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DISCUSSION PAPERS

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An Evaluation of the Empirical Studies  
on Handicrafts and Small Scale Industrial  
Activities in Sudan.

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Summary: This literature survey evaluates the empirical studies undertaken so far in the field of handicrafts and small scale industries in Sudan. Despite being limited in number and partial in coverage, these studies are valuable in showing the general features and the problems of handicrafts and small scale industrial activities in Sudan. The outstanding observation is that these heterogenous studies share common views related to the nature, constraints and the growth potential of handicrafts and small scale industries in the country. Even with their different approaches for reform, these studies come to confirm the optimistic view that small scale industries, given appropriate policies, are capable of expanding both vertically and horizontally. Despite the studies are partial in coverage and lacking firm and comprehensive evaluation they lay the basis for more concrete types of work on this important, but neglected, issue. Specially works on the potential role of these enterprises in the structural adjustment of the Sudan is needed.

### (1) Introduction:

Empirical studies on the field of handicrafts and small scale industries in Sudan are limited in number and often partial. This limitation is not confined to the studies by individual researchers or international organizations, but also to the studies conducted by the government concerned departments. Only few studies were undertaken in the past few years. These studies constitute the basis for this evaluation.

Studies cover almost the whole regions of the country, namely North Khartoum (Curtis, 1980), Khartoum North, Khartoum and Umdurman, (Gumma et al, 1987), Western Sudan, (Kordofan and Darfur regions) (Hansohm, 1986), Darfur region (Bakhit et al, 1986, Hansohm, 1989), Eastern Sudan (Babiker, 1982), and Wad Medani town in the central part of the country (Anand/Nur 1984, Bilal 1985, and Gumma et al 1987), and Southern Sudan (Jenkins, 1981). The main objective of this survey is to examine these studies. It ought to have been mentioned that in this survey no distinction is made between handicrafts, small scale industries and informal activities and between rural and urban activities, because we find it very difficult to separate, from these studies, small scale industries and handicrafts from the informal sector. Hence, some overlapping is unavoidable.

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The next section describes the basic informations concerning these studies as well as showing some of the major study-specific findings. The available evidence on the common characteristics constitutes the third section. The fourth section outlines our criticisms of these studies and throws some light on the ignored important issues mainly related to the structural adjustment in Sudan. Finally, our agendas for empirical research on handicrafts and small scale industries in Sudan is outlined.

## (2) Some Basic Informations Concerning the Studies:

Curtis study is a sample of the studies undertaken to investigate the informal sector of urban economies. The study was confined to two areas: Northern Khartoum Industrial area, and Sejana market. By examining the opportunities and constraints, the government policy, and the issue of representation of the small scale industries within the political system, the study aimed to investigate the nature of the informal sector as well as the public policy towards the promotion. The study uses 37 interviews to cover many activities such as small cloth and suitcase factories, metal and wood working, bed making, mechanical and vehicle services, sweet factories, shoe and nylon thread, shoe polish and tea making. The activities are listed in groups according to the dominant mode of production (hand, power and machine). The characteristics shown include (1) the usage of scrap resources despite that some of them rely on imported inputs but it is not the general trend, (2) the provision of vital services to the large scale industries like car boxes, and services such as engine reconditioning, and (3) the specialization on products which can only be done in units, so that they are suitable for this kind of production.

Bilal study deals with the informal sector in Wad Medani town. The results reported are based on a sample of 149 participants representing only 2% of the total population of the sector at the time of the survey. Areas investigated include the structure, composition, and the socio-economic characteristics of Wad Medani informal sector. The author tried to link the role of this sector to the development process not only by the employment side but also by the earning capacity side (i.e its potential contribution to public revenue through fees, rents, and profit tax). This kind of investigation is derived from his primary finding of a high income generated by this sector. In contrast to other regions of the country, Bilal reached an intuitive conclusion that the structure of informal sector in Wad Madani town is mainly dominated by services (mainly transport). According to Bilal transport constitutes 45% of the total establishments surveyed, services and commerce 47% and manufacture and repairs only 8% (Bilal, 1985, p. 11).

Gumma et al study small scale industries in Wad Medani and the three towns (Khartoum, Umdurman and Khartoum North). Among the industries undertaken for study is food beverages and tobacco,

textile, tanneries and clothes. They use 81 questionnaire and some interviews, to get general informations about educational standard, reasons for investment in the concerned activity, management, ownership, financing, production and marketing and the problems and constraints. The sample was randomly selected. Using informations from the Industrial Survey of 1981/82, the study identifies the geographical distribution of the small scale industries, and their contribution to the industrial sector and the small scale industries in the country. The study elaborates on the issue of financing small scale industries. They observed that the role of commercial banks towards financing small scale industries in the country has not changed. Still the overwhelming finance goes to the internal and foreign trade. Only 1% of credit is directed towards small scale industries. They blame the credit ceiling policy of the Bank of Sudan which constitutes the main reason behind the commercial banks' negative attitude towards financing small scale industries. They maintained that the Industrial Bank of Sudan is constrained by capital, and they appraised the role of the Faisal Islamic Bank and the co-operatives in financing the small scale industries in the country.

