THE AFRICAN PACKAGING LANDSCAPE

A USER'S GUIDE FOR

South Africa, Tanzania, Uganda, Mozambique and Nigeria

Acknowledgments

Mr. Tom Owuor, JICA consultant on packaging prepared this report largely drawn from PACKit Country reports authored by the International Trade Center (ITC).

The report presents a picture of the packaging situation in each country going further to list them alongside Training institutions that would act as reference points for the OVOP groups in Africa.

Preface

This study follows others that have been conducted by Japan International Cooperation Agency (JICA) aimed at supporting MSME's and enhance enterprise competitiveness. It aims at creating a network of packaging suppliers who can be relied upon to address the ever increasing packaging challenges facing enterprises at various levels in the African market.

JICA, through the One Village One Product (OVOP) concept operates in 11 African Countries where they have identified a number of self-help group offering a range of products but of course with challenges that eventually make it difficult for the products to effectively penetrate either the local or international markets. The OVOP groups in most Countries have not gone beyond their localities in terms of marketing and it has been proven that packaging alongside mandatories like labeling and meeting international quality standards have been a major hindrance factor.

Most of the OVOP groups in a way consider packaging as a cost. For one, the enterprises consider quality packaging as meant strictly for big businesses like Unilever and others who play in that league. The products offered, much as are of good quality, in most cases do not have a good package as on a number of occasions they clean and recycle the packaging material offered by the big players. To this end most of the major packaging consumers have become wiser, they now have their brand names inscribed on the packaging material to avoid this. If this trend were to continue then MSME's like in the case of Rwanda will find difficulties since most of them reuse packaging that has been discarded by the breweries industry.

Some of these challenges have drawn the attention of JICA and other development partners such as ITC, UNIDO, UNDP to try and work with MSME's across Africa in capacity building aimed at urging African Policy makers to appreciate the role that Packaging plays in product development.

It is therefore important that African governments take the packaging agenda seriously to facilitate enterprise competitiveness at both the local and international markets.

Acronyms and Abbreviations

OVOP	One Village One Product
JICA	Japan International Cooperation Agency
MSME	Micro Small and Medium Enterprises
ITC	International Trade Center
LDPE	Low-Density Polyethylene
HDPE	High Density Polyethylene
PE	Polyethylene
PET	Polyethylene Teraphthalate
PP	Polypropylene
PVC	Polyvinyl Chloride
UNIDO	United Nations Industrial Development Organization
CIDA	Canadian International Development Agency
CMB	Carnaud Metal Box
SABS	South Africa Bureau of Standards

Table of Contents

1. INTRODUCTION

Enterprise competitiveness in Africa especially among the Micro Small and Medium Enterprises has been discussed in various fora and reports written but rarely has initiatives like OVOP been taken to the level of implementation. The One Village One Product which originated in Oita prefecture, Japan is one example of a regional development policy now under implementation by close to 12 African governments. These Countries are; Kenya, Malawi, Ethiopia, Zambia, Mozambique, Senegal, South Africa, Ghana, Uganda, Tanzania, Nigeria and Madagascar.

The OVOP programs in these countries are at various developmental stages. For instance, Malawi which started in 2003 is at an advanced level while Ethiopia which started in 2010 is at its infancy. In between we have Countries like Kenya and Nigeria where OVOP has been running for sometime now but are yet to graduate to the level where their products can penetrate the local supply chain.

In all these scenarios, packaging has been identified as the missing link between the OVOP groups and the market. The growing interest of developing Countries and transition economies in adding value to their products demands specialized expert packaging knowledge and skills. This has been further reinforced by the growing participation of Micro Small and Medium Enterprises in international trade which requires that enterprises meet importers demands or completely loose out to their competitors who in most cases are ready to meet the importer's requirements.

This report therefore serves as a guided to the OVOP groups since crucial information that are needed can easily be found here.

By Country, it lists the names of the packaging companies, their contacts, their products and services and the training institutions that can offer packaging related trainings.

2. SOUTH AFRICA

Exports and Imports of Packaging Materials

South Africa packaging exports exceed packaging imports in both volume and value. However, this is not necessarily true for every single sub-industry if each is taken in isolation. In the case of wood packaging, imports exceed exports. This is mainly due to the import barrels for use in the local wine industry. In the case of glass packaging, imports exceed exports mainly due to the use of glass to package imported medicine and cosmetics. In the case of metal packaging, imports exceed exports mainly due to imported products in aerosols.

Exports Profile

- Plastics are the most important packaging group (with around 40% of export market share), and are of increasing importance. Although a wide variety of plastic products are exported, plastic bags dominate.
- Paper exports are second in importance (with around 26% of the market). Paper's share is increasing, with cartons/boxes for packaging the most important product.
- Metal packaging is third in importance (around 17%), with reservoirs the most important product
- Glass and sacks and bags have a relatively small share of the packaging export market, and the exported products are of a mixed nature.

Country of destination of SA packaging exports

- More than 50% of SA packaging exports are to African countries, with Europe the second most important export market. Given the following integration of the Southern African market and the improvements in infrastructural linkage with other African countries, Africa will become an increasing growth market for exports of all categories of packaging materials.
- Apart from wood, all other packaging export categories are dominated by exports to Africa.

- Europe is an important market for exports of wood, and to a lesser extent of plastic packaging.

Import profile

- Plastics dominate imports (with around 50% of the market), and their market share is growing. Bags and accessories are the most important category of plastic packaging exports.
- Wood is the second most imported packaging type, with around 20% of the market. This is mainly composed of casks and barrels for use by the wine industry.
- Metal has the third-largest import share (around 15%). This consists mainly of aerosols.

Comparison of rank order of importance in production, exports and imports

Rank	Production	Exports	Imports
1	paper	plastics	plastics
2	metal	paper	wood
3	plastic	metal	metal

Although plastic is only the third most important type of packaging in local production value, it is the key category as far as export value is concerned. This underlines the growing importance of plastics as the future of packaging. A contribution factor of the popularity of plastic packaging in South Africa is the ready availability of basic chemical raw materials, by-products of the country's huge petrol from coal chemical industry.

Although metal packaging is the second largest category as regards production value, its export value is only third. This is largely due to the huge local consumption of soft drinks in metal packages.

The breakdown per sub-category of exports shows the growing diversification and sophistication of packaging exports. Apart from the basic product in each category, a growing

number of accessories are also exported. This is in line with the move towards more high-tech sophisticated exports.

South Africa is a growing market fro packaging imports, especially at the more sophisticated and high-tech end of the market. This is in line with the general trends in imports shown in graph 4.

Overview of major SA user market/industries using packaging material

Subgroup	plastic (rigid)	plastic (flexible)	wood (14)	paper: solid board	paper: corrugated	sacks/bags: paper	sacks/bags: plastic	sacks/bags: woven (1)	Glass	metal
FOOD										
Fresh Vegetables	xxx(2)	x	x(11)			x		x		
Processed Vegetables		xxx			x(2)					xx
Fresh Fruit		x			xxx			x		
Processed Fruit										
Fruit Juices	xxx	x		x	x(2)				x	x
Liquor	x			x					xxx	x(8)
Soft Drinks	xx	x							xxx	x(8)
Fresh Fish	xxx				x					
Frozen Fish				xxx						
Fresh Meat		x(4)			xx(3)					
Processed Meat		xxx		x						
Oils	xxx								x	
Fats	xxx	xx								
Dairy	xxx	xx		x			x(12)			
Grain		xx				xxx	x	x(5)		
Bakery		xxx								
Fast Foods	xx			xx	x					
AGRI NON FOOD										
Flowers					**xxx**					
MAN. NON FOOD										

Clothing		x		xx	xx					
Shoes, leather products				xx	xx					
Basic Chemicals (7)	xx					xx	xx	xx		xx
Fertiliser: Solid, Liquid	xx						xxx	x		
Pesticides	xx								xx	x
Paint & Varnish	x									xxx
Pharm. & Med. (6)	xx	xx							xx	
Surgical/Med. Supplies		xx		x(9)						
Soaps & Detergents	xx	x		xxx						
Cosmetics	xx								xxx	
Machinery		x	xxx		xx					
Capital Equipment (10)										
Small H/H Equipment					xxx					
Large H/H Equipment					xxx					
TV & Radio										
Jewellery	x			xxx						
Games & Toys				xx	xxx					
Pen, Pencil, Crayons	x	x		x						
Cement					xxx					
Household Coal								xxx		
Face Bricks		x(13)	x(13)							

Explanatory notes:

1. The use of sacks woven from vegetable fibres (jute, hessian etc) is not allowed in SA.
2. All categories include primary and wholesale packaging as well as secondary packaging
3. Export prime cuts (frozen)
4. Retail local
5. Bulk
6. Market split depends on stability and state
7. Market split depends on physical state and quantity

8. Special to SA carbonated beer and soft drinks
9. Imported medical
10. Either no packaging, containerized, or bulk wrapping pallet
11. Wooden crates being phased out or replaced by plastic
12. Bulk milk powder in sacks
13. Stretch-wrapped on a pallet for ease of handling
14. Wood is the base of many transit packs; the pallet is a key component of mechanical handling systems.

2.1 South African packaging materials, containers and components – manufacturing

Company Name	Address
Afripack*	P.O. Box 1287, Durban, 400, Tel: 031 4690381
Afrox*	P.O. Box 4100, Germiston, 1411, Tel: 011 8205725
Alunimium Foil Containers	P.O. Box 1287, Durban, 400, Tel: 031 4690381
Ampalas SA	P.O. Box 8088, Elandsfontein, 1406, Tel: 011 3928300
Astrapak*	P.O. Box 652740, Benmore, 2010, Tel: 011 7845577
Baypac	P.O. Box 2380, North End, 6056, Tel: 041 4842261
Bicher Plastics	Protea Road, Phillipi, 7785, Tel: 021 3717114
Britepak	P.O. Box 276, Isando, 1600, Tel: 011 570800
Canpak	P.O. Box 47, Kya-Sands, 2163, Tel: 011 4746830
Cape Wrappers	P.O. Box 286, Paarl, 7620, Tel: 021 8711210
Cinqplast Plastop	P.O. Box 751962, Gardenview, 2047, Tel: 011 6224540
Columbit Industries	P.O. Box 42737, Cape Town, 8000, Tel: 021 5933161
Consol*	P.O. Box 52, Germiston, 1400, Tel: 011 8740000
Consupaq	P.O. Box 1048, Uhmlanga Rocks, 4320, Tel: 0315692177
Copak	P.O. Box 70023, Braynston, 2021, Tel: 011 8826802
CTP Packaging	P.O. Box 43266, Industria, 2042, Tel: 011 4748750
225 Chrystal pack	P.O. Box 194, Maraisburg, 1700, Tel: 0116735161
Durban Bag*	P.O. Box 12010, Jacobs, 4026, Tel: 031 4651354
Durban Box	9 Henwood Road, Pinetown 3610 Tel: 031 7017200
Dutton Plastics Engineering	P.O. Box 45092, Bracken Gardens, 1452, Tel: 011 617500
EH Walton Packaging	P.O. Box 300, Port Elizabeth, 6000, Tel: 041 5821090

Elopak South Africa	P.O. Box 533, Eppingdust, 7475, Tel: 021 5073000
Flamingo Plastics	P.O. Box 786033, Sandton, 2146, Tel: 011 3925992
Flex O Pack	P.O. Box 37201, Benrose, 2011, Tel: 011 6160618
Future Packaging	P.O. Box 460, Honeydew, 2040, Tel: 011 7943310
Golden Era Group	P.O. Box 2724, Johannesburg, 2000, Tel: 011 8393117
Henkel SA	P Bag 038, Wadeville, 1422, Tel: 011 8644950
Highland Print	P.O. Box 109, Isando, 1600, Tel: 011 9741117
Hilfort Plastics	P.O. Box 430, Sanlamhof, 7532, Tel: 021 9480675
Hulett*	P.O. Box 670, Pietermaritzburg, 3200, Tel: 033 39003481
Isowall Southern Africa	P.O. Box 912581, Silverton, 0127, Tel: 012 8043564
Kaymac Rotomoulders	P.O. Box 317, Pietermaritzburg, 3200, Tel: 033 3872911
Kohler*	P.O. Box 955, Pinetown, 3600, Tel: 031 7024526
Linpac Materials Handling	P.O. Box 6998, Midrand, 1685, Tel: 011 3142110
M&S Plastics	P.O. Box 472, Edenvale, 1610, Tel: 011 6091144
McAuther Packaging	P.O. Box 1689, Jukskei Park 2153, Tel: 011 7061804
MCG Industries	P.O. Box 8009, Elandsfontein, 1406, Tel: 011 3454000
Metapak	P.O. Box 8009, Elandsfontein, 1406, Tel: 011 3454000
Moco Cosmetic packaging	P.O. Box 15773, Doornfontein, 2028, Tel: 011 6243493
Mondipak*	P.O. Box 61101, Marshalltown, 2107, Tel: 011 6385037
Multifoil/Metapak*	P.O. Box 24220, Lansdowne, 7799, Tel: 021 6919944
Nampak*	P.O. Box 784324, Santon, 2146, Tel: 011 7196479
Pak 2000	P.O. Box 2164, New Germany, 3620, Tel: 031 7090714
Plaslope	P.O. Box 1309, Edenvale, 1610, Tel: 011 4521115
Plastafrica	P.O. Box 39601, Bramley, 2018, Tel: 011 8870403
Plastall Gundle*	P.O. Box 746, Germiston, 1400, Tel: 011 8738730
Platex	P.O. Box 282, Paarl, Tel: 011 86226100
Polybags	P.O. Box 2422, Halfway House, 1685, Tel: 011 8050567
Polyflex*	P.O. Box 1911, Pinetown, 3600, Tel: 031 7010211
Polyak	P.O. Box 125, Plumstead, 7800, Tel: 021 7109200
Precision Valve SA	P.O. Box 911092, Rosslyn, 0200, Tel: 012 5413340
Progressive Packaging	P.O. Box 890653, Lyndhurst, 2106, Tel: 011 8821416
Puregas	P.O. Box 123884, Alrode, 1451, Tel: 011 9081618
Pyrotec	P.O. Box 16393, Vlarberg, 8018, Tel: 021 5118135
Q-Pet	P.O. Box 47, Kya Sands, 2163, Tel: 011 4746830
Raflatac SA	P.O. Box 1494, Pinetown, 3600, Tel: 031 7101750

