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BAGS AND BAGGING MATERIALS IN THE CENTRAL AFRICAN SUB-REGION

TABLE OF CONTENTS

<u>Chapter</u>		<u>Paragraphs</u>
I	THE MARKET: BREAKDOWN INTO CATEGORIES. . .	1 - 5
II	FACTORS AFFECTING DEMAND FOR "NEW" PRODUCTS .	6 - 12
III	STRUCTURE OF DEMAND: UDEAC COUNTRIES . . .	13 - 18
IV	DEMAND STRUCTURE IN THE CONGO (DEMOCRATIC REPUBLIC)	19 - 21
V	EXISTING CAPACITIES AND PROJECTS.	22 - 39
VI	DEMAND PROJECTIONS: 1975 and 1980	40 - 46

I. THE MARKET: BREAKDOWN INTO CATEGORIES

1. The market for jute (and similar) fabrics and bags exists in the countries of the Central African sub-region as a natural complement to the role of agriculture in the economic structures on the one hand and as a direct response to the standards of packing required in international trade for the primary commodities - cotton, coffee, cocoa, peanuts, palm kernels, among others - exported from the countries of the sub-region.
2. The market is conveniently divided into two main categories:
 - (a) The first group consists of the market for hessian, a fabric mainly used in the sub-region for the packaging of cotton bales. This has comprised the smaller part of the demand hitherto. Indeed, in the UDEAC countries the relative proportion has declined in recent years;
 - (b) The second group comprises the market for sacks, which may be further divided into four clear-cut sub-groups as follows:
 - (i) The market for new, empty sacks imported after payment of all import taxes or produced within the sub-region;
 - (ii) The market for new, empty sacks imported on an admission temporary basis, with the express understanding that these will be re-exported in the shape of containers with the commodities exported. The two sub-groups are not always exclusive of each other, because the delay and administrative requirements necessarily involved in the second sub-group often encourage the use of the first sub-group;
 - (iii) The market for used empty sacks, imported as such; and finally,
 - (iv) The market for sacks which are imported as containers for imported produce, such as sugar, cereals or fertilizers.
3. The new, empty sacks (categories i and ii above) are almost entirely used for the packaging of export crops. In consequence, the bulk of these sacks involve only a single export-use transaction. The remaining two categories are used for internal traffic in agricultural and other commodities. These categories of sacks are also capable of being utilized repeatedly.
4. New sacks are the most expensive (category i being more expensive than category ii) and the used, empty sacks imported (category iii) are less expensive. The third group, called "pleins", are a case of "joint supply" and prices are determined more by total stocks within each country, at any given time, rather than by direct demand as such.

5. In effect, used, imported sacks and "pleins" are thus outside of the demand for "new" sacks and local manufacturing capacity will normally deal with a scale of demand which is distinctly smaller than the size of the overall market.

II. FACTORS AFFECTING THE DEMAND FOR "NEW" PRODUCTS

6. The main factors in the demand for "new" jute products are the growth of production of export commodities like coffee, cotton, cocoa, peanuts, etc., and to a smaller extent, the growth of output of manufacturing industries in general and in particular industries, like cement, sugar and fertilizers which often distribute their output in bags.

7. In several countries of the sub-region, especially Cameroon, the growth in agricultural output has been reflected more or less fully in the increase in consumption of "new" jute products. Conversely, in the Congo (Democratic Republic) the decline in agricultural output has adversely affected the overall consumption of "new" jute goods. However, several factors have been and are at work in the countries of the sub-region, apart from the particular situation in the Congo (Democratic Republic), which limit the correlation. Briefly, these are considered below.

8. The bulk handling of agricultural products has made some headway in the countries of the sub-region, although the progress is limited as of now. The progress made has taken several directions. Firstly, ships are often so equipped as to be able to transport agricultural cargo in bulk. Secondly, ports are increasingly being equipped with mechanical handling facilities on the one hand and silos for storage on the other. These facilities have several advantages, although these are also capital intensive. The "turnaround" time of wagons used in internal movement from the producing or primary storage centres is reduced, thereby increasing wagon availability during peak seasons of operation. The time involved in loading a ship is reduced to one-fourth or less. The working capital invested in the holding of stocks is also considerably reduced, and the vulnerability of stocks to adverse changes in weather also becomes a factor of smaller significance. The whole development, however, implies that jute bags are no longer sent out of the country along with the primary products exported. As such, these can be used several times over in the course of an agricultural year. In addition, as internal movement does not have to be in "export" quality bags, a cheaper bag becomes a viable proposition.

9. In other words, under conditions of bulk handling the export of a bag size shipment no longer corresponds with the use (and export) of a bag. As of now, bulk handling has just made a beginning. Its future impact - aided by increasing wage levels in the countries of the sub-region - will be even greater.