Hansohm study (1986) was undertaken by the Mission for the rehabilitation programme of Kordofan and Darfur regions. It is a 16 days field visit to selected handicrafts producers in Elfashir, Nyala, Zalingei (Darfur region), Elobeid, and Kaduglei (Kordofan Region). Activities surveyed are both modern (carpentry, welding/blacksmithing, mechanics and electricity), and traditional (tanneries, leather work, weaving of mats baskets and food covers, agricultural implements, spinning and weaving of wool, and bee keeping). The survey covers only the basic informations such as the number, types of products, size of the workshops, organizations inputs, the demand perspectives and the main constraints. The informations are of a primary character "because they are based on small number of interviews and site visits", (Hansohm, 1986, p. 251). The survey strongly argued for the promotion of these activities and emphasized the suitability of the region. More specifically the report pointed to the need to promote leather and related handicrafts in the areas of Buram, Garsila and Edd El Ganam in Darfur. The reasons for the choice, apart from the need to make these areas as a target for rehabilitation, is related to the predominance of livestock, the large number of population and the existence of border markets like Umm Dafog, and Umm Dukhn (see Hansohm 1986).

In his more recent study Hansohm (1989) provided a detailed survey of small scale industries in Nyala (Darfur region). It is one year comprehensive survey in two industrial areas and the major markets in the city. The survey identified 36 kinds of small scale industries and separately discusses their characteristics, potentials and constraints. Depending on his own relatively comprehensive industrial survey, Hansohm found a very high concentration of small industries in the non-food production, mainly carpentry and metal work (and to some extent blacksmithing,

leather work, grain mill and bakery). In sum the study, using a detailed evaluation, confirmed almost all of the characteristics of small scale industries found by other studies (see the next section).

In their study of the small scale industries in Darfur, Bakhit et al identified the economic, social and technical preconditions for the most important small scale industries in the region as a basis of development of these activities. They choose mainly labour intensive activities namely: leather and apparel industries in Nyala and El fasher, carpet weaving in Mellit and El Fasher, straw work in Manawashi and Marshing, and carpentry in El Fasher. The method of investigation is a questionnaire, and the study meant only to initiate further research.

Babiker attempts to evaluate the socio-economic contribution made by traditional industries in the riverain area of Mahmiya-Damar and the nomadic area of El Subbagh in Butana area, eastern Sudan. Using direct interview, a complete survey and a random sample house survey, the study showed important characteristics concerning production, distribution and labour structure and the problems faced by these small scale industries. The study categorized seven types of industries widely distributed in the area namely: food and beverages, textile and weaving apparel, leather industries, manufacture of products from dom-palm leaves, wood industries, quarrying and manufacture of non-metallic minerals products, blacksmithing and manufacture of fabricated metal products. The most important finding of the study is related to the difference between the riverain and nomadic areas. The wide range, the larger volume of production and market-oriented characteristic of the riverain production, is related to the relative availability of railway transport and raw materials and a short distance to the town markets and urban centers. The presence of craftsmen among nomadic groups is not strong because of the mobility constraints which dictate a minimum of articles to be carried in each movement. Another distinction between the two areas is that while the riverian area establishes an independent unit outside the home as a major occupation to the males, the nomadic group mostly go for home industries, and produce for home consumption. Some items like woolen and dom-palm leaves' mats, butter oil and water skins are sold in the local markets.

The main objective of Jenkins' study is to describe the nature and the characteristics of the informal sector in Juba town with the emphasis on konyo-Konyo market (the largest informal sector market in Juba town- south Sudan-). Using the ILO informal sector concept to include traditional small scale industries, services and trade, the study provides a large number of basic socio-economic data concerning the region and the informal sector. Data base is composed of derivative data such as 1973 census and the archives; empirical data: the field work and the Population and Manpower Survey of the region. 207 interviews were carried out covering 22 activities found in Konyo-Konyo market. The overall sample covered

13-15% of the total working population engaged. The very outstanding feature of the informal sector found in Juba, in contrast to the other regions of the country, is a large percentage of northerners who are actively engaged in most informal sector's activities (trading in specific). Moreover, they are on the top end of income spectrum. In contrast to the other regions of the country, Jenkins found that the informal sector in Juba is a recent phenomenon. His analysis of the employment background of the workers revealed that most of the workers have subsistence agricultural background and two third of their fathers were subsistence farmers. Despite its recent trend in the region, the informal sector activities are increasing through time. For example, between 20% and 25% of the economically active population (outside subsistence agriculture) were currently involved in the informal sector activities in the whole region (Jenkins, 1981, p. 179). The study also gives some reasons for the development of the informal sector in Juba; among them is the isolation of the region and the problem of transportation. In addition to the existence of a large number of uneducated and poorly educated people who cannot find jobs in the formal sector (educational data show that about 56% in the market are illiterate as compared to the town's workers figure of less than 35% (see Jenkins, 1981). It ought to have been mentioned that Juba regional economy, in contrast to the other regions' economy, is lagging behind with a very weak productive structure based on subsistence agriculture. The region is severely hindered by infrastructural problems and suffering from an internal civil war.