Ronchele Tech Moulding	P.O. Box 1166, Boksburg, 1460, Tel: 011 9141010
Rosside Labels & Press	P.O. Box 33097, Jeppestoan, 2043, Tel: 011 6182190
S & G Print & Carton	P Bag 54, Moben, 4060, Tel: 031 4622336
3 M South Africa*	P.O. Box 926, Isando, 1600, Tel: 0116743066
SA Polythene Bag Industries	P.O. Box 5218, Johannesburg, 2000, Tel: 011 3343450
Saflite packaging	P.O. Box 43844, Fish Hoek, 7975, Tel: 021 7055882
Sealed Air Africa*	P.O. Box 2256, Kempton Park, 1620, Tel: 011 9234600
Tag & Label SA	P.O. Box 679, Ferndale, 2160, Tel: 011 7931244
Taurus paper products	P.O. Box 162, Mandini, 4490, Tel: 032 4592254
Terbo Plastics	P.O. Box 1127, Randfontein, 1760, Tel: 011 7691347
Thermopac	P.O. Box 68, Elsies River, 7480, Tel: 021 5921100
Transpaco	P.O. Box1308, Johannesburg, 2000, Tel: 011 4935220
Trespaphan SA	P.O. Box 71, Krugersdorp, 1740, Tel: 0117617500
Trister Plastics	P.O. Box 1593, South Dale, 2135, Tel: 011 4942103
Ultrapack	P.O. Box 1082, Isando, 1600, Tel: 011 9741531
Van Leer SA*	P.O. Box 7164, Johannesburg, 2000, Tel: 011 6437131
Wave Paper	P.O. Box 51154, Musgrave Road, 4062, Tel: 031 7053344
Xac Pet	P.O. Box 14093, Wadeville, 1422, Tel: 011 8276838

Companies involved in multiple packaging activities via different companies

Source: The Buyers Guide 2002/03. National Publishing (Pty) Ltd

2.3 Product Profile per Manufacturer

Adhesives

- Hot melt: Henkel SA
- Solvent-borne: Henkel SA
- Waterborne: Henkel SA

Aerosol Containers

- Caps: Dutton Plastics Engineering; Ronchele Tech Moulding
- Valves: Precision valve SA
- Propellants: Afrox Special Gasses; Pure gas

- Glass: Consol Special Glass
- Metal: Nampak Divpac

Aluminium

- Closure sheet: Hullet Aluminium; Nampak Rotaflex
- Foil Aluminium Foil Containers; Hulett Aluminium; Nampak Rotaflex
- Containers: Aluminium Foil Containers; Hulet Containers

Bags

- Air: Sealed Air Africa
- Anti-static: Multifoil/Metapak; Plastic Gundle; Platex; Sealed Air Africa; Transpaco pack
- Automatic opening: Copak; Progressive Packaging
- Baler: Astrapak; Durban Bag: Multifoil/Metapak
- Cellulose: Columbit Industries
- Cushioned: Sealed Air Africa
- Dispensing: Progressive Packaging; SA Polythene Bag Industries
- Drum liner: Astrapak; Durban Bag; Multifoil Metapak
- Insulated: Multifoil/Metapak
- Controlled atmosphere: polyflex, Sealed Air Africa
- Multiwall, open mouth: Afripak; Durban Bag; Nampak; Taurus Paper products
- Multiwall, valve: Afripak; Durban bag; Nampak; Taurus paper products
- Paper: Afripak Golden Era Group Plastic: Astrapak; Durban Bag; Nampak
- Recloseable: Astrapak; Kohler
- Taped: Polyflex; Sealed Air Africa

Blow-Moulded Containers

Astrapak; Baypac; Bicher Plastics; Consupac: M & M Plastics

Glass Bottles

Consol Glass

Plastic bottles

Consol plastics; Consupac, Flamingo plastics; Hilfort plastics; Nampack; Pak 2000; Polyoak

Corrugated boxes

Copak; Durban Box; Mondipak; Nampak

Bulk container disposable liners

Nampak; Polybags

Cans

- Decorative metal cans; Nampak
- Tinplate steel cans: Canpak; Nampak

Cartons

- Agricultural cartons: Mondipak; Nampak
- Dispensing cartons: Golden Era Group; Kohler; Nampak
- Folding Cartons: Britpak
- Frozen food cartons: Kohler
- Liquid packaging cartons: Kohler; Nampak
- Waxed/plastic – coated cartons: CTP packaging; Golden Era Group; Kohler; Nampak; S & G Print & Carton

Closures

- Continuous thread closures: 225 Chrystal pack; Bichler Plastics; Cinqplast Plastop
- Decorative: Nampak
- Dispensing: Bichler Plastics; Cinqplast-Plastop; Consol; Consupaq; Dutton Plastics Engineering; MCG Industries; Nampak; Polyoak

- Roll-on: MCG Industries
- Tamper indicating: Cinqplast-Plastop; Consol; Dutton Plastics Engineering; MCG Industries; Nampak; Polyoak; Ultrapack
- Glass: Consol
- Plastic: 225 Chrystal Pack: Clinqplast-Plastop; Consol; Cosupaq; Flamingo Plastics; Nampak; Polyoak; Q-Pet

Cosmetic Packaging

Bichler Plastics; Consupaq; Flamingo Plastics

Crates

Linpac Materials Handling; MCG Industries; Nampak

Polyester foam cushioning

Isowall Southern Africa; Saflite Packaging

Drums

- Glavanised: Greif SA
- Rigid Plastic: Nampak; Greif SA

Films

- Embossed: Astrapak; Kohler
- Extrusion coated: cape wrappers; Nampak
- Heat-shrinkable polyolefin: Astrapak
- Medical multilayer: Astrapak; Polyflex; Sealed Air Africa
- Multilayer laminated: Astrapak; Cape Wrappers; Kohler; Nampak
- Plastic: Astrapak; Kohler; Nampak
- Polyethylene: Astrapak; Cape Wrappers; Consol; Durban Bag; Flex O Pack; Nampak
- Shrink/stretch: Astrapak; Durban Bag

Flexible Packaging

Astrapak: Cape Wrappers; Durban Bag; Flex O Pack; Kohler

Containers

- Injection-moulded: 225 Chrystal Pack; Astrapak; Consupaq; Flamingo Plastics; Kohler
- Intermediate bulk: Kaymac Rotamoulders; Nampak; Wave paper

Jars

Glass: Consol

Plastic: 225 Chrystal Pack: Cinqplast-Plastop; Consol; Consupaq; Flamingo Plastics; Moco Cosmetic packaging; Nampak; Polyoak

Labels

- Plain Paper: Britepak; CTP Packaging; Golden Era group; Highland Print; Kohler; Nampak; S & G, Print & Carton
- Printed: Astrapak; Golden Era Group; Highland Print; Kohler; Nampak; S & G Print & Carton, Tag & Label SA
- Self-adhesive: Golden Era Group; Tag & Label SA
- Stretch, sleeve: Astrapak; Plastall Gundle

Plastic Pallets

Kaymac Rotamoulders; Nampak

Paper

- Vacuum metalised: Metapak
- Waxed: Astrapak

Plastic Sheet

Ampaglas SA; Astrapak; Consol; Nampak; Plastall Gundle

Pouches

3-side seal, laminated: Astrapak; Nampak; Sealed Air Africa

Stand-up: Kohler

Vacuum: Astrapak; Nampak; Sealed Air Africa

Trays

- Paperboard: CTP Packaging; Golden Era Group; Highland Print; S & G Print & Carton
- Plastic: Consol

Tubes

Sausage casings: Columbit Industries

Fibres: Enviropack

Laminated: Kohler

Plastic: Cinqplast-Plastop; Kohler

South African Packaging Exports per continent of destination (value %)												
	Paper '01	**Paper '02**	**Plastic '01**	**Plastic '02**	**Metal '01**	**Metal '02**	**Glass '01**	**Glass '02**	**Wood '01**	**Wood '02**	**Sacks'01**	**Sacks '02**
Africa	78.3	82	56.4	57.3	35.6	70.4	92.1	92.8	5	13.1	66.3	80
Europe	9	7.7	29	23.3	48.6	15.3	6.4	5.2	84.4	75.5	4.9	3.5
Americans	7.4	4.3	8.4	12.1	2.8	3.8	1.2	1.7	10.2	10.4	12.6	9.6
Asia	5.3	6	6.2	7.3	13	10.5	0.3	0.3	0.4	1	16.2	6.9
	100	100	100	100	100	100	100	100	100	100	100	100

2.4 OTHER USEFUL INFORMATION

Key support institutions

Education and training

Institutions

The Cross Media Training Centre (CMTC) is a self-sustainable, one-stop training centre with classrooms, fitten out workshops, and dormitory facilities, all accredited with MAPPSETA. CMTC focusses on all technical training for the industry. It is located at 1050 Printech Avenue, Honeydew, Johannesburg, CMTC's telephone number is 011 7943810.

The Institute of Packaging focusses on advancing standards and methods of education in packaging, knowledge exchange, and selected technical short courses.

Standards

The South African Bureau of Standards (SABS) is the national government body responsible for setting up standards, carrying out laboratory and allied testing, and accrediting products with the SABS mark of quality.

3. TANZANIA

Cultural and economic background

The united Republic of Tanzania is located in the Eastern African Continent between longitude 29^{o} and 41^{o} East and Latitude 1^{o} and 12^{o} South.

Packaging

Tanzania Exports packaging products to other African countries, EU countries, America, Asia and Austria

3.1 BASIC INFORMATION ON PACKAGING

General Assessment

The package manufacturing industry is considered a supporting industry, that is, manufacturers of packages are subcontractors for producers or sellers of consumer products. The main packaging materials being used in Tanzania are paper, metal and glass. Other materials such as wood and Jute, play no significant part in the package manufacturing industry since "package manufacturer" means, at the basis, converting raw materials into packaging forms.

Packaging industries have several functions to fulfill, namely protecting, preserving, transporting and marketing products, as well as providing product information. Quality of a product depends significantly on good packaging. In addition to performing these functions, packaging also has to adhere to further demands in the form of logistical requirements, legislation, environmental, considerations and safety requirements.

Classification of Packaging Industry

Basing on material used, the packaging industry in Tanzania can be divided into four main segments.

Paper and board packaging

- Metal packaging

- ☞ Glass packaging
- ☞ Plastic packaging

Paper and Board Packaging

Main Users

Companies using paper and Board packaging are considered small industries and their products are largely consumed domestically. Information in table 4 summarizes major industries which utilize paper and board packaging in Tanzania.

3.2 Main users of Paper and Board Packaging

S/N	Company	Type of business
1	Tanzania Cigarette Co. Ltd.	Cigarette, pipe tobacco, cut rag
2	Unilever Tanzania Ltd	Cooking fats, margarine, cosmetics and soaps
3	Tanzania Tea Blenders (2002) Ltd	Tea parkers
4	Bidco (T) Ltd	Manufacturers of laundry soaps, edible fats and edible oils

Main Producers

Producers of paper and board packaging are categorized into printing, molded pulp, as well as corrugated and paper board boxes.

Printing papers

There about fourteen manufacturers of coated paper, cardboard and other printing paper. These include TLL Printing and Packaging, Tanzania Printers Ltd, Chemi & Cotex Industries and Tanzania Printers and Stationary Ltd (TPS). Demand for printing paper depends on local economy, population growth and expansion of education.

The following companies are the main producers of printing paper:

- Transpaper (T) Ltd
- Modern Paper Converters Ltd

- Tanzania Printers and Stationary Ltd.

Moulded Pulp

Moulded Pulp is an environment friendly form of packaging for it is made from recycled waste paper and cardboard.

Southern Paper Mills Co. Ltd (SPM-Mwongololo) is the company which produces moulded Pupl in Tanzania.

Corrugated Boxes

There are about eight major producers of corrugated boxes; these are Tanzania Printers, Ltd, Chemi and Cotes Industries, TLL Printing and Pckaging, and Modern Paper Converters. Others are Jiemel Industries Ltd, Commercial Printing and Packaging Ltd and Twiga Paper Products.

