - was not realised. Since these times, the role of the public industries in Sudan - incurring heavy losses, working with substantial excess capacities and high units costs - is questioned again and again; it is an important point on the agenda of discussions with donors and IMF/World Bank missions to Sudan. However, the basic constraints to a broader industrial development (small market size, neglect of agricultural development and of rural industries) have not been removed in this period by general and industrial policy measures. The low performance of industrial policies led to "The Organisation and Promotion of Industrial Investment Act, 1967", stressing the role of the private entrepreneur (Affan 1985, p. 20), but not improving the position of small and rural industries at all. The whole system of concessions in industry has further worked against the smaller ventures.

Also in the third period a distinct division of economic spheres has existed: the public sector concentrated on local raw materials-based modern production, whereas the private sector moved more and more into sectors producing non-essential goods; the limits of the import-substituting industrialisation were quite obvious already in the 1960s, as a result of the diversification of the private industry in the direction of small and exclusive markets; this tendency led to increasing demands for incentives and protection from competing imports, thereby distorting more and more the structure of incentives and of factor prices. Increasing state assistance kept private investors in these industries; on the other hand the share of public assistance for agriculture and related industries was insignificant.

In the <u>fourth period</u> (1969-1973), following Numeiri's May 1969 Revolution, nationalisation and confiscation of private industries took place (including foreign capital), but as soon as 1971 a policy reversal occured (see on this period Hansohm/Wohlmuth 1985[2]). The long-term consequences of these policies for Sudan's industrial development were important. In order to regain some credibility in the circles of foreign investors and banks even more favourable investment concessions had to be granted. A further distortion of the structure of protection and incentives then took place. An expression of this policy reversal was "The Development and Encouragement of Industrial Investment Act, 1972".

The <u>fifth period</u> (1973-1977/78) marks the intensified direct public intervention in industry under the label of the so-called Breadbasket Strategy. The intention was to supply the Arab World with food, and to expand modern agriculture and agro-industries rapidly for this purpose. Various forms of capital participation in industry from the side of the state were used and institutional innovations (like the establishment of the Sudan Development Corporation as a catalyst for foreign, Arab and national private and public capital) took place (see Wohlmuth 1979, 1983). The government moved even further towards the support of capital-intensive and import-intensive projects (mainly in sugar and textile industries). The sharp increase of the capital-labour ratio in this period reflects not only the bias towards capital-intensive technologies, but also the increasing extent of excess capacities (Affan 1985, p. 164). This attitude of the Government got its expression in the 1 billion dollar Kenana sugar project (the story of Kenana it itself a lesson in industrialisation failures in Africa, see Wohlmuth 1983). It is obvious that the large-scale bias of Sudan's industrialisation in this period has drained off all available resources from alternative uses; more than that, the distortion of structures and prices as well as the creation of macroeconomic imbalances have resulted in Sudan's most severe economic crisis since Independence.

The <u>sixth period</u> (since 1977/78) is also a period of industrial decline. The great number of public sector investment projects (most of them delayed by years) led to overspending, pressure on infrastructure and human skills. Public investments rose by nearly 50 per cent in real terms between 1972/73 and 1973/74, and doubled in real terms by the end of the next year. Large foreign capital inflows that financed this programme inflated aggregate demand; demand pressures, increasing inflation and a worsening balance of payments with first signs already in 1976 were the result (World Bank 1985, 2). On the surface, this explanation of the crisis is convincing, but more important for an understanding of the real causes of the crisis is the observation that there was no consistent agricultural development strategy beyond the irrigated agricultural subsector and no industrial development planning to the effect of maximising linkages with other sectors (Wohlmuth/Hansohm 1984; Oesterdiekhoff 1980, 1983). Beyond this, there was not any serious attempt to design a governmental redistribution policy (Mirghani 1980) in order to create the preconditions for a "wage goods" supply strategy, (see De Janvry 1983), aiming at expanding domestic markets. The lack of any changes in Sudan's production system and in the income distribution system both resulted in a stagnating industrial sector.