10. Increasingly, the countries of the sub-region are interested in processing large parts of their exports, and the processing (for example, groundnut oil instead of groundnuts) often implies that the goods can no longer be shipped in jute bags.

11. Finally, it seems possible that the supply of "pleins", the sacks in which some of the imports are received, has expanded at a rate much higher than the import of jute bags, new and old.

12. Taken together, these developments must lay a constraint on the rate of increase in the demand for new jute manufactures, particularly sacks. Moreover, a conscious drive for the modernization of ports on the part of governments is to be expected and as a result bulk handling will become steadily more important.

III. STRUCTURE OF DEMAND: UDEAC COUNTRIES

13. Table III.1 presents details of the imports of new jute sacks and fabrics in the five UDEAC countries.

14. The main points to crystallize from the data in Table III.1 are:

- (i) Treating 1955 to 1964 as terminal points, overall demand grew at an annual rate of about 5.5 per cent, compounded;
- (ii) Nonetheless, demand in 1961 and 1962 was less than three-fifths of the demand in 1955;
- (iii) Sharp fluctuations, on a country basis, as between one year and the next are frequent, in response to inventory fluctuations, changes in agricultural output of bagged commodities and statistical anomalies;
- (iv) In 1963 and 1964 (the trend has continued to operate in 1965 and 1966) Cameroon comprised nearly three-quarters of the total UDEAC market for sacks and one-twelfth of the UDEAC market for fabrics;
- (v) Keeping in view the various sources of statistical anomaly and the likelihood of some imports on an admission temporary basis not being recorded, the overall market for new sacks in 1963-1964 is placed at 3,300 metric tons and the overall market for fabrics is estimated at 350 metric tons.

Used sacks

15. Table III.2 (page 7) juxtaposes available information about supplies of used sacks (empties and "pleins") made of jute as well as other materials in the four UDE countries.

16. It will be seen that the supply of old sacks was nearly half as large as the import of new bags in 1963, and that "pleins", from materials other than jute, also are a large (and growing) element in the situation.

Uses, prices

17. Imported jute fabrics are mostly used for the packaging of cotton bales in Chad, Cameroon and the Central African Republic. In the case of Cameroon, a couple of small plants are engaged in the conversion of imported sacking fabric into sacks. The c.i.f. price of imported hessian varies over a wide range, and an average of 110 fr. CFA per kilo is not unrepresentative. The price at the user's location - ginneries - is likely to be higher by 15 to 20 fr. CFA.

Table III.1 : Trends in the consumption of jute products in UDEAC countries: 1955 to 1964
(in metric tons)

Years and category of imports	Cameroon	CAR	Congo (Brazza.)	Gabon	Chad	UDE countries	UDEAC countries
1955							
Jute fabrics						292	
New, empty sacks	1,469					383	1,852
Total imports						675	
1961							
Jute fabrics	28	245	19	1	3	268	296
New, empty sacks	540	87	266	7	58	418	958
Total imports	568	332	285	8	61	686	1,253
1962							
Jute fabrics	38	71	4	0	216	291	329
New, empty sacks	428	109	234	1	137	481	909
Total imports	466	180	238	1	353	772	1,238
1963							
Jute fabrics	48	74	3	0	315	389	437
New, empty sacks	2,298	66	540	4	172	782	3,080
Total imports	2,346	140	543	4	487	1,171	3,520
1964							
Jute fabrics	36	30	0	0	237	267	303
New, empty sacks	2,303	114	394	32	235	775	3,078
Total imports	2,339	144	394	32	472	1,042	3,381

Source: Based on official and other statistics.

Note: The total for UDEAC countries occasionally have a small discrepancy on account of rounding of figures.

Table III.2 : Recorded imports of all kind of sacks in the UDE countries in 1963

	CAR	Congo (Brazza.)	Gabon	Chad	UDE
New empty sacks, jute	66	540	4	172	783
New empty sacks, other	7	15			23
Old empty sacks, jute			1		1
Old empty sacks, other					10
Sacks "pleins", jute	124	160	85	14	385
Sacks "pleins", others	37	125	31	32	227

Source: UDE statistical publications.

Totals will not always tally because of rounding.

18. The sacks imported, mostly from India, are of the "B twill" type and weigh around 1 kilo per sack. These bags are used for the packaging of cocoa, decorticated groundnuts; palmiste kernel, sesame, among other products. Another main type of sack imported is somewhat lighter (and smaller) and is principally used for coffee beans and secondarily for groundnuts in shell, copal, red pepper, gum, etc. The c.i.f. prices of these bags vary between 65 to 80 fr. CFA at Point Noire (roughly equivalent to 80 to 95 fr. CFA "rendu magasin" at Bangui in the case of bags brought in on an "admission temporary" basis. Imports on which all duties have been paid are likely to cost between 125 to 155 fr. CFA "rendu magasin" at Bangui. In both kinds of cases, internal prices vary further according to additional transport costs incurred (these can be fairly sizable in all countries of the sub-region).