Paperboard Boxes

Paperboard boxes is another packaging material produced in Tanzania. Key producers of this packaging material are Twiga Paper Products Ltd, TLL Printing Packaging, Chemi and Cotex Industries and Transpaper (T) Ltd.

3.3 Metal Packaging

Main Applications

Metallic containers whether made of steel or aluminium, are difficult and expensive to transport when empty, hence, there production must be in the proximity to the point of utilization. For this reason, most of Africa countries, Tanzania included has at least one fixed metallic container plant.

The CMB (T) Ltd operates the only significant packaging plant in the country. Its commercial and manufacturing policies, however, are largely dictated by the continent-wide interests of Nampak, the largest South Africa Packaging Company. About 80% of the Tanzania plant output takes the form 'Crown corks' –metal closures for beer and soft drink bottles-which are easily transportable and are distributed throughout East and Central Africa.

CMB (T) Ltd makes relatively small quantities of 'three-piece' food cans for the local processed food industries and a little of this output is exported to neighboring counties. Metal and cans found in Tanzania are of international quality, though the country has few export products suited to these type of packaging.

Main User Companies

In Tanzania, companies using metal packaging are numerous as summarized in table below

Companies using Metal Packaging

S/N	Company	Type of business
1	Coca-Cola Kwanza Ltd	Soda
2	Gold Star Paints Tanzania Ltd	Paints
3	Promasidor (T) PTY Ltd	Milk (Dried) skimmed)
4	Nyanza Bottling Co. Ltd (a Sumaria Group	Soft drink, coca cola brand
5	Sadolin Paints Ltd	Paints
6	Tanzania Distilleries Ltd	Spirit
7	Tanzania Meat Products (2002) Ltd (TANMEAT)	Processed meat products
8	Serengeti Breweries Ltd	Beer
9	Tanzania Breweries Ltd	Beer
10	Tanganyika Instant Coffee	Coffee
11	Mutsushita Electric Company Ltd	Dry cells and Batteries
12	Zanzibar Bottlers	Soft drinks (carbonated)
13	SBC Tanzania Ltd	Soda (Pepsi brand)
14	GFP Comapy Ltd	Butter, honey and honey
15	Noble Distilleries Ltd	Alcoholic, Beverage
16	Alpha Krust Ltd	Processed fish
17	Berger Paints (T) Ltd	Decorate paints

Main producers

Main local producers of metal packages are CMB (T) Ltd, currently known as Nampack (T) Ltd, Metal Crown (T) Ltd, and Metal Products Co. Ltd.

Availability of Raw Materials

Raw materials for making cans and metal crown corks are mainly imported from Japan and South Africa.

3.4 Glass Packaging

Main Applications

Kioo Limited is the only packaging company in Tanzania. The main products of the glass industry are bottles and jars. Bottles are mainly used to package:

- Whiskey, beer and other alcoholic drinks
- Medicines
- Carbonated soft drinks
- Fruit juice and other liquids
- Others

Main User Companies

Naturally, major users of glass bottles are Pharmaceutical, beverages and alcoholic and alcoholic drinks manufacturers. Food processing industries use mainly glass jars (table 18).

Main Producers

Two main companies dominate the market of glass packaging and these are Kioo Ltd and Insignia Ltd.

Packaging Specifications

Local specifications relating to glass packaging:

- TZS 817:2004 Packaging-Glass beer bottles-Specification

Availability of Raw Materials

The raw materials for making glass are silica sand, feldspar, limestone, dolomite, soda ash, selenium and cobalt. Most of the materials are available locally.

3.5 Plastic and Composite Packaging

Main Applications

Plastic are versatile materials and are in many cases capable of matching or surpassing the characteristics of other types of packaging. They are light weight and open to a wide range of design and decoration possibilities. They have an excellent image hygiene-wise and are used widely in food packaging. There a various types of plastic packaging products available. |In the flexible form, products include plastic film, bags and woven sacks. Gravure printing can be on flexible film. In the more rigid form, products include plastic bottles and cups, all of which can be produced locally using moulds.

Plastic packaging is used in food and non-food industries, including the vegetable oil, chemical, fertilizer and cosmetic industries.

PET bottles, example of rigid-form products, are used for beverages, mineral water, vegetable oil and cosmetics. The PET bottle has great potential as a substitute for the glass bottle.

Main producers

Producers of plastic packaging are categorized depending on the type of plastic they produce; these categories are flexible plastic packaging and laminate film, rigid plastic packaging and woven plastic sacks.

3.6 Flexible Plastic Packaging and laminate film

Rigid Plastic Packaging

Producers of rigid plastic packaging are Chemi and Cotex Industries Ltd, Simba plastic, A one products and bottles ltd, IPP (Bonite Bottlers), Aldi investment (T) Ltd, Bin Fijaa industries, Commercial printing and packaging Ltd, and Euro printing and packaging Ltd.

Others producers of rigid plastic packaging are Industries packaging Ltd, Pee-pee (T) Ltd, Raffia bags (T) Ktd, Quality plastics Ltd, Suchach Plastics, MAG Group Ltd and Saafa PET Bottles Manufacturers.

Woven Plastic Sacks

Woven plastic sacks, usually made from PE and PP, are used for cement, fertilizers, sugar, rice and beans and support of five to 1,500 kg.
Producers of these sacks are Raffia Bags (T) Ltd and Pee Pee (T) Ltd.

Jute sisal Packaging

This type of packaging is mostly used as transport packaging

Main user

Companies mainly using jute and sisal packaging are as shown it table below.

Main producers

Companies producing jute and sisal packaging are IPS Tanzaania Ltd, Kibo Group Ltd, Mohamed Enterprises (T) Ltd, TBC (1998) Ltd and Tanzania Packages Manufacturers

3.7 Wood Packaging

Wood Packaging is also mostly used as transport packaging

Main producers

Hans Industries Ltd enjoys the monopoly of the market for wood packaging. However, many companies make their own packages within the company rather than procure or outsource the service.

The major paper and board converters are well equipped to produce good-quality printed packaging for a big number or Tanzania customers such as Uniliver Tanzania Ltd and Kibo Match Group Co. Ltd.

The major paper and producers print and convert intermediate paper and board qualities for smaller companies which supply low-priced markets so that to minimize their packaging expenditures. There is a wide variation in the presentation and the quality of paperboard packaging and labeling on the Tanzania market. However, many products use corrugated boxes as transport packaging.

Metal Packaging

The 80% of the Tanzania plant output takes the form of 'crown corks'- metal clodures for beer and soft drink bottles. These are easily transported and are distributed throughout East and Central Africa. Also, CMB makes 'three-piece' food cans for the local processed food industries and some of this output is exported to neighboring countries. The latest technology 'two-pieces' cans for beer and soft drinks are imported from CMB's Parent Company, Nampak in South Africa.

Glass Packaging

Kioo Company Ltd is a major producer of glass packaging in Tanzania. The glass packaging production at Kioo Ltd meet the needs for both the local and external market.

Tanzania produced-empty glass bottles are sold as far as South Africa Zimbabwe because of advantageous exchange rates and Kioo's competitive production facilities. Glass packaging is therefore a viable option for Tanzania exporters.

One problem for glass market is the competition from the PET bottles.

Plastic Packaging

Plastic packaging had the highest growth rate in consumption, indicating a bright trend for plastic packaging industries in the future. In many cases plastic packages offer a good alternative, both in price and quality. The most used plastic packaging is rigid containers such as bottles, jugs and cups, and flexible sacks and bags.

Tanzania have a number of blow moulders producing quality film bags, but the market is dominated by two large conglomerates, Simba Plastics Co. Ltd and Chemi and Cotex Industries (C&C). Both these companies have extensive interests outside the Packaging field and are closely linked with other plastics companies in East Africa, the Middle East and India.

The single-material plastic films are produced for local use, while the multi-layer barrier films used for export of perishable horticultural products and spices are imported from India, Kenya and the Middle East.

3.8 OTHER USEFUL INFORMATION

Technical Support and Major Packaging Education/Training Institutions

Packaging Technology Centre (PTC), Tanzania Bureau of Standards

In its efforts to support and promote packaging and materials in the country, the government, established Packaging Technology Centre, which is located at the TBS premises.

The PTC has the following duties:

- Testing packages and packaging materials to ensure quality;
- Training in packaging education-in structural and graphical design packaging;
- Certification of packaging materials and packages to acceptable established standards; and
- Acting as data of information on packaging standards, requirements and technology.

The Tanzania Packaging Association

In 1990s, BET was instrumental, with TBS, in creation of a Tanzania Packaging Association (PATA), but interest in PATA has apparently faded with ending of most donor technical assistance in Packaging and the Privatization of the packaging companies. Private sector bodies such as the Tanzania Exporters Association (TAPEX), the horticultural product and flower's association, and other many have had interest in the development of TAPA.

However, the effort is now being made by the government to re-establish the Packaging Association of Tanzania.

Tanzania Bureau of Standards (TBS)

The internationally recognized Tanzania Bureau of Standards is the only National Standards Body of Tanzania. TBS is charged with promotion of standardization in industry and commerce and safeguard the health and safety of the people.

Packaging and Exportation Consultants and Consulting Firms

Board of External Trade (BET)

Tanzania Bureau of Standards (TBS)

3.9 LIST OF PACKAGING MANUFACTURERS

Paper and Paper Board Packaging

Name and Address	Sector	Products
Commercial Printing and Packaging II P. O. Box 498 Nyerere Road Dar es Salaam Tel: +255 22 2852214 Fax: +255 22 2862136	Paper, Paper products, Packaging and Printing	Corrugated Boxes, Inner Packets Labels, printing of stationary
Euro Printing and Packaging Ltd P. O. Box 58 , Dar es Salaam Tel: +255 22 2772618/2772654 Fax: +255 22 2772638 sil@raha.com	Paper, Paper products Packaging and Printing	Envelops, Stationeries Packaging and Printing
Garments Manufacturers Ltd P. O. Box 2358 Plot 62, Migeyo Road, Chang'ombe Dar es Salaam Tel: +255 22 2863043, 2862262 Fax: +255 22 2863304 Email: gml@acenet.com	Paper, Paper products, Packaging and Printing	Corrugated Carton Boxes
IPP Ltd P. O. Box 163 Ali Hassan Mmwinyi/Upanga Street Dar es Salaam Tel: 255 22 2119349,2119354,2119370 Fax: 255 22 2119360 Email: Hq@ipp.co.tz	Paper, Paper products Packaging and Printing	Media Services, Manufacturing of soft drinks, water, PET Bottles
Jamana Printers Ltd Box 5584 Nyerere Road Dar es Salaam Tel: 255 22 2861400 Fax: 255 22 2862720 jamana@jamanaprinters.com	Paper, Paper products Packaging and Printing	Printing and Packaging
Jamiel Industries Ltd P. O. Box 2044,	Paper, Paper products Packaging and Printing	Manufacturers of Corrugated carton boxes

Mandera, Dar es Salaam Tel: +255 22 2863043 Fax: +255 22 2863304 gml@acexnet.com		
Maxon Paper Converters Ltd P. O. Box 20444, Mandela, Dar es Sallam Tel: 255 22 2450383-4, 2451082 Fax: 255 22 2450624 maxons@cats-net.com	Paper, Paper products, Packaging and Printing	Envelopes, plain stationeries and printing

Name and Address	**Sector**	**Products**
Modern Paper Converters Ltd P. O. Box 9958, Dar es Salaam Tel: +255 22 2126584 Fax: +255 22 2126577 mpaper@raha.com	Paper, Paper products, Packaging and Printing	Corrugated cartons printing and lamination
Paper Products (T) Ltd P. O. Box 9422 Vingunguti Industrial Area Dar es Salaam Tel: +255 22 2864864 Fax: +255 22 2862806 Paperproducts@afsat.com	Paper, Paper products Packaging and Printing	Corrugated Cartons (outers), Folding Cartons (inners), Labels, Posters, Envelopes, Paper and Wrapping paper
Tanpack Tissues Ltd Mikocheni B (Near ITV) Dar es Salaam Tel: +255 22 2700163, 2773901-3 Fax: +255 22 2700890 tanpack@cats-net.com	Paper, Paper products, Packaging and Printing	Paper serviettes velvex brand, Kraft paper, cover paper, Bag Kraft, Wrapping paper
Tanzania Printers and Stationers Ltd P. O. Box 6666 Nyerere Road, Dar es Salaam Tel: +255 222865682 Fax: +255 22 2865669 tanzam@email.com	Paper, Paper products Packaging and Printing	Manufacturers of exercise books, printing paper, paper converters

Tanzania Printers Ltd P. O. Box 451 Mbozi Road Dar es Salaam Tel: +255 22 2866776-79 Faz: +255 22 2866775 tp@raha.com	Paper, Paper products Packaging and Printing	Commercial Printing, Paper distributors, Packaging and Stationary
TLL Printing and Packaging Ltd P. O. Box 2557 Mbozi Road Dar es Salaam Tel: 255 22 2865282, 2863017,2864196 Fax: 255 22 28565283 tllppl@afsat.com	Paper, Paper products Packaging and Printing	Corrugated Cartons, Inner Boxes, Multiwall sacks, labels, stickers and other packaging materials
Transpaper (T) Ltd P. O. Box 4564830 Sinza Road Dar es Slaam	Paper, Paper products, Packaging and Printing	Paper and Paperboards, printing ink, graphic art material
Twiga Paper Products Ltd P. O. Box 2019258 Chuma Road, Chang'ombe Industrial Area Dar es Salaam Tel: +255 22 863354, 864862 Fascimile (051) -864861	Paper, paper products, Packaging and Printing	Corrugated Cartons Folding Cartons (Inners), Paper and Board printing.