The fact that since 1977/78 all the major branches of manufacturing industry are on the decline (UNIDO 1985, p. 15) may therefore not only be attributed to austerity policies (depressing the demand for goods and the supply of imported inputs), but is basically the result of the inappropriateness of industrial policies to remove the basic constraint: market size. Neither external markets (supplying world markets and African regional markets), nor internal markets (based on final demand, inter-sectoral and intra-sectoral intermediate demand) were created to a sufficient extent. Sudan's rudimentary intermediate goods industry had been affected since 1977/78 more severely than food and other manufacturing branches, so that a further erosion of industrial linkages took place. Despite the heavy agro-industrial investments in the 1970s, there is virtually no agricultural machinery industry in the country to support productivity increases in agriculture (see Bedri 1979). In this context small industries, service centers and workshops could contribute in rural and urban areas to productivity increases.

These six periods show the increasing role of the public sector, the increasing limits to import substitution and the increasing level of "state assistance" which has been necessary to motivate industrial capitalists to stay in the sector. Therefore, a new approach to industrialization is urgently required. Up to now the whole framework of industrial policy in Sudan is not favourable for the internal growth of small enterprises; their role in production is limited relative to their role in repair services and distribution.

## III. Performance and characteristics of small industries in Sudan

The most common definition of small industries in Sudan (Department of Statistics) includes enterprises with less than 25 employees. The statistical records concerning small industries are very deficient. The statistics include only a fraction of these enterprises, especially of those in rural areas - let alone part-time non-farm activities. This is partly due to the fact that informal enterprises, who constitute a large part of small industries, are not registered by definition. Since the formal small industries are concentrated in the Three Towns, the statistics are biased towards that region.

The limited coverage of industries outside of the urban area of the Three Towns by the statistics can be recognized by a look at the regional distribution of the enterprises in the Ministry of Industry's industrial survey (1981/82):

Table 1: Regional Distribution of Small Industries*

| Region | No. of Units | % Share |
|---|---|---|
| Khartoum | 878 | 45.7 |
| Central | 529 | 27.5 |
| Kordofan | 152 | 7.9 |
| Darfur | 63 | 3.3 |
| Eastern | 185 | 9.6 |
| Northern | 110 | 5.7 |
| Southern | 5 | 0.2 |
| Total | 1,922 | 100 |

*Enterprises with less than 25 employees, excluding those engaged in bakery and grain milling.
Source: Industry Survey, from: Sen 1985, 31

By category of activity the small industry enterprises (exclusive of bakeries and grain mills) are distributed as follows:

Table 2: Distribution of Small Industry Enterprises on Categories of Activity (1981/82)

| Classification | Number | % | Gross Output LS 000 | % | Employment | % |
|---|---|---|---|---|---|---|
| Food, Tobacco & Beverages | 686 | 35.0 | 190,133 | 66.4 | 6,105 | 31.9 |
| Textile, Weaving Apparel&Leather | 77 | 3.9 | 11,864 | 4.1 | 984 | 5.1 |
| Wood & Wood Products, Furniture | 173 | 8.9 | 8,369 | 2.9 | 1,467 | 7.7 |
| Paper, Paper Products, Printing | 77 | 3.9 | 3,244 | 1.1 | 769 | 4.2 |
| Chemicals & Chemical Products | 69 | 3.4 | 30,376 | 10.6 | 1,232 | 6.4 |
| Other Non-Metallic Products | 68 | 3.4 | 7,909 | 2.8 | 2,059 | 10.7 |
| Basic Metal Industries | 4 | 0.02 | 159 | 0.05 | 64 | 0.3 |
| Fabricated Metal Products & Machinery | 820 | 41.5 | 34,223 | 12.0 | 6,451 | 33.7 |
| Total | 1,974* | 100 | 286,277 | 100 | 19,185 | 100 |

* Difference to the number of enterprises in Table 1 due to "errors and omissions".

Source: Industrial Survey 1981/82, from: Sen 1985, 30

Concerning the gross output, the category of Food, Tobacco & Beverages is the most important; it is second in number of enterprises and employment. Its activities are concentrated on oil milling, fruit juice, local sweets, noodles and macaroni. The category "Fabricated Metal Products & Machinery", second in gross output, concentrates on auto-servicing and repair workshops and sheet metal workshops (furniture, doors, windows etc.). In the third category (Chemicals & Chemical Products) indigenous soap and perfumes are prominent.