IV. DEMAND STRUCTURE IN THE CONGO (DEMOCRATIC REPUBLIC)

19. In 1958, the total consumption of new jute products in the Congo (Democratic Republic) was placed around 14,000 metric tons. It has declined steadily since and in recent years has stabilized around 6,000 metric tons. In one small part, of course, the fall in consumption (met almost wholly from local production) has to do with substitutes and bulk handling. In the largest part, general developments in the economy are responsible. The latter are reviewed further in subsequent paragraphs insofar as these bear on the limited concern of the present study. 1/

20. The substantial fall in the gross domestic product in the first years of independence had the following adverse effects: 2/

	1964 compared to 1958
Fall in the production of goods in the monetized sector	13 per cent
Fall in agricultural output for export	37 per cent
Fall in <u>total</u> agricultural output	25 per cent

21. In consequence, the exports of coffee were down by 61 per cent in 1965 compared to 1958. The substantial exports of cotton (53,000 metric tons in 1958) vanished altogether. Those of oilcakes were down by 61 per cent of copal by 82 per cent. Moreover, as the country turned from a net, small-scale exporter of maize and rice into an importer (over 90,000 metric tons in 1964) an additional source of "pleins" became available. The situation in the export trade has remained more or less static (in tonnage) in 1966, although the economy at large has recorded significant progress.

1/ Developments in the national industry are surveyed in the next chapter.

2/ CEE, Commission, Possibilités d'industrialisation des Etats africains et malgache associés, République démocratique du Congo, Vol. 1 Rapport, December 1966, page 103.

V. EXISTING CAPACITIES AND PROJECTS

The Congo (Democratic Republic)

22. Two plants based on national supplies of Urena and Punga have been in production for over two decades.

23. The first and larger plant is located at Kinshasa. Its (TISSACO) 77 looms are capable of manufacturing 6 to 9 million sacks on a 2-shift basis. In addition, the plant has capacity for the production of 800,000 m² of fabric and 100 metric tons of cordage products. The plant runs at 100 per cent capacity, calculated on a 2-shift basis, and is believed to have set up another plant for similar products with an annual capacity between 800 to 1,000 tons after 1966. Employment in 1966 was reported to be 485. The plant is almost entirely responsible for the export of sacks from the Congo (Democratic Republic) (500,000 to 750,000 sacks per year).

24. The second plant, BAERT at Ngangi, has an annual capacity of 2 million sacks and, in addition, manufactures ropes, twine and furnishings. Output however has been running at a low rate (around 30 per cent of capacity in 1963/1964).

25. The total output of sacks reached 6.985 million in 1957 and has more or less steadily declined in subsequent years in response to adverse general conditions:

1958	4.8 million sacks
1963	5.3 " "
1964	4.6 " "
1965	3.4 " "

26. Similar adverse trends, on a smaller scale, have affected the output of packaging fabrics. (The precise trends are somewhat difficult to determine, because official and quasi-official publications give widely varying figures of production). In 1965, 1.8 million m² were reported to have been produced.

27. Statistical difficulties are present in the case of ropes and twine (2 or 3 smaller units additionally exist in this case) but current output (1965) is reported to be around 73 metric tons, which indicates a comparatively low rate of capacity utilization.

28. The combined capacity of the plants on a 2-shift basis, is placed around 7,000 metric tons equal to 7 million bags, and the small quantities of other products. On a three-shift basis the total capacity might be placed around 11,000 metric tons or 11 million bags.

29. At one stage in 1966 it appeared that the plans for another plant, with an annual capacity of 500 metric tons, had fairly advanced. No recent information is however available on the point.

The Central African Republic

30. The State has taken an active hand in the development of the culture of roselle ^{1/}, also known as Oseille de Guinée. It is proposed to increase the output to supply a spinning plant proposed to be set at M'Poko by a company in which the State will have a substantial equity stake. The plant is to have an annual yarn output of 1,000 metric tons.

31. The output of yarn will be converted into fabrics and sacks by SACAF, a company in which too the State will have an equity stake. The company's plant will produce about 270 metric tons of packaging fabrics and 840,000 sacks (of which, 350,000 coffee bags). Inasmuch as the current market in the Central African Republic is small, the bulk of the output will need to be exported.

32. The initial output, ex-factory, will be of the order of 85 million fr. CFA in the spinning company; and of the order of 132 million fr. CFA in the weaving company.