Name and Address	**Sector**	**Products**
A-One Products and Botles Ltd P. O. Box 22196 Kiwalani Industrial area Dar es Salaam Tel: +255 22 2118930-1, 2115003 Fax: 255 2113183, 2112694 rafic@metl.net	Food, Beverage & Tobacco	PET bottle, pure drinking water, Juices
Bin Fijaa Industries Ltd P. O. Box 5115 Nyerere Road, Plot No. 26/1 Dar es Salaam Tel: 255 22 2184808/2860147	Chemical, Petroleum, Coal, Rubber, Plastic Products	Plastic bags and related products

Fax: +255 22 2184807 kariokoobazaa@rha.com		
Chemi & Cotex Industries Ltd P. O. Box 347 Mbezi industrial Area Bagamoyo Road Dar es Salaam Tel: +255 22 2628014-8 Fax: +255 22 2323121, 2627637 sect@cotex.icstz.com	Chemical, Petroleum, Coal, Rubber, Plastic products	Polytanks, plastic crates, water pails, jerry cans and dental care products
PI Simba Ltd. P. O. Box 2957 Chang'ombe Industrial Area Sa res Salaam Tel: +255 22 2864555, 28627637 Fax: +255 22 286401 dsl@sumarriagroup.com	Chemical, petroleum, Coal, Rubber, Plastic products	Manufacturers of plastic products, pipes, PVC&hdpe, water Tanks
Enviro PET Ltd P. O. Box 7075 Chang'ombe Industrial Area Dar es Salaam Tel: +255 22 2650371-73 Fax: +255 22 265 0375	Chemical Chemical, petroleum, Coal, Rubber, Plastic products	Recycled plastics
Industrial packaging Limited P. O. Box 40936 Nelson Mandela Road Dar es Salaam Tel: +255 22 2850044 Fax: +255 22 2850044 ipl@raha.com	Chemical, petroleum, Coal, Rubber, Plastic products	Plastic bags, camer bags and printed bags
Morogoro Packaging Limited P. O. Box 195 Morongo Plot 8-12 Morogoro Tel: +255 23 3569/3907/2603165 Fax: +255 23 3203 bhl@morogoro.net Bhl@intafrica.com	Chemical, petroleum, Coal, Rubber, Plastic products	Plastic bags, recycling plastic waste, plastic sheeting, printing packaging materials, plastic shrink packaging materials
Pee Pee (T) Ltd P. O. Box 34 Kange Industrial Area Tanga	Chemical, petroleum, Coal, Rubber, Plastic	Polypropylene bags, pp laminated sheet and cement

Tel: +255 27 2646853-4 Fax: +255 27 2646882	products	sacks

Name and Address	**Sector**	**Products**
Quality Plastics Ltd P. O. Box 21129 Dar es Salaam Tel: +255 22 2152396-97 Fax: +255 22 2152080 qfl@raha.com	Chemical, Petroleum, Coal, Rubber, Plastic products	Manufacturing injection moulding, buckets, household items and packaging products
Raffia Bags (T) Ltd P. O. Box 7075 Bangamoyo Road Dar es Salaam Tel: +255 22 2650371 Fax: +255 22 2650375, 2864640 raffia@intafrica.com	Chemical, Petroleum, Coal, Rubber, Plastic products	PP bags and cement bags
Saafa Pet Bottle manufacturers Ltd. P. O. Box 22345 Plot No. 2 Buguruni Dar es Salaam Tel: +255 22 2863286 Fax: +255 22 2136581 yusuf@saaf.a.net	Food, Beverage & Tobacco	PET Bottles, Mineral water and juice Manufacturers
Simba Plastic Co. Ltd. P. O. Box 2459 Chang'ombe Dar es Salaam Tel: +255 222863651-2 Fax: +255 22 2864926 jane@sumriagroup.com	Chemical, Petroleum, Coal, Rubber, Plastic products	Manufacturer of plastic products, pipes, PVC& hdpe, Rigid Containers, water Tanks, crates, cool Box, coca-cola kiosk
Tridea Cosmetics Ltd P. O. Box 77914 Uhuru Street Plot No. 3 Dar es Salaam Tel: +255 22 2184620 Fax: +255 22 2182551 info@trideacosmetics.com	Chemical, Petroleum, Coal, Rubber, Plastic products	Plastic packaging, Cosmetics and toileteries

Unoplast (T) Ltd P. O. Box 2545 Nyerere Road Dar es Salaam Tel: +255 22 2863548, 2864084 Fax: + 255 22 2865992 unoplast@raha.com	Chemical, Petroleum, Coal, Rubber, Plastic products	Paint plastic containers, plastic sheet and Tubing polybags, carrier bags, Tin cans
Villa Plast Ltd P. O. Box 7283 Lybya Street Dar es Salaam Tel: +255 22 2128568 Fax: +255 22 2137010 Ali.fawa@okplast.info	Chemical, Petroleum, Coal, Rubber, Plastic products	Plastic Pallets, Copper, Zinc/Lead Bronze, Stainless

Name and Address	**Sector**	**Products**
Amboni plantations Ltd P. O. Box 5023 Tanga Tel: +255 27 2646795 Fax: +255 27 2647660 amboni@kaributanga.com	Textiles, Wearing Apparel, Leather,printing and packaging	Sisal fibres, sisal spun product, Export forwarding Services
Anisha Sawmill (1998) Ltd P. O. Box 5240 Chuma Road Chang'ombe Dar es Salaam Tel: +255 22 2865062, 2863676 Fax: +255 22 2863953 anisha@raha.com	Wood processing and products	Muhutu timber, mtundu timber, other timber
Calico Textile Industries Ltd P. O. Box 9021 Nyerere Road Dar es Salaam Tel: +255 22 2862919, 2862935-6 Fax: +255 22 2862977, 2862935 calico@raha.com	Textiles, Wearing Apparel, Leather,printing and packaging	Yard dyed cotton and cotton blended textiles
New Tabora Textile Mills Ltd	Textile, Wearing Apparel	Yarn spinning

P. O. Box 6461 Tabora	and Leather	
Sandali Wood Industries Ltd P.O. Box 5093 Gofu Chini Tanga Tel: +255 22 2643620 Fax: + 255 22 2646318 shaline@kaributanga.com	Wood processing products	Wood processors
Uzri Bora (T) Ltd. P. O. Box 8363 Ubongo Industrial Area Dar es Salaam Tel: +255 22 2448821 Fax: +255 22 2116730 uzibora@yahoo.com	Textiles, Wearing Apparel and Leather	Manufacturers of sewing threads
Hans Industries ltd P. O. Box 1131 Njiiro Arusha Tel: +255 27 2507702,2548706 Fax: +255 27 2506729 handfibre@habari.co.tz	Basic metal Industries	Manufacturers of Hot rolled, products of Steel, Flat bars and Section, Timber Products hardboards, and Wood Products
Kibo Match Group Ltd P. O. Box 416 Moshi Kilimanjaro Tel: +255 27 2754221-3 Fax: +255 27 2752020	Chemical, Petroleum, Coal, Rubber, Plastic products	Safety matches, paper products, sisal pulp and sisal fibres.

Name and Address	**Sector**	**Products**
Mohammed Enterprises (T) Ltd P. O. Box 20660 Morogoro/India Gandhi Street Dar es Salaam Tel: 255 22 2118930-1,2131355,2112756 Fax: +255 22 2113183, 2112694	Food, Beverages & Tobacco	Sisal Bags, Drinking water, wheat, maize flour, Textiles, Cooking oil, PET Bottles.

rafic@metl.net		
Nadra Engineering Works ltd P. O. Box 304 Moshi Tel: +255 25 52751542 Fax: +255 27 50575 Email: nandra@kicheko.com	Food and agricultural equipment	Grain storage tanks, wood burners and agricultural equipments
TPM (1998) Ltd P. O. Box 20660 Dar es Salaam Tel: +255 22 211890-31,2121866,2112676 Fax: 255 22 2113183, 2112694 Rafic.met@icstz.com	Textiles, Wearing Apparel and Leather	Manufacturing of sisal Bags

Glass Packaging

Name and Address	Sector	Products
Kioo Ltd P. O. Box 9273 Dar Es Salaam Manufacturer of glass containers Tel: +255 22 2860190-4 Fax: + 255 22 2865086 kioo@twiga.com	Non-metallic Mineral products	Manufacturers of Glass containers

Metal Packaging

Name and Address	Sector	Products
Metal Crowns (Tanzania) Ltd P. O. Box 15232 Sombetini, Oljoro Road 'BB'- Kilimanjaro Arusha Tel: +255 27 25015665-6 Fax: +255 27 2501567	Fabricated products Machinery and Equipment	Metal crown corks

mcrowns@habari.co.tz		
Nampack (T) Ltd P. O. Box 618 Nyerere Road Dar es Salaam Tel: +255 22 2864251/2/3/4 Fax: + 255 2863853 www.nampak.com	Fabricated metal products, Machinery and Equipment	Manufacturer of metal crowns, food cans, oil cans, paint cans, battery jackets and debe 18/20 litres

Designing and Printing

Name and Address	**Sector**	**Products**
Aldi Investments (T) Ltd P.O. Box 10211 Arusha Tel: +255 27 2544274 kwik@cyber.co.tz	Designing and Printing	Printing, Photo Lab and packaging
Desktop Printing Ltd P. O. Box 20936 Old Bangamoyo Road Dar es Salaam Tel: +255 22 2772802-4 Fax: +255 22 2772807 hanif@dtptz.com	Designing and Printing	Designing, Printing Graphic design training, ID cards.

CONTACT DETAILS OF OTHER ORGANIZATIONS

RELEVANT TO PACKAGING AGENCIES

ORGANIZATION	Address	Telephone	Fax	Website and or Email
Uniliver of Dar es Salaam	P. O. Box 35091 Dar es Salaam	+255 (022) 24105009	+255 2410078/2410514	www.udsm.ac.tz
Desktop Production Ltd	P. O. Box 209 Old Bagamoyo Rd. Oilcom Building, Opp, TMJ Hospital DSM	+255 22 2772802-4	+255 22 2772807	hanif@dtptz.com
Creative Printers	P. O. Box 71644 International House 3rd Floor Garden Avenue DSM	+255 22 2865875	+255 22 2865875	creative@yahoo.com
Perfect Printers ltd	P. O. Box 1487 Arusha, Plot No. 240	+255 27 2507249	+255 27 2504041	perfectatu@yahoo.com
Multi-Colour Printers	P. O. Box 4040 Zanzibar, Plot No. 147 Gizenga ZANZIBAR	+255 24 2231955	+255 24 2232540	mcp@zanlink.com
Quinma Ltd	PPF House 8th Floor P. O. Box 2549, DSM	+255 22 2123048, 2117695-5		Quinma@simba.net
Tanzania Road Haulage (1980) Ltd	P. O. Box 9661 Chang'ombe DSM	+255 22 2133666, 2115260, 2132464	+255 22 2112585	trh1980@raha.com
Tanzania Printing	P. O. Box 7125	+255 22	+255 22 2865099	

Services	DSM	2860050-1-2		
Trinity Consultants Ltd	P. O. Box 7125 DSM	+255 22 2780238	+255 22 2780244	interfinas@catsnet.com
DGP Management Ltd	P. O. Box 1314 Kiwanja Street DSM	+255 22 2112128/2125 5971/2135916	+255 22 2122300	Dgp-co@raha.com
Forwardair Ltd	P. O. Box 79988 City Bank Building DSM	+255 22 2124999	+255 22 2134222	ops@fowarair.net
Tanzanair Services ltd	P. O. Box 365 Airport DSM	+255 22 28431313, 2844101	+255 22 2112946	tanzanair@raha.com

4.0 UGANDA

4.1 BASIC INFORMATION ON THE MARKET FOR PACKAGING AND PACKAGING INDUSTRY

General Assessment

The packaging was one of the most vibrant sectors in the late 1960s. However, the disruption caused by the expulsion of the Asian community, which dominated the sector, led to its rapid collapse. With the restoration of political and economic stability, the sector has picked up somewhat, but 50 percent of domestic packaging requirements are still being met through imports. Local production consists of corrugated box, low-value textile packaging products, tins and cans and rigid plastics. The overall growth in non-traditional exports as well as in coffee and tea has lead to a sharp increase in the demand for packaging materials.

In Uganda, the packaging sector supplies in its product to foods and beverages companies' breweries, horticultural products, edible oil manufactures and dairy companies. The packaging industry is one of the priority sectors under the development programs such as the big push strategy, and plan for modernization of Agriculture. The current production and the list of packaging manufacturing firm are shown in the tables below.

4.2 The Packaging Industry by materials Sub-Sectors

4.2.1 Paper and Board Packaging

In Uganda corrugated board is widely used as packaging materials. It is mostly used by manufacture of consumer products and exporters of horticulture, floriculture and fish. There are no paper mills in Uganda. There are five corrugated paper converters. Wrapping board is imported.