Small industries as a whole play a major and positive role in the secondary sector. They account for 95 per cent of all enterprises, 27.4 per cent of the employees and 34.3 per cent of the gross output. The UNIDO Industrial Survey (1985) estimates that 30 per cent of small-scale industries are located in Khartoum province (in contrast to 60 per cent of large industries). Compared to large industries, small industries produce 10 times more per unit of investment, need half of the investment to create a job and their value added per worker is about 3 times higher(Sen 1985, 28). Large industries appear to be heavily capital-intensive and grossly unproductive.

In spite of being outdated and confined to the Northern regions, the Handicraft Industries Survey of the Department of Statistics is a valuable source of data on a part of the small industries. The survey defined a handicraft unit as a unit engaged in the production of goods and services without using modern equipments. It identified 19022 handicraft units and covered a sample of 3966 out of these. The total number is distributed regionally as follows:

Table 3: Regional Distribution of Handicraft Units (1970/71)

| Region | No.of Units | % of Total | No.of Workers | % of Total | Value of Production LS 000 | % of Total |
|---|---|---|---|---|---|---|
| Khartoum | 2,736 | 14.33 | 9,084 | 24.93 | 8,998 | 41.45 |
| Blue Nile | 4,928 | 25.90 | 8,948 | 24.55 | 5,290 | 24.37 |
| Kassala | 2,347 | 12.34 | 4,126 | 11.32 | 2,204 | 10.15 |
| Kordofan | 5,980 | 31.44 | 8,388 | 23.02 | 2,524 | 11.63 |
| Northern | 1,206 | 6.35 | 2,945 | 8.11 | 1,703 | 7.84 |
| Darfur | 1,825 | 9.64 | 2,941 | 8.07 | 990 | 4.56 |
| All Nortern Regions | 19,022 | 100 | 36,441 | 100 | 21,709 | 100 |

Source: Handicraft Industries Survey 1970/71 (Dept. of Statistics 1974)

Comparing the number of enterprises with the figures of the Industrial Survey, one can see that the Handicraft Survey gives more consideration to the rural industries: 85.7 per cent of the enterprises are located outside of Khartoum province. The share of Khartoum increases, however, when we look at the number of workers and the value of production. Then the share of the rural areas decreases to 75.07 per cent and 58.55 per cent respectively. Assessing these figures, it has to be considered that the Survey seems to be confined to full-time activities. Part-time craft and industry activities are more common in rural areas. Therefore we have to assume that also the Handicraft Survey is biased towards the urban areas. Besides that, it can be assumed that the Survey was confined to major centres in the rural areas. For that reason, the activities which are more common in small villages are not represented adequately.

The Handicraft Survey divides the crafts into 10 categories (see Table 4):

Table 4: Distribution of Handicraft Units by Branches (1970/71)

| Branch | No. | % of Total | of these: Khartoum | % of Total | No. of Workers | % of Total | Value of Production LS 000 | % of Total |
|---|---|---|---|---|---|---|---|---|
| Food Products | 1,189 | 6.25 | 184 | 6.72 | 6,243 | 17.13 | 8,965 | 41.30 |
| Drinks | 2,792 | 14.68 | 164 | 5.99 | 3,737 | 10.26 | 897 | 4.13 |
| Clothes | 9,308 | 48.93 | 1,532 | 55.99 | 13,096 | 35.94 | 4,053 | 18.67 |
| Furniture | 941 | 4.95 | 88 | 3.22 | 11,946 | 5.34 | 1,337 | 6.16 |
| Leather, Plastic & Tannery Products | 1,232 | 6.48 | 56 | 2.05 | 2,220 | 6.09 | 915 | 4.21 |
| Ornaments & Blacksmith Products | 1,733 | 9.11 | 168 | 6.14 | 3,466 | 8.51 | 2,457 | 11.32 |
| Palm Leaves Products | 670 | 3.52 | 8 | 0.29 | 716 | 1.96 | 53 | 0.25 |
| Pottery | 465 | 2.44 | 180 | 6.58 | 3,669 | 10.07 | 626 | 2.88 |
| Tobacco | 540 | 2.73 | 320 | 11.70 | 716 | 1.96 | 431 | 1.99 |
| Unclassified | 172 | 0.91 | 36 | 1.32 | 632 | 1.74 | 1,975 | 9.10 |
| Total | 19,022 | 100 | 2,736 | 100 | 36,441 | 100 | 21,709 | 100 |

Source: Handicraft Industries Survey 1970/71 (Dept. of Statistics 1974)

Concerning the numbers of enterprises and workers, "clothes" is the most important category, both for Khartoum and the rural areas. Second are the food production categories ("food production" and "drinks"). Concerning the value of production, they rank first. Other important branches are "ornaments and blacksmith products", "furniture" and "leather, plastic and tannery products".