Anand/Nur study of small scale enterprises in Wad Medani town aimed at looking at the various aspects of small scale industries as well as compiling the basic data such as location, ownership, management, education, age and origin of owners, volume of investment, inputs used and factors employed, output, produced income and profit generated, facilities obtained from the government and the plans for expansion. The survey is carried out through interviews. The total number of enterprises surveyed is 1375 using a total number of 1113 interviews, mainly in the field of consumer goods and services including a large number of retailers and wholesalers. The important findings are those first, (despite the endogenous factors inhibiting the growth of small scale activities), about 85% of the enterprises surveyed have already planned for their future growth and expansion. Secondly, the distributional side indicates a severe bias towards intermediaries. About 81% of the enterprises cater for consumer goods, more with their distribution rather than production. The severe shortages of consumer goods in the country, explains why there is no demand side constraints to the expansion of this sector.

### (3) Major Characteristics of Handicrafts and Small Scale Industries In Sudan:

Studies on small scale producers in Sudan are not broadly based to enable firm conclusions to be drawn. Despite this limitation, some features can be observed.

The structure of handicrafts and small scale industries in Sudan, which can be deduced from these studies is heterogenous; consisting of many dispersed activities and sub-activities which cannot be grouped together. Small scale activities which can be seen from these studies are composed of two sub-divisions: formal and informal. The former is organized in big centers and within the Sudanese Craftsmen and Small Enterprises Union (see for example Hansohm 1986). Studies implicitly reported that there is a high density of small scale activities in rural towns as compared to dispersed rural areas. In contrast to other regions, Darfur and Kordofan regions, consist of a more varied distribution of activities despite that the total number of small scale industries in these regions are lagging behind other regions in the country. (see table 1). The regional specialization is very marked and well recognized in the literature. For example trade, fishing, forestry and hunting activities (informal sector activities) are dominant in the south, textile and weaving in Northern region, wholesale, retail and other services in the central region and tanning and leather articles (rug, carpet weaving) in Darfur region. Despite these specializations, blacksmithing does not show any regional concentration. This is mainly related to agricultural development of the whole country and the linkages between blacksmithing and agriculture. This regional specialization according to Bakhit et al. (1986, p. 16) arise from differing needs, the availability and adequacy of raw materials, and the environmental advantages.

The overwhelming bulk of products made in small scale industries are simple consumer goods and services which primarily cater for internal consumption demand. Although some activities produce items that are traded inter-regionally (shoes from Darfur), production is largely reported to be produced by order and directed towards local markets and home consumption, (see for example, Bakhit et al 1986, Jenkins 1981 and Hansohm 1989). About 80% of the enterprises surveyed in Wad Medani town of the central part of Sudan, cater for consumer goods (Anand/Nur, 1984). The production is increasingly directed towards higher income groups and the demand perspectives are huge. The production linkages with other segments of the economy appear to be small at the present time (see for example Hansohm, 1989). A few activities like tannery, blacksmithing and metal work supply agricultural inputs and small parts. Despite this low intermediate consumption, Studies revealed that the potential for production linkages has not been exploited yet. The low level of inter-industry linkages is related to the lack of sub-contracting arrangements both within small producers and between small producers and large firms. It is generally recognized that sub-contracting does usually (but not



always) emerge from a particular problem of access to markets and raw materials. The demand for small scale activities' products is found to be large because of the lack of competition from large industrial enterprises. The reliance on local raw materials was reported only for traditional rural industries, but all modern branches are found to be highly import dependent. These two characteristics, in addition to limitedness of the large scale industries which are able and willing to undertake sub-contracting with small scale industries, lead to the absence of sub-contracting arrangements in Sudan (for more details on the absence of sub-contracting arrangements in developing countries see Tokman, 1978, p. 1071).