33. The plant capacities proposed are small in relation to any optimal considerations and the eventual price of roselle will form the crucial element in determining the extent of State support required. Moreover, whereas roselle is a fairly satisfactory fibre in the making of sacks (though not as good as jute or kenaf) it is comparatively unsuitable for the making of fabrics. On other general considerations - high building costs; high wage/salary levels; high financial charges; and larger working capital requirements - it is likely that the unit costs at Bangui will be considerably greater than international prices. In other words, the plant will require heavy protection at home and substantial subsidy in seeking export outlets. Against all the adverse factors, the future plants and the inherent cultivation of roselle will obviously confer social advantages on the agricultural and industrial sides. It is only fair to point out that the balance is rather delicately perched, insofar as can be judged.

34. Finally, reference should be made to the existing plant of CIAO at Bangui which has the capacity to treat 1,000 tons of fibre and the capacity to manufacture 100 metric tons of ropes and twine (output in 1964: 21.5 metric tons).

^{1/} Hibiscus sabdariffa (family malvacées); variety chosen, Altissima. The selection was done by the IRCT.

Cameroon

35. Apart from the existing small workshops which convert imported sacking into bags, Cameroon has no basic bag-making industry.

36. A provisional agreement has been signed with a West-German firm for the setting up of a 2,000 metric ton plant, but this seems to be doubtful of realisation.

37. The second plan visualizes demand in 1970-1971 at 3,700 metric tons and proposes the setting up of a plant with an output of 2,400 metric tons in 1970-1971. An investment of 400 million fr. CFA is envisaged, as well as measures to create suitable supplies of fibre within the country. Some of the comments on the Central African plant are relevant here as well.

38. No other projects are envisaged in the sub-region.

Gross output, value added

39. From secondary sources, it is gathered that gross output in the Congo (Democratic Republic) industry averaged US\$1.53 million in 1961-1963. Value added was given as US\$306,000.

VI. DEMAND PROJECTIONS: 1975 and 1980

40. According to the macro-economic framework given, the output of agriculture (including forestry and animal production) will increase at an annual, compounded rate of 3.5 per cent for the sub-region during 1963-1980. Country-wise projections imply growth at annual rates (compounded) varying between 2.8 to 5.5 per cent. No projections have been supplied as to the actual breakdown of agriculture into various crops, and no breakdown is available of the proportion of forestry and annual production sectors, which are more or less irrelevant to the demand for new bags or fabric considered in the present study.

41. Anyway, it would appear prima facie reasonable to accept that the growth of the monetized sector of agriculture would take place at a higher rate than indicated earlier. This would be supplemented further, insofar as new jute-type fabrics are concerned, by the possible growth of sugar, fertilizer, cement and other similar industries which bag their products for sale. No specific information (or projections) are available in this category either, although the direction of the trend is clearly upward. As a first hypothesis, an increase (over the long term) of 5 per cent per year, compounded, in the overall market would be tenable.

42. Several factors would tend to reduce the hypothesis advanced. The most important of these are:

- (a) Advances in bulk handling in ships, at ports and at railway terminals;
- (b) The export prospects of the Congo (Democratic Republic) industry are to be possibly viewed with misgivings;
- (c) The growth of processing industries within the sub-region will often have the effect of cutting the demand for bags and bagging materials;
- (d) The supply of "pleins" of all kinds is bound to increase as a result of enlarged imports; and
- (e) Substitutive materials are certain to advance at a higher rate.

43. The cumulative effect of all these factors would be to lower the tentative rate of increase in overall demand which was advanced, 5 per cent, to a level somewhere around 4 per cent. This would lead to the following first approximation about the level of demand in 1975 and 1980.

Table VI.1 : A first approximation of demand: 1975 and 1980
(in metric tons)

	Demand (1963)	First approximation of demand (1975)	First approximation of demand (1980)
A. UDEAC countries	3,400		
B. Congo (Dem. Rep.)	6,000		
C. Sub-region (A+B)	9,400	15,000	18,300

Source: See text.

44. The given macro-economic framework however implies a somewhat higher rate of growth in agricultural output during 1975-1980 than it does during 1963-1975. As a result, the first approximation of demand for 1975 should be adjusted somewhat downwards, say to 14,000 metric tons instead of 15,000 metric tons. At the revised level, the capacity of the industry in the sub-region (14,000 metric tons by 1970-1971 ^{1/}) would be in balance with the supply. Moreover, clear indications would be available of the experience with the unit costs and the cultivation of fibres which would enable a rational decision on future expansion.

45. In the light of these considerations, no new plants are proposed in the context of the 1975 level of demand.

46. The difference between the first approximation of demand (1980) and the likely capacity of the sub-regional industry is around 4,000 metric tons. In view of the small size of existing plants, assuming that experience and availability of fibres favour the creation of this additional capacity, the gap ought to be directed wholly to the expansion of existing units in order to render these more viable in technical and economic terms.

^{1/} The Congo (Democratic Republic), 11,000 metric tons (on three-shift basis) + the Central African Republic and Cameroon projects, 3,400 metric tons.