As yet few studies have been done on small scale industrial activities, either of a formal or informal character. Available evidence will be summarized in this part in order to throw some light on characteristics which are of special importance in view of the presumed developmental advantages of the sector (see above). The basis for this are two studies on the Three Towns - Omdurman (own study 1986) and Khartoum North (Curtis 1980) -, an own small field study in Western Sudan (Hansohm 1986) and reports on Darfur (Bakhit/Ibrahim/Rheingans 1986), on two areas in Eastern Sudan (Babiker 1982), on Wad Medani (Anand/Nur 1984, 1985, Bilal 1985) and on Juba (Jenkins 1981).

Most of the production is destined for the <u>final consumption demand</u>. Few branches supply production inputs. Examples are tannery (producing for the leather industry) and blacksmiths/metal workshops as far as they produce agricultural implements and spare parts. Thus the inter-industrial linkages appear to be low. This is a contrast to the experiences of South Asian economies, especially India, where sub-contracting (of large firms to small firms) provided a stimulus to small industries growth.

However, it is assumed that the potential of <u>productive linkages</u> between agriculture and industry would be great if an appropriate policy were implemented. Local blacksmiths have provided a wide variety of agricultural tools, however on a primitive level. The main constraint to increasing the technological level (intermediate technologies) seems to be the limited purchasing power of farmers (cf. Silsoe College 1986). The Jebel Marra Rural Development Project experiments with the introduction of camel-drawn ploughs on small to medium farms, assisted by a credit programme. The ploughs are produced locally and the experience has been encouraging.

Most of the production is directed at the local market, if not for home consumption. Only few items seem to be traded inter-regionally (e.g. shoes from Darfur). Nothing seems to go to export.

Most, both in traditional and modern activities, is produced on order and marketed by the producers at the place of production.

Traditionally, small industries produce predominantly for lower-income groups of the population, compared to large enterprises. However, presently it is not any more possible to attach this label to the sector as a whole. In fact, many of the products or services seem to be consumed throughout all income groups and some are even directed at higher-income groups (e.g. modern carpentry, car repair). This appears to contradict the assumption that small industries are directed at the demand of low income groups and that their development is, therefore, constrained by the deteriorating income distribution. That is, however, not necessarily the case. Because the studies are limited to "successful" entrepreneurs, they do not give a representative view of the sector's development. At the same time, if there is a shift away from inferior goods, this might be interpreted as a sign for increasing development opportunities.

For a large part of the examined enterprises/activities, the demand perspectives are evaluated positively. One reason for this is that there is hardly any competition with large-scale domestic enterprises. This is partly due to the low capacity utilization of large industries and points to possible stimulating effects of the economic crisis on the development of small industries. Similarly, the limited infrastructure in the country acts as a barrier and gives comparative advantages to those industries which are based on local resources.

The incomes of small industrialists differ widely. The incomes of many activities appear to be high in comparison to agriculture and also formal sector incomes. Compared with the last category, incomes increased during the last years. This is partly due to the declining real wage levels. This corresponds with the fact that a surprisingly high number of entrepreneurs (29% in the urban area of Omdurman) had worked formerly in the formal sector, partly even in highly qualified positions.

Altogether, there appears to be a high social mobility. The social origin of the entrepreneurs varies broadly.

Traditionally, artisanal industries were subject to strict social segmentation by sex and in some instance by ethnical group. This was assumed to be an obstacle for the development of small industries. Currently these segmentations seem to begin to break down. Two examples will illustrate this:

1) In Darfur, blacksmithing is traditionally a "despised" trade practised by West Africans. Presently, indigenous people begin to work in this trade.