Common Corrugated Specifications

The material most used is in combinations of Kraft liner 125GSM and above, fluting paper of 112gsm and above and Test liner of 125gsm and above. Corrugate paperboard of 3 ply and 5 ply using B, C and E flute are mostly used.

Main applications

- Frozen fish exports in mainly 6kg, 10kg, 12kg and 2okg boxes
- Floricultural sector for exports, in the form of flower and flower cuttings boxes.
- Horticultural sector for the export sector in the form of raw tobacco exports boxes and Cigarette boxes
- The food-processing sector including mineral water, Fruit juices, Dairy products, the biscuits sector, confectioneries, alcoholic beverages, Oil and fat, tea and coffee and canned foodstuffs.
- Chemical and industrial products sector including Cosmetics, Soap, Plastics, Batteries
- The live poultry sector.

Major Printing Companies

- Uganda Bookshop press
- Uganda Printing and Publishing Corporation
- New Vision Printing and Publishing Corporation
- Marian Press
- Graphic systems (U) Ltd
- Kampala LITHO Ltd.
- Mbarara Printers and Stationers Ltd.

4.2.2 Metal Packaging

Metal packaging Paints Ltd., sixth Ind. Area

- Sadolin Paints
- Berger Paints (U) Ltd.
- Cock Paints Ltd., Nalukolongo Industrial Area
- BPC Chemicals Lt.
- Mukwano Industries Ltd.
- Bugisu Industries Ltd.

Main Producers

Unibuilt Ltd.

4.2.3 Glass Packaging

Glasss containers have a wide spread use as a packaging medium. It is mostly used by the Beverages, food and Pharmaceutical industries. However there is no producer of glass in the country, in spite of availability of raw materials such as Silica and Feldspar. All the glass packaging is imported as a finished product. The main importers are the main user companies.

Market trends

The usage of glass packaging is growing especially with the revitalization and growth of the Beverages sector.

4.2.4 Plastics and Composite packaging

Plastic packaging is mainly in the form of rigid plastic of various types including Bottles, cans and Plastic jars. A number of local manufacturers have emerged to cater to this sector. Polypropylene sacks are also widely used in Uganda for the export of coffee, nmaize etc. Both polyethylene and polypropylene are widely used.

Main applications

- → Cosmetics
- → Food processing
- → Chemical industries
- → Pharmaceutical industries
- → Oil and lubricants
- → Plumbing and sanitary

Main Producers/converters

Company	Tones per annum			Products
	2000	2001	2002	
A.K. Plastic Ltd				
Nice House of Plastics				Jericans, bottles, basins, etc
Rwenzori beverages Ltd	1730	1560	1960	Jericans, cups, basins, bottles, etc
Nile Plastics Industries				Shoes, slippers
Sudapalast				Shes, slippers
Visa Plastics				Jericans, basins, bottles, etc
General mouldings	320	370	370	Jericans, soap dishes, etc
Imported plastic	585	618	535	General plastic products

Polyestyrene Foam Box Producers

Company	Tons per annum		
	2000	2001	2001
Hwan Sung Industries Ltd.	175	180	245
Booth Manufacturing (U) Ltd.	127	153	145

Jute and Sisal Packaging

Sisal and Jute packaging is in the form of gunny bags. However the trend is that this is being replaced in importance of polypropylene bags. Uganda is mainly an agro-based economy where gunny bags are used for the transportation and export of produce. This being coffee beans, maize, beans, and other produce. In the informal sector gunny bags are widely used for transportation of various items. Jute bags are mainly imported from Bangladesh or through a third country but the origin country is Bangladesh.

Main applications

→ Coffee

- → Maize
- → Beans
- → Other produce exports

Main Products

There are no local producers of Sisal and gunny bags

4.2.5 Wood Packaging

Wood packaging is mainly in the crates and chests. These are mainly used in the packaging of Tea and vanilla. This is being replaced by corrugated fibre board cartons however wooden boxes and crate will remain important alternatives for export packaging of heavy goods and tailor made packages for some products needing good protection against damage during transportation.

Main application

- → Tea chests
- → Vanila boxes
- → Agricultural tool manufacturers
- → Ceramics

Main Producers

These are mainly produced in the information sector. Some of the users have their own workshops producing their needs.

Market Trends in Packaging

In the last ten years, there has been an upward trend in the growth of the economy. The production in agriculture has been increasing. Production of Tea increased from 24,730 mt in 1999 to 29,236 mt in 2000. Tobacco increased from 10,030 mt in 1999 to 22,837 mt in 2000. The healthy trend in the agriculture sector also effected positively the growth in the manufacturing sector as Foods and beverages, edible oil, soap and cosmetics, cement, paints, beer, etc. as indicated in the table below.

5.0 MOZAMBIQUE

5.1 Packaging industry in Mozambique – Background

The Packaging Industry in Mozambique is not well developed and is geared mainly to meeting basic needs with regard to local and a few exported goods. Most consumer goods are imported into the country, ready packaged. Supermarket shelves reflect this with major local packed products being confined to essentials like mineral water, fresh meats and dairy, cooking oils, flour-sugar and nuts. Packaging development in any country is driven by product needs. The agro-food sector in Mozambique has a small but growing export sector, making use of 'packaging'. Some notable product supply deficiencies occur even with the basic foods, e.g. Maputo imports all its fresh milk requirements and certain vegetables.

Packaging materials converted

Packaging materials converted in Mozambique are:

- Plastics (rigid and film)
- Corrugated board
- Tinplate
- Sacks - PP
- Plain paper labels

There is limited production of paperboard cartons. The one company producing tin cans is using a slow line. The cans produced are for specialized end uses, e.g. paint. The glass factory, Vidreira de Mozambique, may reopen this year, depending on finance.

Packaging imports

Packaging materials imported are corrugated board, paper products, paperboard, polymer, plastic (PET) pre-forms, tinplate, glass, pigments, and inks. Most packaging materials are imported from neighboring South Africa. A tax rate between 0 and 7.5% is levied depending on whether the imports are categorized as raw materials, intermediate

(semi finished) or finished goods. Many companies also apply for and get, tax exemption on imported goods and materials.

Printing

The printing industry meets local needs for paper labels as well as the usual promotional materials, brochures, leaflets, reports, etc. At present, it offers little in print quality for export packaging. No production by printers of self-adhesive labels and paperboard cartons was identified during the audit.

5.2 The packaging industry by sector

In total, the plastics packaging sector represents an estimated volume of less than 10,000 tons per annum. Topack, the market leader, converts about 200 tons per month. This represents about one-third of the plastic sector in Mozambique. Employees in the '"packaging plastics' sector total about 300.

5.2.1 Rigid plastics

The plastics sector is the better developed technologically, with companies offering injection moulding, blow moulding, injection stretch blow moulding (ISBM) and blown film extrusion. There is no vacuum forming, film lamination, co-extrusion technology in place; again, any local needs are mainly supplied from South Africa. The largest company, Topack, employs 100 people.

Injection moulding

Injection moulding capacity is the largest technology, mainly using old machines. Tonnage ranges from 100 to 1,000 ton clamp force. Materials processed are the standard commodity plastics LDPE, LLDPE, HDPE and PP. No engineering plastics were seen being processed although this survey only assessed 'packaging'-related companies. Pigments are imported. One company is exporting crates to Angola.

Company	Injection moulding capacity
Implastic	180 ton, 400 ton and 600ton
Industrias Manica	2 function machines (170 and 150ton); 4 non- functional
Plasticos da Beira	1 x 100 ton
Riplex	1 x 240 ton
Toppack	2 x 650 ton; 1x 850ton; 1x 1000ton; plus smaller machines x 2; Screen-printing: semi automatic for crates

There is much unused and under utilized capacity. In two factories all injection-moulding machines were idle at the time of the visit. By contrast, the largest factory, Topack, is modern, well equipped and currently expanding. Tool room facilities are limited to basic repair and maintenance. There are few toolmakers in Mozambique. Moulds ex overseas are a low cost option.

Injection stretch blow moulding

ISBM is running at four companies, which supply the larger markets (local mineral water, cooking oil) with ISBM is running sizes up to 5 litres. One company is intending to place its machines directly at factory sites where these containers are filled in the central district so as to minimise transport.

Company	ISBM capacity
Greif	1x injection moulding m/c (Nissei) supplying pre-forms; Hand blow (Wel Le, China) x5; one more Nissei on order

Implastic	1x ISBM blower; imported pre-forms
Riplex	4x ISBM blowers; imported pre-forms
Topack	ISBM blower; imported pre-forms + made in house

Blow moulding

Blow moulding is a smaller business in Mozambique, producing bottles and containers up to 5-Htre capacity. LDPE, HOPE, PP and, in one case, PVC_S machines are running. Screen-printing of bottles was seen at only one company, Riplex, mainly on cosmetic bottles. Screen-printing of plastic crates is carried out at Topack.

Blow moulding capacity

Company	Blow Moulding Capacity
Implastic	5x Bekum; processing PVC, LDPE, HDPE and PP
Industrias Manica	1x Bekum; 1x other
Riplex	Blow moulding x3 (Parkers): 2x single station, 1x double station. Screen printing, 1 colour; hot foil stamp
Topack	4x Bekum

5.2.2 Flexible packaging

Materials converted are LDPE, HDPE and PP in thicknesses from 10 to 120p.m. Supply is to the local bag and carry bag market, either as separate bags or on a roll. Film is flexographically printed, mainly on to carry bags and sachets and of poor quality. Laminations,

metallised and co-extruded films are not converted in Mozambique and are generally supplied in printed form (e.g. 6 colour flexo) from South Africa.

Blown film extruders

Company	Blown film extruders
Industrias Manica	4x extruders; LDPE, LLDPE, HDPE, PP
Plasticos de Beira	2x extruders(one Battenfeld); 4x carry bag extruders and makers; HDPE
Riplex	2x extruders; LDPE, LLDPE, HDPE, PP
Topack	4x extruders; LDPE, LLDPE, HDPE

Plastic printing

Plastic printing presses are used mainly for simple printing work, e.g carrier bags for retailers.

Printing equipment in plastic sector

Company	Presses
Industrias Manica	2x flexo presses: one 4-colour and one 2-colour
Riplex	1x flexo press (6 colour); quality= the best of the bunch one colour screen printing hot foil stamp
Topack	2x flexo presses (4-colour) screen printing of crates

5.2.3 Corrugated board and paper

Cartonagens de Mozambique Lda (Carmoc) is the major producer of corrugated board (3000 tons p.a); Embalagens Holdains Ida (Holdians) is sthe 2nd supplier (1000 ton p.a) in Mozambique. Both companies are South African owned. Carmoc operates the only corrugator in Mozambique, There are two other smaller converters. Board produced is SWP 'b' and 'c' flute and DWB, e.g banana cartons. The producers' chief customers are the first industry, SA Breweries, Coca-cola, BA Tobacco, and the fish/prawn and cashew industries.

The two converters are characterized by having old to very old equipment. This situation is anticipated to change within the next years for the major supplier of corrugated board, Carmoc.

The company will become a wholly owned subsidiary of the South Africa company, Nampak.

The eventual capital investments proposed will result in quality and supply improvement for board from Carmoc.

Intended investments include changes to or new equipment for die cutting, slotting and gluing. Die cut boxes and trays are part of Carmoc's product line. Their largest off take of these is by " Bannaland" (18kg). Other export fruit products are tropical fruits including pineapples. There is currently a problem with supply of cutting and creasing bladders that is resulting in poor quality boxes. There were a number of complaints by users downstream made during the expert visit. Carmoc are currently running at 60% capacity and are able to take on more business.

Paper

Paper and other paper products (laminates; coated), materials are South African sourced (e.g. from the South African owners). Import duty is 2.5%.

Carmoc is actively pursuing the installation of equipment to make 2-ply paper bags. These will hold up to 5 kg of product, e.g. flour, potatoes, etc. Material will be imported and printed in two colours. The factory site may be in Beira.

Printing

Printing is of mediocre quality on 4-colour flexo printer-slotters (e.g. poor register of colours). Photopolymer plates are ex South Africa.

5.2.4 Metal Packaging

The two companies involved, Greif and Carmoc, supply to paint and oil manufacturers and do not produce main line food cans. Greif export their product, a 90-litre drum, to South Africa.

Printing industry

There are an estimated 1,500 employees in Maputo and 500 in the Beira area involved in printing. This is based on 25 to 30 Maputo companies and 8 to 10 Beira companies.

The two mainstream companies visited, Academica and SGL, are amongst the largest in Mozambique. They offer 1 to 5 colours, plus varnish coat, and litho printing of promotional materials, brochures, leaflets, etc.

Mozambique does not have:

- Reel to reel label presses for self adhesive labels
- Paperboard carton production
- UV or IR ink drying technology.

Packaging design

There are a few packaging **graphic designers** in Mozambique. Examples of the work seen were suitable for export quality packaging. Further appraisal is required.

5.2.5 Training

There seldom are enough resources to meet every training need. However, the consequences of not training are far more expensive than the costs of training in terms of failure to develop the potential of Mozambique's human capital.