The products of handicrafts and small scale industries are found to be similar, but not perfectly substitute to the large firms products. There exists some evidence that small scale industries produce products, consumed by all income classes. Some products are specifically directed towards higher income groups (modern carpentry and car repairs). This finding stands in contrast to the inferior good hypothesis first introduced by Hymer and Resnick in 1969 (see Hymer and Resnick 1969) but has not yet been verified empirically (1). Perhaps this important characteristic of handicrafts and small scale industries in Sudan, stems from the existence of dual activities catering for different income groups (traditional and modern). Although not shown directly by these studies, the markets for small scale industries in the towns are catering for higher income groups, the rural areas' market is dominated by lower income groups. Again this issue has not been verified empirically. A large number of the examined activities showed a positive demand mainly as a result of the lack of competition with large scale enterprises and the limited infrastructure (Hansohm and Wohlmuth, 1989, p. 17). Anand and Nur disregard the study of the demand side because the effective demand is proved to be huge (Anand/Nur, 1984, p. 142). Jenkins showed that the few private enterprises constructed in early 1970s in Juba, and the small scale industries (carpentry, blacksmithing, repairs etc) are unable to satisfy even the present level of demand (Jenkins, 1981, p. 24). Gumma et al reported that 17% of the respondents identified that the reason for the choice of the small scale industrial activity in Khartoum and Wad Medani is the guaranteed market (Gumma et al, 1987, p. 92). Moreover, out of the 75% of the respondents who do not use advertisement to their products, 11.8% relate this to the excess of demand over supply and a number of others do not see any need for advertisement of their products (Gumma et al, 1987, p. 106).

Concerning employment and income of small scale activities, according to the ILO report (1987), in contrast to the agriculture which employs about 70%, the informal sector (small scale industries and services) employs about 10% of the total labour force in the country. Many households in Sudan derive a significant income from non-agricultural activities. The sources of rural incomes have slightly changed during the last few years, away from agriculture to other rural small scale activities. Evidence shows that 50% of the present composition of rural household income stem from agriculture and livestock, 30% from wage employment and 20% from other activities such as trading and handicrafts (ILO 1987, p. 40). Despite a huge variation in the income of small industrialists, many of them are found to have higher incomes compared to agriculture and formal sector's incomes. Anand/Nur survey showed that the small scale sector in Wad Medani was largely managed by educated owners (84%), and that there is a tendency of employment of a formally educated people in the modern methods-using new enterprises. Hansohm and Wohlmuth (1989, p. 17), reported that 29% of the small scale entrepreneurs in Omdurman town have worked formerly in the formal sector. This attractiveness of the small scale activities specially in the urban centers, is related to the wide income differentials that exist between this sector and the wage employment sector (Anand/Nur, 1984, p. 144). Jenkins provided some evidence that the general informal sector' wage in Juba town are not predominantly the lowest in the town despite the prolonged working hours. In his sample of 207 interviews of Konyo-Konyo market in Juba 26% stated that their main reason for the choice of the job is a good/satisfactory income and almost two third of the sample expresses satisfaction in the job. Among blacksmiths surveyed by Hansohm in Nyala, more than half described their income as good (Hansohm, 1989, p. 14). Bilal reported that for both the individual units and the informal sector at large income appear to be "unrealistically high". Bilal argued, with some evidence, that income from the informal sector is almost equal to agricultural income judged by the income pattern of the Rahad irrigated scheme' tenants (see Bilal, 1985, p. 23). The income differential between small scale industries and the other formal activities is partly related to the decline in real wages and stagnation and sometimes slight increase in agricultural incomes. Moreover this higher small industrialist income as compared to agriculture and formal income come despite a wide difference in the income of small industrialist. According to Bilal, there is a wide gap in income between different participants of the informal sector in Wad Medani town. The pattern of income distribution in Wad Medani informal sector was found to be uneven judged by the Gini coefficient. Moreover, the informal sector compared with the rural and formal sectors, showed the highest inequality (see Bilal, 1985, p. 29).

Many studies (see for example Hansohm 1986, 1989 and Bakhit et al. 1986) emphasized that there exist certain social attitude towards certain handicrafts and small scale industries in the

Sudan. For example blacksmiths are regarded as an inferior group. Similar case can be found in the traditional shoe makers and repairs. Recently this image was reported to be increasingly breaking down (Hansohm, 1989, p. 15). Moreover, some handicrafts and small scale industries are regarded exclusively to be women activities (rug weaving, mat making, pottery and palm leaves products).