2) Weaving of mats, baskets and food covers is traditionally done by women. However, it is reported that in some areas men are now engaged.

The characteristic of "reliance on local raw materials" has to be qualified. This is true to a high degree only for traditional rural industries. For all of the modern branches in Darfur (carpentry, metal work, tailoring, mechanical services, electrical workshops), for example, the supply of raw materials and/or equipment appears to be the main constraint. Even the raw material supply of some traditional industries is presently endangered as a result of environmental degradation (supply of wood, wool, leather, palm leaves). On the other hand, some trades are now using waste material (e.g. scrap). The market for raw materials is often dominated by few traders. Shortages are aggravated by them in order to increase profits.

Hardly any of the small industrialists has access to institutionalized credit. Most rely almost exclusively on self-finance. Some trades are dependent on merchants: They borrow money or raw materials at very high interest rates. Lack of capital appears to be a barrier to growth. However, this view is not undisputed (cf. Curtis 1980). In any case, programmes focussing on credit supply run the risk of increasing capital intensity to an inappropriate degree - the ability to work efficiently under the conditions of capital scarcity is one of the strong points of small industries. If increased market demand is not ensured, the result will be a displacement of many entrepreneurs by the few who get credit.

The technological level of many activities is low. Generally, they are labour-intensive and use little capital. To develop small industries, a modernization is necessary (except for artistic crafts). But the appropriate technologies will be intermediate, their introduction has to be carefully prepared and due regard must be given to the conditions under which small industries work.

Possession of licences and tax paying capacity are characteristics of formal enterprises. For industries in rural areas, especially those of a traditional character, they appear to be almost irrelevant. Proposals to "tap the broad tax base provided" by this sector (cf. Anand/Nur 1985, 159; Bilal 1985) have to be met with scepticism at this stage of development. The internal economics of the enterprises has to be fully understood first in order not to restrict or even prevent their evolutionary growth (cf. Hansohm/Wohlmuth 1985[1]).

## IV. Small Industries Development: Policies, Programmes and Institutions

It is obvious that governmental policies on industry, agriculture, wage, trade and tariffs, foreign exchange, money and credit supply, public revenues and expenditures still have negative repercussions on the dynamics of the small industry sector, including the rural crafts sector. One of the 10 targets of the Six Year Plan 1977/78-1982/83 was the "Development of small industries based on local raw materials", and the importance of this subsector was stated again and again, but concrete actions to that effect did not follow. The promotion of large, capital-intensive and highly import-dependent industries at the expense of small ventures led to the structural deficiencies recorded above. Capital-intensive ventures were favoured for example by the overvaluation of the Sudanese Pound and by the orientation of the Industrial Bank of Sudan towards larger establishments. Low interest rates in times of accelerating inflation led to negative real interest rates favouring investors in large ventures. Rural crafts and small industries however have to deal with traditional moneylenders and nowadays also with Islamic banks; both of them charge very high implicit interest rates.

The tariff system created an additional advantage to modern and large-scale industry because of the low tariff rates for capital goods and raw materials and the high effective protection on its output. The foreign exchange allocation system also discriminates heavily against the smaller producer who has virtually no access to foreign exchange, and all types of administrative procedures (licences, regulations, formalities) are a heavy burden on smaller producers (a factor making informal sector production more remunerative because of the absence of such regulations). The license system for imports is promoting the concentration among producers, mainly by excluding new and small ventures.

All these factors give artificial advantages to industrial commodities competing with products of small industries. Tax concessions, concessionery rates for land and inputs, allotment of prime land, financial guarantees and various types of subsidies are other biases towards the large-scale sector. Exemptions from income taxes, import duties and restrictions, exemption from rules of independence and competition of tenders, reduced costs of government services and guaranteed purchase quantities and prices have to be mentioned also as affecting favourably the larger units of industry. All these artificial inducements of the large-scale industrial sector discriminate against small producers directly or indirectly. They are part of a development model which is biased against broad-based market integration and the creation of linkages between agriculture and industry. The market for products of small industry and rural crafts is thereby severely restricted.

A drastic change of the economic environment for small industrial activities by establishing neutrality as regards the incentives to industrial establishments of different size is necessary. There is also a case in point for making Investment Acts positively discriminating towards small industries. At least the impediments for