Problems in Training

Training needs assessment for an industry such as this with its many sectors, each having its particular materials and conversion equipment, is a complex task. A small sample of companies was interviewed in the producer and user sectors. Key aspects of training delivery in Mozambique are:

- Language. Delivery of the training materials in Portuguese is most important at the

supervisor /operator level. In one Company (Topa) the language barrier was so bad that they have ceased bothering about training.

- The small size of each of the industry sectors (board, plastics, etc) in Mozambique too mitigates against having a common approach e.g. a specific competency based course run at one independent venue would not be viable.
- Sharing of a production facility for training. Access to the factory floor by employees from another company is always a problem due to confidentiality issues.
- One comment made (Riplex), that operators did not hold supervisors in high regard and therefore instructions were largely ignored, also needs to be considered.
- Quality culture. The concept of quality is poorly understood, (workers, supervisors, managers), e.g. Riplex: no precision on attaching labels and hand trimming of bottle neck; Mondipak: outdated and poorly maintained equipment gives poor cutting/trimming of board.

For maximum effect training needs to be on the job, preferably in-house and on equipment and machinery as used by the operator / supervisor. Training topics, therefore, need to be focused on critical competencies in the major production sectors where there is enough demand. To assess the demand would require further investigation, particularly in the printing industry.

Besides technical training on packaging, it would be necessary to build the knowledge among high management level at packaging producer and end-user companies regarding the importance of packaging as a strategic marketing and selling tool, including the Design concept and technique.

5.2.6 Plastics

The demand by topic would be dictated by the relative importance in the industry. Injection moulding is the dominant technology followed by blow moulding. The topics that probably would sell best would be 'injection moulding' (e.g. Topack), blow moulding (e.g. Riplex).

Educational courses, such as 'plastics materials', 'quality' and 'printing', may be of interest to a number of plastics and related companies.

In this regard, improvement of the 'polymer' content of the local university chemical engineering course was one suggestion.

Board

There are 2 major corrugated box manufacturers in Mozambique, each with training resources in South Africa. More applicable here would be general courses on 'Packaging' for the companies and their customers (e.g. buyers, admin staff etc.) dealing with, for example, manufacturing processes, material properties and the protection and sales appeal aspects of packaging; and for producers, a program about quality including the storing of raw-board and finishing.

Foods industry

Training topics, selected on the basis on being fairly generic in application throughout the industry, would be on principles and operation of form, fill and seal (FFS), heat sealing and shrink wrapping equipment. C1M have offered the use of their production equipment to the industry in general for any training required.

Technoserve, the agency that is implementing training in the foods area for production plants, is interested in an applicable packaging course running alongside their in-house training.

Specific courses on an individual company basis would not be viable and is best approached by using a more general approach e.g. a course on 'food packaging'.

Education

The closest matches to 'packaging' in the education sector are that of mechanical and chemical engineering. These two disciplines could help supply the packaging industry with technically qualified artisans, diplomats and graduates in the longer term. Three levels of training / education were covered by site visits:

- Centre de Forma9ao Professional Metalomecanica. (A Mechanical Engineering training centre)
- Institute Industrial de Maputo (Technical college level)

- University of Eduardo Mondelane (UEM)

All are potential sources of young staff qualified to be brought into the industry. Discussed with the college and university were suggestions to ensure more students are exposed to opportunities in the packaging industry:

- Exposure to any industry is currently included as a 'practical' component for each course. This could include some time spent in selected 'packaging' companies.
- A 'packaging' bursary scheme would also ensure that approved Mozambique students would be available for work in the industry in the longer term.

Also of note was that the plastics company, Topack, and the Centra de Formacao Professional Metalomecanica are working together to ensure a supply of trained staff for their workshop.

Establishment of a Packaging Testing centre

The establishment of a testing centre in a country or company marks the usual technical growth to a point where there is sufficient knowledge and demand for such. Indicators used to measure this were:

- Current level of testing carried out in a company
- Use of quality control procedures in production
- Use of specifications to control, order and compare packaging materials
- Company certification requirements

In contrast to the positive demand for an information centre, the test centre concept was received with little interest. Current quality culture in the packaging producing industry is virtually nonexistent.

Foodstuff and other product manufacturers would have a need for testing; but this would have to be assessed in terms of demand.

Topack, the leading plastics company, carry out product specific testing in-house. More generic tests, as provided by an independent packaging lab would not be of too much value to them. CIM, however, as a large user of flexible and corrugated packaging, currently have their

incoming packaging materials tested in South Africa and support the creation of a test centre. This view is also likely to be expressed by international companies whose packaging (generally imported) is required to be of a high standard.

On balance, there is not enough current demand in Mozambique to warrant a 'packaging' test centre.

Laboratorio de Engenharia de Mozambique (LEM) is a competent test centre utilised by the engineering sector and INNOQ for a wide variety of tests and checks. They are the best candidate for the hosting of a packaging test centre. INNOQ planned test laboratory developments are also of interest, but dependent on the raising of finance.

Personnel

The packaging information centre will require an employee, probably on a part time basis initially, who will integrate within the existing IPEX structure. The research, planning and conducting of training and short courses will involve a part time person with marketing skills. Both these areas could be handled by one person but probably not as successfully as two specialists; one dealing with information dissemination at IPEX, the other a packaging course coordinator. It is clear that the country's economy is betting on the growth of export of local goods, especially agricultural products. This was made evident by different private and government bodies' efforts to push local producers forward.

A well structured packaging industry would be key to provide, at competitive cost and strategic logistic system, packages such as boxes or retail packs. Further, the technical and quality program to be run in the packaging industry would bring to the country international standards of quality and the sense of searching for industrial solutions nationally.

Product Development

Product development is a major way to stimulate change in this industry; e.g. investment in 'packaging' and related technology must be linked to commercially viable, local or export products. This is the case with the current success of cashew nuts packed for retail. Identification of suitable products and preservation methods has been made by a number of

government departments and NGOs. This link between packaging users (e.g. growers) and the local packaging industry requires strengthening so that locally sourced packaging can be developed and used.

Strength technical support institutions through the creation of a Packaging Directory

Enterprises need to have a quick access to national suppliers of packaging materials and equipment. This will be achieved with the creation of a national packaging directory: packaging producers and converters, importers, printers, equipment suppliers and designers in order for exporting enterprises to quickly identify suppliers of packaging materials and equipment.

Packaging Information centre

To ensure sustainability of knowledge acquisition and transfer in the country, it is recommended to create a focal point for 'packaging' in the country that would provide knowledge acquisition and transfer regarding information sharing, training activities, expertise transfer. The centre would serve the needs of the suppliers and users of packaging materials. It could provide information on export market requirements, but also advisory support on materials, packaging and filling technologies, marketing, labeling, as well as provide training.

6.0 NIGERIA

6.1 BASIC INFORMATION ON THE PACKAGING INDUSTRY IN NIGERIA

General Assessment

The packaging industry has become the backbone of the industrialization of any country. Nigeria is no exception. Packaging, though it is a service industry that can not exist on its own, is essential; without it, the economic activity of any nation becomes unfeasible.

The primary function of packaging is that of product containment and protection. Product storage, warehousing and distribution have been made possible by various packaging materials, either as primary, secondary or tertiary packaging. As far as export activities are concerned, therefore, packaging remains an indispensable facilitator that drives international trade.

Although the volume of products exported from Nigeria is still relatively low, the picture is steadily improving – particularly as a result of government activities to promote non-oil exports.

The packaging industry in Nigeria did not emerge until the 1950s and 1960s; but in the last two decades it has grown a great deal. The following pages will examine the state of the packaging industry in Nigeria.

The Nigerian packaging industry deals in the world's principal packaging materials/media, namely:

1. Paper and board
2. Metal – tinplate & aluminum foil
3. Plastic – rigid & flexible and composite packaging
4. Glass.

Nigeria's packaging industries are located mostly in Lagos and its environs, and are dominated by foreign nationals, particularly Indians and Asians.

6.2 The packaging Industry by Material Sub-sectors

6.2.1 Paper and board Packaging

Main Applications

The Nigerian economy uses paper and paperboard widely, as labels, bags, wrappers, envelopes, display boxes and corrugated boxes. The main advantage of paper and paperboard are;

- Light weight
- High yield - and hence generally cheap
- Very degradable, and therefore do not pose any environmental hazards
- Dead fold characteristics which aid folding and machine running
- Recyclability

The two main drawbacks of paper and paperboard are:

- High porosity, offering no barrier properties
- Low tear resistance.

Depending on need, paper can be treated during manufacture to compensate for these drawbacks. In addition, paper can be combined with other materials, by coating or lamination, to overcome these shortcomings.

Since many goods of paper and paperboard are available, the type or grade used for a particular job is determined by the characteristics of the product and the goal it is meant to achieve. Packaging materials are generally ordered/produced to customer's specifications, which have been agreed beforehand with the supplier.

Raw Materials

Three paper mills are in existence in Nigeria. Each was established specifically to take care of the needs of the paper packaging industry.

- Nigerian Paper Mills Ltd, Jebba, with an annual capacity of 65,000mt, was established to produce Kraft liners as input into the manufacture of corrugated cases.
- Nigeria Newsprint Manufacturing, with an annual capacity of 10,000mt, was established to produce newsprint for newspaper houses and other specialty papers.
- Iwopin Pulp and Paper Mills Ltd, Iwopin, with an annual capacity of 60,000mt, was set up to produce fine papers for the book publishing and packaging industries.

Printers and Converters of Paper and Paperboard

There are many producers of paper and paperboard packaging materials. The major forms of these materials are paper labels, paper base wrappers, display boxes, and corrugated boxes. All the raw materials needed by these printers/converters have to be imported. The names and contact details of the major produces are listed in the *Directory of Nigerian Packaging Materials Manufacturers* in Appendix II.

The scope and capabilities of operators in this sub sector range from one–man outfits doing one-, two-, or a maximum of three colored lithographic printing of labels or cartons, to those with sophisticated 8-colour gravure presses capable of handling multi-color photo illustrations and jobs requiring on-line die-cutting facilities.

Only about seven major suppliers of corrugated cases exist in Nigeria, but they are quite able to cope with the nation's demand. All of them use either B or C fluting medium, producing mostly single-wall corrugated cases.

The major users/consumers of the end products include, among others:

Company	**Type of Business**
1. Nigerian Breweries Plc	Brewing
2. Guinness Nigeria Plc	Brewing
3. Nigerian Bottling Co. Plc (Coca Cola)	Carbonated soft drink& bottled water
4. 7 up Bottling Co. Plc	Carbonated beverages
5. Unilever Nigeria Plc	Soap, detergent, foods, etc

6. Cadbury Nigeria Plc	Food, Beverages and confectionary
7. Nestle Nigeria Plc	Foods
8. PZ Nigeria Plc	Detergents/Electronics
9. Protector & Gamble Nigeria Ltd	Detergents/Personal Products
10. Doyin Investments	Detergents/Seasoning cubes

6.2.2 Metal Packaging

Metal Cans and Containers

Steel is one of the older packaging materials, and was originally used for round, square and rectangular boxes and containers. Tea and tobacco were historically the two products most often packed in metal, in tin-plated, mechanical seamed or soldered steel containers with hinged lids. Today, such labour-intensive metal boxes are limited to custom and upscale applications, such as specialty and gift containers.

No metal packaging has had as much impact on society as food cans. Packing of thermally-processed foods into hand-soldered cylindrical metal cans started in the 1800s, and soon developed into a major industry.

Today, metal packaging, mostly in form of cans, is widely used for food and beverages of all kinds (e.g. Cadbury's *Bournita,* Nestlé's *Milo*, etc.), and for non-food items such as aerosol insecticides, collapsible tubes for toothpaste, tin-free steel, and aluminum (both flexible and rigid). The materials used most in can-making are tinplate and aluminum, with tinplate the most common in Nigeria. Tinplate is thin mild-steel with a very thin coating of tin on each surface.

The advantages of cans made of tinplate include the following:

- Thermal stability
- Strength

- Rigidity
- Opacity
- Ease of processing on high-speed forming lines
- Easy recyclability
- Provided seam quality is good, metal containers offer 100% barriers to gas, moisture and light. They are easily recyclable.

Other characteristics of metal making it useful and valuable as a packaging material include its stiffness, strength and durability, and its attractive appearance, which allows many possibilities for graphic design. All things being equal, food/drinks packed in cans enjoy a relatively long shelf-life, of up to two years or more. The only negative thing metal as a packaging material is its high cost, and its high susceptibility to corrosion if in contact with a wet medium without adequate lacquer coverage.

Up till the early 1990s, most of the non-refrigerated margarines produced in Nigeria were packed in metal cans. Today plastic tubs are used. The major users of such cans were unilever Nigeria Plc. And PZ Industries Ltd. Current users of metal containers in the country based beverages, such as Bourn vita, Milo and Ovaltine, are still packed in cans. With refill packs available in flexible packaging. Other users of cans include tomato paste manufacturers and insecticides manufacturers, such as Gongoni and Johnson Wax Nigeria Ltd, who use aerosol cans.

Pharmaceutical industries still use collapsible tubes for creams, ointments, and so on. In the decade previous to time of writing, vegetable oil were packed in 4 litre and 18 litre metal containers; but today the market prefers plastic bottles and 18 litre jerry cans for oils. The major use for metal for soda cans, common in many developed countries, is not the case in Nigeria. Soda drinks are packed in glass and PET bottles, whilst juices are packed in aseptically-processed Tetrepaks of various sizes.