Another common characteristic of handicrafts and small scale industries is the limitation of the scale of operations i.e the existence of excess capacity. In many branches of small scale enterprises of Darfur and Wad Medani the excess capacity is predominantly clear (Hansohm and Wohlmuth, 1989 and Hansohm 1989). Hansohm, for example, reported that modern metal workshops in Nyala face low capacity utilization during the rainy season as a result of the sluggish demand owing to incomes decline (Hansohm, 1989, p. 11). Out of 44 small scale industrial investors in Wad Medani and Khartoum, 20% produce under excess capacity of not more than 25% of the total capacity. Over 40% work 26-50% of the total capacity. In other words over 60% of the sample, capacity utilization do not exceed 50% (Gumma et al, 1987, p. 109). According to Anand/Nur (1984, p. 148), although the small scale industry sector has been expanding in number, the individual enterprises have not been growing internally (Anand/Nur, 1984, p. 148). The same characteristic was noted by Sen (1985, p. 29) when he pointed out that there has been a big rise in the total number of small scale enterprises in the country despite that the pattern of growth has been horizontal (i.e the duplication of similar type or scale of operations). On the contrary some evidence on the internal growth was reported by Hansohm (1989, p. 11). In the case of modern metal works, 38% of the respondents reported to increase their production compared with last year and 68% use more machines now than at the beginning. Generally speaking the excess capacity of small scale industries can be judged by how much output could be increased in the face of unlimited demand and raw materials availability. i.e excess capacity can be an indication of demand constraints or it may be a result of supply side bottleneck. It is very clear from these studies that it is the latter problem which mostly constraints the capacity utilization. As Anand and Nur observed, the variable costs is relatively very low as compared to the fixed costs of operation indicates a shortage of supply of inputs which hindered the capacity utilization. The low capacity utilization of small scale industries in Sudan, is more or less negatively related to the reinvestment in the existing plants. Jenkins showed that a large number of Northern traders (called Jellaba) dominated the informal sector in Juba. The general attitude is to sent a large portion of income saved to the northern regions (for families and friends), very little is reinvested in the southern region (Jenkins, 1981, p. 143). Anand and Nur confirm this finding in Wad Medani by pointing that the net revenue are often neither used for paying taxes nor for reinvestment (Anand/Nur, 1984, p. 18).

With regard to the problems faced by the enterprises, the most outstanding problem was found to be the lack of and expensive price of raw materials (see for example, Anand/Nur 1984, Curtis 1980 and Hansohm 1989). Anand and Nur reported that in the case of small scale primary producers in Wad Medani, the cost of raw materials is 80% of the total cost of production. They pointed out that most of the raw materials were imported and by the time that they reach primary producers the prices are exceptionally high. Curtis showed that in response to the open ended question of 'what are the main problems?', 81% in all groups are reported to identify raw materials unavailability as a constraint. About 55.6% out of the total of 81 samples in Khartoum and Wad Medani towns, face the problem of shortage of raw materials and 24.7% identified the increase in the prices of raw materials as a major constraint (Gumma et al, 1987, p. 111). Hansohm found that the principal constraint of almost all small scale industries in Nyala is the supply of raw materials rather than technical and managerial capabilities (Hansohm, 1989, p. 25). According to Jenkins, as a general rule, the working population of Konyo-Konyo market in Juba are hampered by the problem of supply of raw materials and poor working conditions, (Jenkins, 1981, p. 147). Babiker, pointed to the effects of the environmental deterioration resulting from overgrazing, overcultivation and the introduction of highly technological agriculture and agro-industries (such as Khash El Girba, Rahad, and the mechanized farming cultivation in Gadaref areas) on raw materials availability. Among the main problems of Tinna project mentioned by Hansohm (1986) and Development Co-operative Training Center (1984) is the higher prices of raw materials. Bakhit et al reported that the main constraints faced by the traditional shoemakers in Darfur is the lack of capital to buy raw materials, the irregularity of raw materials' supply and a rapid increase in their prices. Market for raw materials are dominated by few traders (Bakhit et al. 1986), this explain the shortages and the higher prices. Despite the raw material limitation Babiker et al showed that in the case of dom-palm leaves, and despite the disappearance of dom-palm trees as a result of environmental degradation and extensive cutting, they are imported from Kassala and Eritria. This means, following Babiker, once an industry is established it would continue to exist even if the main factor behind it's development ceases to exist (Babiker, 1982). The development of these and other activities even with the shortage of raw materials is possible through raw materials brought from other regions or from abroad. Moreover the problem of credit was raised by many studies. For example Hansohm (1986, p. 247), pointed to the limited degree of Sudan Rural Development Company and the Industrial Bank of Sudan to finance small scale industries. Some studies also revealed that most of the enterprises' owners rely exclusively on self-financing, except in the trading activities in which some traders are dependent on merchants for financing at a very high rate of interest (see Hansohm and Wohlmuth, 1989, p. 18). Gumma et al related the low level of bank financing to the small industrialists' constraints (lack of spare parts, power, and inadequate management), and the

absence of adequate guarantee (Gumma et al. 1987, p. 149). Other studies, for example Babiker, showed that rural industries usually carried out by hand and with primitive tools and sometimes very little capital is needed so that there is no serious problem of financing in the Eastern part of the country. Other problems raised include poor training, poor conditions and inadequate facilities, weak political representation, infrastructure and power.