Raw Materials:

Though Nigeria has iron and steel complexes/plants, no Nigerian company currently produces tinplate. This is because all available iron and still plants in Nigeria produce only rods. Even if flat sheets are eventually produced locally, the nation will only have succeeded in generating the relevant *inputs* for a multi-million dollar tinplate factory. The road towards the local production of tinplate is long and tortuous. For now, all the tinplate consumed in Nigeria is imported from. The duty rate on imported tinplate is 20% at time of writing.

There are a few major printers and converters of metal packaging in Nigeria. They all import their tinplate from Europe, the USA and Asia, for local printing and conversation. The specifications for imported tinplate are usually based on the importer's required gauge, tin coating weight, and graphic designs. It is not unusual for some big clients to import preprinted plates for local converters to form into cans.

Another metal packaging material is aluminum, which is used to make collapsible tubes by the process of impact extrusion. These tubes were popular for toothpaste and medicinal ointment/pastes years ago. However, aluminum tubes are now giving way to laminate tubes, which are now more acceptable to toothpaste manufacturers and users.

Companies which previously used aluminum collapsible tubes for toothpaste and have switched to laminate tubes include unilever Nigeria Plc, PZ industries and GlaxoSmithKline.

6.2.3 Glass Packaging

Glass is one of the earliest modern packaging media to be used industrially. Glass is an inorganic substance consisting mainly of silica (sand), soda ash, and lime. Glass bottles and jars are widely used in the packaging of food and drink, pharmaceuticals, and cosmetic products.

The main advantages of glass, which make it well accepted as a packaging medium, are:

- It is inert – it does not give any taste or oduor to the product packed in it
- It is impermeable to gases, moisture, aroma, etc.
- It has good chemical resistance. The only chemical known to attack glass at room temperature is hydrofluoric acid.
- It has high heat resistance, and can therefore undergo high-temperature sterilization.
- It has good clarity, and is very transparent
- It has good resistance to internal pressure
- Designs that are returnable (multiple trip packages) are common.

There are two main disadvantages of glass as a packaging medium:

- It is heavy in weight, which increases transportation costs
- It is very fragile, and has poor shock resistance.

The glass packaging scene in Nigeria has good prospects. The industry derives its viability and sustainability from the brewery, soft drink, liquor, and pharmaceuticals industries. The major players here are: Nigeria Breweries Plc, Coca Cola, and the liquor distillers, for whom the bulk of their products go into glass all year round.

There are 5 glass manufacturing companies in Nigeria who satisfy all the glass bottle needs of all local users. They produce all the different bottle/jar sizes, in all required colours.

The major glass container manufacturers in Nigeria are:

- Delta Glass
- WAGI
- Beta Glass
- Sun Glass
- Guinea Glass.

Glass is the only packaging material for which Nigerian users can satisfy almost all their needs locally. It is therefore not surprising that the government has imposed a ban on the importation of all glass containers whose capacity exceeds 150ml (0.15 litres). This automatically imposes a ban on all glass bottles being used by the breweries, the distillers, and the soft drink manufacturers. To substantiate the self-sufficiency of Nigeria in glass packaging, the glass makers export some of their products to other African countries.

It should be emphasized that all the major raw materials for glass making, with the sole exception of soda ash, are locally available.

6.2.4 Plastic Packaging

Plastics are in everyday use worldwide in a variety of applications, not just packaging. Though plastics are relatively new packaging materials in comparison to the alternatives, their use has become very widespread because they are relatively cheap, and easy to obtain. Of over 50 available plastics, the ones commonly used in packaging are as follows:

- Polyethylene – LLDPE, LDPE, HDPE
- Polypropylene – PP, OPP
- Polystyrenes – GPPS, HIPS, etc.
- Polyester – PET
- Polyvinylchloride – PVC
- Polyvinylidene Chloride

Plastics are broadly used as packaging in two types: rigid and flexible.

Various plastic raw materials (resins) can be moulded into rigid containers using any one of several well-established moulding processes/technologies.

Advantages of Rigid Plastic Containers

- No corrosion problems
- Light weight
- Resistance to bacterial and fungal growth
- Versatility in design – can be moulded into various shapes
- Most types (but not totally) shatterproof.

Nevertheless, some disadvantages do exist. They are:

- Plastics are not perfect barriers to gases and water vapour
- Some have low softening points, and hence are unsuitable as containers for goods (food) requiring heat sterilisation
- Plastics are generally non-degradable, and hence disposal is not easy.

6.2.5 The Flexible Plastic (Films)

These are plastic materials which have been blown/extruded to very thin gauges for the purpose of wrapping goods, either manually or on automatic machines. Other flexible (but non-plastic) materials/films include paper (various grades), regenerated cellulose (cellophane), and aluminium foils.

As the name implies, flexible packaging exhibits a lot of flexibility in use. Flexible packaging is used in a wide range of industries, spanning foods, non-food uses, drinks, and pharmaceutical applications. The beauty of flexible packaging is that a suitable material can usually be found to meet the needs of any product. The major attraction of flexible packaging materials is the low cost (resulting from the low gauge), and hence the high yield compared to other packaging

material formats. Flexible packaging is generally used as liners, wrappers, labels, overwraps, bags and pouches.

At the other end of the market for rigid plastic packaging are those companies that manufacture medium-sized to large-sized containers, which are employed in various end-uses. Products in this group range from 4 litre jerry cans for engine oils through 20-50 litre containers for various industrial and domestic uses, to high-duty, high-capacity 100/200 litre drums and 500/1000 litre tanks produced by rotational moulding. These tanks and drums are used for storage of water in homes and industries, and for petroleum products and other industrial chemicals in factories. Most of the common steel-base drums and tanks of a couple of decades ago have given way to their plastic equivalents, due to the obvious advantages of plastics over steel.

The flexible sub-sector of the plastic packaging market is more revolutionary than the rigid sector. Flexible packaging is as flexible in usage as it is in name. Because of its versatility, ready availability, and low costs (as a result of high yield resulting from low gauge), SMEs are drawn to this sector. A small-scale enterprise which cannot afford an automatic machine will choose a table-model heat sealing machine with readily available pre-made bags, printed in one colour, which can be acquired easily from many local sources. Hence such food items, produced by local farmers/traders (for example, yam flower, cassava products in various forms, dried/ground pepper, and so on) are found in these bags in the open markets in Nigerian towns and villages. Even processed portable water is retailed in 250ml bags, at affordable prices, for instant consumption. This market has been useful, even in big cities, where provision of portable, portable water cannot be taken for granted.

At the other end of the flexible plastic packaging spectrum are the sophisticated producers and users of flexible materials that use various plastic films, either single-layer films or in multi-layer laminates, gravure- or flexo-printed in many colours, and run state-of-the art form/fill/seal machines. The multi-nationals and some local big companies fall into this category of users.

In short, flexible packaging is a market sector equally able to service the needs of small and very large companies. Some of the major users in this sub-sector and their end products include the following:

Company/User	Product
Cadbury Nigeria Plc	Confectionaries/Food beverage
Unilever Nigeria Plc	Soaps or Detergents
Nestle Nigeria Plc	Food beverage & Seasoning cubes
Primasidor	Powdered milk, etc.
West Africa Peak Milk	Powdered milk, etc.
Proctor & Gamble	Confectionery

The Directory of Packaging Manufacturers in Nigeria, contains a list of the country's major producers of plastic materials.

Alongside these companies are small, cottage-type operators who put processed water in polythylene sachets of 250/500ml and sell to people all over the country. In a country where portable water is still a luxury, the water business is a lucrative one, and will continue to be so for some time to come.

Quite a number of products previously packaged in non-plastic materials for the Nigerian market are nor found in various forms of plastic packaging. Years back, engine oils were sold in 4-litre cans at Petrol stations; now they are sold in plastic containers. Aluminium collapsible tubes were used by Unilever, PZ and GSK for their various toothpaste brands; now plastic-based laminate tubes are preferred. Non-refrigerated margarines were in metal cans for decades; but now they are in thermoformed plastic tubes and laminate sachets.

Most breweries and soft drink bottles used to pack their bottled products in corrugated cases, but many are now packed in plastic crates for distribution. Powder detergents that were packed in various display cartons are now mostly packed in varieties of films, laminate sachets, or bags.

Nestle, Cadbury and Cocoa Industries are known for the use of 3-piece lever lid cans for their cocoa-based beverages. Whilst all of them still use the cans, quite a reasonable proportion of their products now also end up in laminate sachets of various sizes and bag-in box refill packs. The same trend is taking place amongst powdered milk produces, a good proportion of whose products hitherto packed in cans are now packed in aluminium foil laminate sachets/bags.

The future prospects of the Nigerian packaging industry are bright. Companies and people continue to invest in packaging systems. At this point in time no less than five state-of-the art gravure presses and lamination plants are being installed. With 2.5% duty on new capital equipment and the efforts of the federal governments to improve power supply and other infrastructure, also of progress should be seen in the industrial development of Nigeria in the coming years. Packaging will be a vital pivot.

6.2.6 Other Forms of Packaging

Wood Packaging

A small amount of wood is still used for upscale and novelty packaging. Most frequently, the wood used for this packaging will be distinguished by attractive close grains, good coloring, and an absence of resinous materials or objectionable odours.

The single biggest packaging application for wood in Nigeria, however, is for the manufacture of pallets, which include skids, boxes and crates. Courier services also make use of wooden crates, to reduce losses due to damage and pilferage. For this applications, structural properties, such as stillness, thickness and fastener-holding ability, become important. Although all woods are chemically similar, the amount and nature of cellulose fiber content varies between woods, which results in a broad range of properties between the different types. The densities of various woods, measured in kilogram/cubic metres, can range from between 40kg/m^3.

The common woods used in pallet manufacture in Nigeria are opepe, abora, and mahogany.

Jute and Sisal Bags

There is no distinct dividing line between what constitutes a sachet, a pouch, a bag or a sack, and there are many regional variants on how the terms are applied. The predominant definitions follow.

Bag:

A flexible container that opens or fills at one end, that may subsequently stay open or be sealed. One authority refers to any such container as a bag if the contents weigh less than 22.7 kg. (50lb). When the contents weigh more, the package is called a 'sack'.

Sack:

'Sack' is often used as a synonym for 'bag' or to denote a heavy-duty bag, as noted above. In some instances, 'sack' refers to any large bag, whether made from natural or synthetic fibers.

Bags can be made from single- layer plastic, plastic-based multilayer laminate, and single-wall or multi-wall paper constructions. Paper-based bags have a price and weight advantage over plastic bags. However, plastic-based laminates offer better weather resistance and specific high barrier properties.

Jute and sisal are amongst the earliest materials to be used for sacks, and have been very widely used across history. Historically, sacks have been used for bulk packaging of grains, and are sometimes still used today In Nigeria, cocoa beans and various forms of grains are being packed in 50kg sacks, but a trend is evident towards the use of bags made from woven plastic. Paper-based sacks are widely used by cement manufacturers.

In site of the large amount of jute bags being used in Nigeria particularly for cocoa beans packaging, not a single company today manufactures jute bags locally. Therefore all the jute bags in use are imported mostly from the Asian countries of India and Pakistan.

Packaging Design

Packaging design is composed of two separate components, namely: the structural component and the graphic component.

The structural/technical component encompasses the features and characteristics that fulfill the packages technical and physical requirements: containment, protection/preservation and qualities that facilitate transport and distribution.

The graphic component encompasses the features and characteristics that attract and inform the consumer and motivate a purchase decision. A great part of this concerns surface decoration, although form, material and shape can be equally important. The two design elements are very crucial to the packaging industry. Hence the two elements of package design will now be discussed.

Techinical/Stractural Design

A technical design or redesign is one that calls for some improvement in the functional, structural or performance characteristics of the package. Such characteristics could be barrier property enhancement, incorporation of product dispensing device or a more rigid/robust shape among other things. When package design is being discussed, this technical element hardly comes to mind. But then it is as important as the second element, that is, aesthetic or graphic, which will now be discussed.

Graphic Design

Graphic design is very much part of the overall appearance of a package. Of course it is the aspect of a package that first draws the attention of the consumer because of its aesthetic nature. Graphic design is one area of packaging where designers' ingenuity has been utilized effectively to revolutionaries the packaging industry. This has been further enhanced with the advent of the computer and the availability of various design soft wares. Graphic design is a strong selling point of it presents the product in a positive manner. The success of product branding has been largely dependent on the intelligent graphic design efforts of designers.

Branding is a way of distinguishing one organization's goods or services from another. Without branding, product selection, corporate identification, product loyalty, etc would have been quite difficult.

In Nigeria, there are design/advertising outfits which are quite competent in various aspects of package design. These outfits take briefs from corporate clients and work through the briefs and eventually come up with the end products which range from simple conventional artworks to very sophisticated digital artworks. There are other design outfits which specialize in either fine-tuning of artworks or carry out colour separation activities which printers/converters use to prepare their printing plates or cylinders as the case may be.

Printing

Printing is a trade with a longer history than packaging. Hence, it is better and more widely known and understood. As a result, printing establishments and related training facilities exists worldwide- and Nigeria is no exception.