Finally for the policy issue the result was mixed. The available evidence from some of these studies shows some non-neutrality with respect to the policy environment towards handicrafts and small scale industries, (the non-neutral and balance character of incentives and protection, allocations and regulation policies with respect to the size brought by the investment codes), (see Hansohm and Wohlmuth, 1989, Hansohm, 1989 and Curtis, 1980). The effects of these policies on competitiveness of small vis-a-vis large firms is recognized by these studies but are not assessed fully. They see the main trend towards the development of these activities is related to the improvement of policy environment. Lobbying for policy reforms in favour of small scale industries; Progress in the overall structural adjustment policies, specifically those for industry and agriculture in addition to the revision of the investment Act of 1980, are favoured by Hansohm and Wohlmuth (1989, p. 24). Curtis related the issue of better access to raw materials to the government policies of price import and foreign exchange control. Likewise Gumma et al. (1987, p. 111), showed that part of the reasons for the shortages of raw materials is related to the government policy (foreign exchange shortages and high import duties). The studies see the solution to the problem of raw materials lies in the effective control, stronger political representation of the small scale producers, and effective purchasing power through co-operatives. Others studies show direct assistance via projects, programmes, institutional assistance and infrastructural development (see, for example, Babiker 1982, Jenkins 1981, Anand/Nur 1984). Other showed mixed policies, for example, among the main policy recommendations by Bakhit et al are: financing through channelling bank's funds to the co-operatives and associations, breaking of monopolies by building self-help organizations to compete with traders in supplying working materials, and the strengthening of the existing training centers in addition to state intervention to improve raw materials imports. Gumma et al called for co-operatives to solve the problems of financing and the government imports incentives (Gumma et al, 1987 p. 161), (see table 2). Some studies pointed to the disappointing results emerging from the application of direct assistance programmes by the government, donors and voluntary organizations (2), and to the inappropriateness of these measures in the case of a widely dispersed and heterogenous structure of small scale industries as is the case of Sudan (see for example Hansohm, 1989, p. 3). Despite these different approaches for reforms, studies came to confirm an optimistic view that small

scale producers, despite the constraints and given appropriate policies, can be expanded and developed.

(4) A Critical look into Studies of the Small Scale Industrial Activities in Sudan:

The small number of research projects undertaken so far in the field of handicrafts and small scale industries in Sudan, shared the characteristics that they are generalized and lacking firm and comprehensive data. Many doubts are raised about their coverage and accuracy. Despite that these studies express certain views on the constraints and growth potential of small scale producers, but they are not based on a comprehensive evaluation. In most cases they are confined to certain kind, and small number of activities in certain big locations. Apart from Anand and Nur study and Hansohm study (1989) (those are relatively comprehensive census survey), no complete study has been undertaken up to now. All studies are based on selective handicrafts and small scale industries, and small number of interviews with the relevant government institutions. The duration of these studies is also limited. For example Hansohm study (1986) is composed of only 16 days survey. Informations available from these studies are of primary character because they employ cross section surveys based on small number of interviews, cite visits and questionnaire. For example Curtis uses only 37 questionnaires, which is not by any means representing all activities in the area of Khartoum. Curtis study admitted that the hypotheses were loosely formulated and derived from work on other countries without testing their relevance to the area under study. The execution was so rapid that some questions do not yield the intended informations. Producers are chosen arbitrary and the interviews do not represent the whole activities. Relying exclusively on certain big centers, these studies provide some incomplete hints on certain evidence related to the location, types, number, products, size of workshops, organization, supply of tools, equipment, and raw material in addition to the issue of small producers' representation and the main constraints including the attitude of the public policy towards this sector and the possible solution.

In all of the studies undertaken up to now there is no consensus how to define handicrafts and small scale industries. Conceptions and definitions vary dramatically. The criteria for defining small scale industries in Sudan take either employment and/or capital investment (see table 3). Despite that definitions were based on the same criteria, (i.e employment, and capital investment), they tend to differ according to each institution's criterion for assistance eligibility. It is quite surprising that the definition given by the Sudanese Craftsmen and Small Enterprises Union (SCSEU) is wider in coverage and include all industrial activities that produce products and services "without the use of modern equipment and with the use of local raw materials" (see the Sudanese Craftsmen and Small Enterprises Union, 1988). Definitions offered by individual researchers are functional definitions and

differ according to the research analysis and the type of small scale industries (or non-agricultural small scale activities in general) the researcher has in mind. While the Department of Statistics employs a definition of small scale industries which includes enterprises with less than 25 employees and the Handicraft Survey of 1970/71 defines a handicraft unit as a unit engaged in the production of goods and services without using modern equipment (Hansohm and Wohlmuth, 1989, p. 13), other studies, for example Gumma et al, identify small scale industries by the employment of fewer than 50 persons. (Gumma et al, 1987, p. 83). Hansohm (1986), includes all "productive economic activities that are non-agricultural and non-factory", (Hansohm, 1986, p. 245). Curtis takes the ILO definition of the informal sector of urban economies. Bilal uses a definition which represents more heterogenous activities as compared to the ILO definition of the informal sector in Kenya (ILO, 1972). He follows the ILO categorization of the informal sector applied to Khartoum area (ILO, 1976, p. 373). This definition does not necessary shows all the characteristics of the ILO report in Kenya. Anand and Nur used the concept of the unincorporated small scale sector which "include small firms with self employed owners and sometimes a few other workers either paid outsiders or unpaid family members" (Anand/Nur, 1984, p. 137). Anand Nur's definition includes all non-farm activities (repairs, construction, petty trade, small manufacture and other services), The characteristics of these activities follow the ILO definition of the informal sector (see ILO 1972). Bakhit et al use the concept of "handwerk" which include a wide range of handicrafts, cottage industries and small scale industries (Bakhit et al, 1986, p. 8). Jenkins, who is concerned with the informal sector in Juba town, employs the concept of the informal sector first developed by the ILO report to Kenya and which covers a wide range of activities both in the sphere of production and services. Despite the use of the ILO concept of the informal sector, Jenkins' work excludes other activities which lie within the ILO definition. This is due to the fact that the ILO informal sector concept is vague, imprecise and wide ranging.

Studies of handicrafts and small scale industries are all characterized by arbitrary selection of the sample, the type and the number of handicrafts and small scale industries to be studied, Activities usually chosen are based on certain big locations, disregarding the small locations like villages or even a comparison between the big and small locations. Very important questions related to the volume of activities and the nature of demand (both current and expected), import and capital intensities of different activities, are either absent or if available are partial in coverage and descriptive. A pronounced characteristic of these studies is the lack of marketing surveys and opportunities, marketing channels, and the assessment of the role of traders both in selling the final product and supplying raw materials. Moreover, all of the studies follow the ILO cross section surveys and identify the small scale activities by the

total number of employment. Following Schmitz (1982) the identification of different kinds of small scale industries which are subject to different constraints and the classification of the informal sector (in which handicrafts and small scale industries is part) in terms of persons rather than enterprises are among the main problems of the studies based on cross section surveys. In the case of the studies on the Sudanese handicrafts and small scale industries, no investigation was undertaken to survey and contrast certain branches of these activities.

(5) Towards a New Empirical Research Agenda on Handicrafts and Small Scale Industries in Sudan:

The role of handicrafts and small scale industries in the process of economic development of Sudan has recently received some attention by individual researchers and international organizations. Unfortunately, up to day, very little is known about these activities in Sudan. Consequently, there is more than one gap still remained to be filled and much is yet to be learned. More important is the potentialities of these activities in the structural adjustment of Sudan defined by the World Bank as a viable balance of payments condition and sustained growth. These potentialities include import saving and the regional development as part of the structural adjustment.

The available evidence indicates that small scale industries are a dominant component of the Sudan industrial sector. Not only are the overwhelming majority of the industrial establishments small, but they account for a significant component of industrial employment, share of value added etc. Moreover, the performance indices of the manufacture sector show many comparative advantages (with some exceptions) of many branches of small scale industries over the large scale counterparts over the degree of processing, productivity, and profitability (for more details see UNIDO, 1985). Some qualifications of the industrial survey needs to be stressed. Only registered enterprises are covered. Informal part time sector (mainly handicrafts and rural industries) are not covered. Moreover the survey is biased towards small grins and milling and it is concentrated in Khartoum province and the central region.

Research studies indicate some evidence concerning this sector, but is constrained by the gap in the data coverage. The existing data (whether from the Industrial Surveys or from the field surveys) are not detailed enough to broadly focus on the role of these small scale enterprises in the economic development of the country at large specially their potential role in the structural adjustment.

In addition to our emphasis of the lack of data, there are many points need to be stressed in connection with neglected research areas. What is lacking in Sudan are branch-specific empirical



studies of different parts of the country to evaluate the potential contribution of different branches to the structural adjustment. Moreover, comparative studies whether those concerning selected villages and rural towns or the difference in capital and import intensities of different branches of handicrafts and small scale industries and their implications for structural adjustment and the promotion of these activities need to be researched. The analysis of the channels of trade and the assessment of the role of traders in the provision of raw materials and selling of the final products; the present and potential linkages with the other sectors of the economy (specially agriculture); the investigation into the gap that exists between the traditional and modern branches and how to bridge this gap through for example intermediate technology; the institutional side including the representation of the small scale industrialists and the appropriate organizational structure of the Sudanese Handicrafts and Small Enterprises Union; the investigations of the present and the potential relationship between local income and the demand for the handicrafts' and small scale industries' products; all these constitute new agenda for empirical research on these important, but neglected areas.

Footnotes:

(1) Hymer and Resnick argued that the products of small scale industries are inferior (i.e the demand of them would decline as income rise (for more details see Hymer and Resnick, 1969).

(2) A very good example of the direct assistance project in Sudan is Northern Kordofan Carpets and Mats Co-operative Industry in Tinna. The project was planned in the six-year plan (1977/78-1981/82) and financed by EEC, ILO, UNDP, and U.N voluntary fund for women decade. The aim of the project is to utilize the raw materials available and provide work opportunities specially for women. The project proved a total failure. Among the problems identified is the raw materials price and higher migration rates. The project itself does not consider the socio-economic environment of the area (for more details of the nature of the project see Development of Co-operative Training Centers, 1984, for the analysis of the anatomy of failures see Hansohm, 1986 and also Development of Co-operative Training Centers, 1984)

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Statistical Appendix:The Structure of Small Scale Industrial Activities by Region \*

Table 1

	Food Beverages & Tobacco	Carpentry	Welding & Blacksmithing
Kordofan and Darfur Regions	—	( )	—
Khartoum		—	( )
Eastern Region	—		—
Central Region	—		
Southern Region	( )	—	—
Cont.			

	Wood Industry	Mechanical Services	Wholesale & Retail Services	Electrical Workshops
Kordofan & Darfur		—		—
Khartoum	—	( )	( )	—
Eastern Region	—			
Central Region		—	( )	
Southern Region	—		( )	
Cont.				

	Other Services	Tannery & Leather Work	Weaving of Mats, Bags	Spinning & Weaving of Wool
Kordofan & Darfur	—	( )	( )	( )
Khartoum	—			
Eastern Region	—	—	( )	—
Central Region	( )			
Southern Region		—	—	
Cont.				

	Agricultural Implements	fishing, Forstry & Hunting Activities	Textile & Weaving
Kordofan & Darfur	—		
Khartoum			
Eastern Region			( )
Central Region			
Southern Region		( )	

\* The table revealed the major sub-sector activities and their distribution. Each sub-sector activities may be divided into a wide range of homogenous products (both in quality and use). As a result of the heterogeneity of the structure of handicrafts and small scale industries in Sudan. The task of identifying all the activities and products is neither possible nor essential.

( ) Indicates the most dominant activities in the region.

Sources: Combined from Babiker, (1982), Anand/Nur (1984), Jenkins (1981), Bakhit et al. (1986), Hansohm (1986), and Curtis (1980).

Table 2

Policy Reforms Versus direct Assistance: Policy  
Recommendations by Different Studies on Small Scale  
Industrial Activities in Sudan.

Author	Location	Types of Activities
Babiker (1982)	Eastern Sudan	Rural Small Scale Industries
Jenkins (1981)	Juba (South Sudan)	Informal Sector
Curtis (1980)	Khartoum North	Small Scale Industries
Hansohm (1986)	Kordofan and Darfur (Western Regions)	Handicrafts and Non-Agricultural Activities
Anand/Nur (1984)	Wad Medani Town (Central Region)	Small Scale Enterprises
Bakhit et al. (1986)	Darfur Region	Small Scale Industries
Gumma et al. (1987)	Khartoum and Wad Medani	Small Scale Industries

Cont.

Author	Policy Recommendations	Direct Assistance Recommendations
Babiker (1982)	—	Creation of demand areas by establishing better means of transportation. Better training.
Jenkins (1981)	—	Creation of small scale saving scheme. Encouragement through co-operatives or groups of craftsmen.
Curtis (1980)	Reforms of government policies of price, imports and foreign exchange control.	Credit programme, institutional reforms. Creation of co-operatives to purchase inputs and undertake currency exchange and import formalities. Traditional type policies: maintenance of roads and rented buildings, police services etc.
Hansohm (1986)	Reforms of industrial agricultural, foreign exchange, fiscal and tariff policies. Creation of appropriate reform of the government Investment Policy.	---
Anand/Nur (1984)	—	Provision of infrastructure and financing (better road, and cheap credit). Improve marketing, better tools and training.
Bakhit et al. (1986)	State intervention to improve raw material imports and;	Financing through co-operatives. Extending the capabilities of the existing training centers.
Gumma et al. (1987)	Government control and incentives (reduction of import duties) and	Infrastructural facilities and the creation of co-operatives.

Sources: Combined from Gumma et al. (1987), Bakhit et al. (1986), Anand/Nur (1984), Hansohm (1986), Curtis (1980) Jenkins (1981) and Babiker (1982).



Table 3

Definitions of Small Scale Industries In Sudan by  
Various Institutions

Institutions	Definition
Department of Statistics & the Industrial Survey- Ministry of Industry;	Employment: Fewer than 25 Employees.
Arab Industrial Development Organization (AIDO)	Employment: Fewer than 24 Employees. Investment: LS 500000 *.
Industrial Bank of Sudan (IBS);	Employment: Between 25 ad 50 Investment: Not Exceeding LS 500000.
Institute of Industrial Research and Consultancy (IIRC);	Employment: Between 10 & 50 Investment: Between LS 40000 and LS 200000
Sudan Rural Development Corporation (SRDC);	Investment: Not Exceeding LS 25000
Ministry of Co-operation	Employment: Between 10 & 15
Sudan Industrial Investment Acts (1956, 1967, 1972 and 1980)	No Definition was provided
United Nations Industrial Industrial Development Organization (UNIDO)	Employment: Fewer than 50 Investment: Not Exceeding LS 350000

\* Investment in fixed assets (land, building, machinery, etc..)

Sources: Combined from, Sen (1985, pp. 56-57)), and Gumma et al. (1987, p. 82)

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