In Nigeria, the federal government and almost all of the 36 state governments in Nigeria have printing departments. A few polytechnics offer Ordinary National Diplomas (OND) and Higher National Diplomas (HND) in printing technology, and not a few Nigerians have pursued professional diplomas/degrees in printing in foreign countries. The Nigerian printing industry does not suffer the dearth of professionals that afflicts the packaging sector.

Package printing has not posed many problems, as professionals are reasonably easily available. From one-man screen printers to operators of the latest state-of-the-art 8 to 10- colour gravure presses, Nigeria boasts competent printing professional. This reflects well in the quality of locally-printed jobs.

One major drawback is that all printing presses, except simple screen facilities, ae imported. Because government is aware of the capability of the Nigerian printing industry and t he quality of what can be printed locally, higher duties/tariffs are imported on printed jobs coming into Nigeria compared to plain (unprinted) equivalents. For example, whilst plain BOPP,PET,PVC and CPP films attract 20% duty, their printed equivalents attract 50%.

A few of the earlier printing establishments in Nigeria which exposed many Nigerians to the arts and science of printing are:

1. Daily Times of Nigeria, which owned a light packaging outfit called Nigerpak, but now defunct.
2. Academy Press Pls
3. Nigerian Security Printing and Minting Company (Fed. Govt. owned)
4. Boardpak Premier Packaging (Owned by UAC, but now defunct)

Market Trends and Future Prospects

Market trends in Nigeria for packaging suggest that plastic materials in all forms are making a lot of in roads into other packaging materials. This is very obvious in the rigid, semi-rigid, and flexible areas of the industry. The flexible area is particularly popular with both big and small operators. Whilst the big manufacturing companies embrace flexible packaging as a means of reducing their operational costs, for small operators, flexible packaging is simply what they can afford.

A few years ago, only Ragolis, Swan and Coca-Cola produced bottled water in Nigeria. Today, the number of companies doing so, using PET bottles, has increased tremendously.

Packaging Standardization Activities and Regulatory Bodies

There is no recognized packaging standardization body in Nigeria at time of writing. There are, however, three government-recognized bodies whose activities have a bearing on packaging. These bodies are: the Standards Organization of Nigeria (SON); the National Agency for Food, Drugs Administration and Control (NAFDAC); and the Weights and Measures Department of the Federal Ministry of Trade.

Standard Organization of Nigeria (SON)

The SON was established in 1971 by enabling Act No. 56, for the purpose of preparation of standards relating to products, measurements, materials and processes, and the promotion of these standards at national, regional and international levels. SON duties include: certification of industrial products; assistance in the production of quality goods; improvement of measurement accuracies; and circulation of information relating to standards.

The body also awards Nigerian Industrial Standard Certificates to specific products adjudged to be of high quality. SON undertakes seminars, workshops and training sessions aims at assisting industries in understanding the management requirements of the non-generic ISO 9000 quality standards and the generic ISO 14000 series standards for environmental management, and their implementation. SON also participates inspection of import and export activities.

SON carries out the registration of both locally manufactured and imported products. The registration programme is primarily designed to provide data or inventory of products and their specified quality parameters. It also provides information about the manufacturer or importer, and therefore allows traceability of the product. This is especially important when considering specific quality requirements and consumer advocacy/ protection.

Other Services Offered by SON

- Sales of national and foreign standards publication, NIS directory, technical journals, and SON publications
- Laboratory services relating to product testing /analysis
- Laboratory accreditation
- Consultancy services in standardisation and quality assurance
- Investigation of consumer complaints of poor quality products
- Setting-up of councils that work on quality standards for specific raw materials and packaging materials.

A number of packaging standards have been set by SON. These apply to the following.

- Plastic buckets made from polyethylene-NIS 08:1973
- Soft drinks and beer glass bottles-NIS 381:1997
- Plastic crates- NIS 258:1989
- Kraft papers- NIS 284: 1990
- Paperboard and pulp units for expressing properties-NIS 204:1985.

National Agency for food and Drugs Administration and Control (NAFDAC)

NAFDAC has primary regulatory authority in Nigeria over the safety of packaged foods drugs, and cosmetics. Their objective of such authority is to safeguard the consumer against the unwholesome practices that drugs and food producers may engage in.

All manufactured food and drugs in Nigeria must be registered with NAFDAC. The procedure for product registration is well documented, and it is obligatory that manufactures comply with it. There is a similar registration procedure for all foods and drugs imported into the country.

Ministry of Trade- Weights and measures Department

This department of the ministry of trade deals with issues of weights and measures declaration, and compliance by industries; and it regulates declared wrights and volumes on packed food and non-food items. It does this by setting weights ranges for specific products, and ensuring that weighting scales and equipment are regularly calibrated and in good working condition.

The department enforces weight compliance law by paying scheduled and unscheduled visits t o factories and carrying out random checks on weights of products already packed or being packed at the time of the visit.

LEVEL OF AWARENESS OF TBT and SPS among Exporters

In the past 30 years, Nigeria's economy has been solely dependent on petroleum exports. Only recently has government policy been shifted to encourage non-oil exports.

The awareness of TBT and SPS amongst exporters is very low . However, most exporters are aware that exporting finished goods to developed countries is difficult, if not impossible, due to the various stringent conditions and standards that exporters have to meet.

Packaging and Packaging Related Legislations

At time of writing, there are no laws or legislation in Nigeria dealing directly with packaging materials. However, the activities of NAFDAC, SON and the weights and measures department of the Ministry of Trade, as previously indicated, deal directly or indirectly with packaging and certain obligations do therefore exist which impact on packaging. For example, there are labeling requirements that must be met for food and drug products, including the obligation to display ingredients lists, productions dates, expiry or best before dates, weight declarations, and so on.

Packaging Testing Centre and Central Laboratories

There are no known packaging testing centres or central laboratories for packaging analysis in Nigeria. However it is well-known fact that individual companies, particularly the multinational companies, have well-equipped packaging laboratories that take care of their packaging needs. Packaging manufacturers also have some testing facilities to take care of their basic needs.

6.2.7 Other Useful Information

Technical Support and Major Packaging/Training Information

At time of writing, there is not technical support establishment for packaging in Nigeria.

Nevertheless, some big companies, particularly multinational companies, do appoint personnel to handle packaging development and quality assurance. Such people receive training on the job and through self-development. A few such people, self-motivated, have undertaken professional diploma examination of the Institute of Packaging in the UK. Such people now constitute the core of packaging knowledge in Nigeria.

Some such people, on retirement from their various companies, have formed consultancy and training companies. Presently, no university or polytechnic in Nigeria offers any course on packaging; but for polytechnics do offer courses in a related discipline, “Printing Technology”. These colleges are:

1. Yaba College of Technology, PMB 2001, Yaba, Lagos
2. Kaduna Polytechnic, PMB 2021, Kaduma
3. Institute of Management and Technology, PMB 1079, Enugu
4. Kano State Polytechnic, PMB 3041, Kano

Packaging Documentation Sources

There are very few sources of packaging standards documentation in Nigeria. This is not, however, to say that such documentation does not exist. Packaging-related market research is constantly carried out by individual companies, though research agencies; but such reports are hadly ever made available to the public. Documentation on packaging for export and import is available at the Federal Office of Statistics, the Export Promotion Council, and the Nigerian Export and Import Bank.

Packaging and Exportation Consultations and Consulting Firms.

1. Koinonia Ventures Ltd

6th Floor Elephant Cement House

Central Business District

Phone: +234 1 555 7621

Mobile: +234 803 306 5224

Website: Www.Koinonia-Ventures.Com

2. Superior Packaging Consultants Limited

19 Ayodele Fanoiki Crescent

Magodo

Lagos

Phone: +234 1 470 2158

Mobile: +234 802 322 3521

E-Mail: Superior Packaging@Hotmail.Com; Packsolutions@Multilinks.Com

The directory of packaging manufacturers in Nigeria

MAJOR FLEXIBLE PACKAGING MANUFACTURER

NAME	ADDRESS	COMMENTS
Alufoil Nigeria Ltd	Lagos-Otta Rd, Algbado Tel: 01-7730279	Lamination Capabilities
Arvee Industries Ltd	Km 38 Abeokuta Rd, Sango, Otta. Tel: 039-721060/1	Lamination Capability And Cylinder-Making Facilities

Ayogoke Nigeria Ltd	4, Alimoso Rd, Agege, Lagos. Tel: 01-4925041	Nil
Amalgamated Plastics Industry Ltd	Plot 21/22 Sharada Phase 1, Kano.	Nil
Colodence Nigeria Plc	Agbara Industrial Estate, Ogun State.	Nil
Cello Pack Ltd	Kano,Kano State	Nil
Cicopacks Ltd	Port Harcourt. Tel: 084-333166	Manufacturers Woven PP Sacks
Cornerstone	Ewuru Ind Estate, Agbor, Edo Sate	Nil
Eagle Packaging Co Ltd	Otta	Manufacturer Poly Bags
Interlates Nigeria Ltd	Badagry	Solvent Lamination
International Converters	Badagry Rd, Lagos	Solvent- And Non-Solvent-Based Lamination
International Plastics	Plot 4c, Ijora Causeway, Ijora, Lagos	Solvent- And Non-Solvent-Based Lamination
Johnny Industries	Ojota, Lagos	Nil
Lithocrome	Ibada, Oyo Sate	Nil
Lotus Plastica Lmited	Agbara Lindusrial Estate, Agbara. Tel: 01-2693823	Produces Laminate Tubes
Mercury Ltd	Otta, Ogun State	Nil

NICAPACO Ltd	23 Industrial Avenue, Iiupeju, Lagos. Tel: 01-4961505	Solvent- And Non-Solvent-Based Lamination
Omnik Ltd	Ketu, Lagos	Nil
Plastpoly Ltd	Agege, Lagos	Nil
Poly Product Nigeria	Ilupeju Lagos, Aba-Abia State, Otta, Ogun Sate	Manufactures Poly Bags
Salamazor Nigeria Ltd	Lagos	Nil
Shakti	Otta, Ogun State	Nil
Sonnex Packaging Nigeria Ltd	Km 16 Ikorodu Rd, Ojota, Lagos. Tel: 01-4971548	Lamination Facilities
Sunrise Industries Ltd	Ikeja/Otta	Nil
Taju Industries	Ajao Estate, Lagos	Nil

RIGID PLASTICS MANUFACTURERS

NAME	**ADDRESS**	**COMMENTS**
Aristoplast Nigeria limited	7C LSPDC ind. Est. iganmu road, lagos. Tel: 01-802850-4	Nil
Boja industries limited	Arifun indusrial est., mopa,	Nil

	kwara state. Tel: 688274	
Karamu plastic limited	Odunaike st, ilasamaja, lagos. Tel: 01-521462/65	Nil
Shongai packaging industry limited	Km 38 abeokuta express rd, otta. Tel: 039-722204	Also produces flexible paper materials and crown corks
VYB plasti pkg	Wharf road, apapa, lagos. Tel:1872369	
Pure chem. Ind ltd	Km 38 abeokuta express rd, otta. Tel: 039-722475	Nil
Va leer containers Nigeria ltd	1, alapata rd, apap, lagos. Tel: 5877024/5877085	Also produces metal containers
Trufoods Nigeria ltd	Km 38 abeokuka rd, otta. Tel:039-722327	Nil
Abplast products PLC	Km 70 old lagos/ibadan express rd, ode-Remo. Tel:37610066	Nil
Dynamic industries ltd	6 obasa rd, ikeja, lagos. Tel:4962375	Nil
Eleme petrochemical co ltd	Aba rd, port Harcourt. Tel: 084301070/4	Nil
Multipak Nigeria ltd	Kudirat abiola way, oregun, lagos. Tel:4964145	Nil
Peridot Nigeria ltd	43/49 isolo/Oshodi express	Nil

	rd, lagos. Tel:522919	
Veepee Nigeria ltd	Km 38 abeokuuta motor rd, otta. Tel:039722212	Nil
Sonnex packaging Nigeria PLC	Km16 ikorodu rd, ojota, lagos. Tel:4971549/56	Also produces flexible plastics (films)
Coca-cola Nigeria PLC	Iilogbo rd, off ota-idiroko rd, otta.	Nil
Gongoni Nigeria ltd	Sharada phase 2. ind estate, kano. Te:640029	Also deals in aerosol (metal) containers
Hassa plastics	1, mai-malari rd, bompai, kano. Tel:64632348	Nil
Haedeep Nigeria ltd	Plot 2, lateef jakande str, ikeja. Tel:7751747	Nil
Pharco productions ltd	9E isolo ind area. Papa-ajao, lagos.	Nil
Nipol ltd	Apata ganga rd, ibandan, oyo state. Tel:314241	Nil
Robatek Nigeria ltd	Kirikiri rd, apapa, lagos.	Nil
Niger hygiene ltd	Block m, plot 1, oluyole ind. Est.	Nil
Caphi Nigeria ltd	Old lagos rd, ibandan	Does some thermoforming
Ajowa plastics Nigeria ltd	Vori close, off aan rd, agidingbi, ikeja.	Nil

Afromedia	Badagry express rd, lagos	Nil
Johnmoke plymer & allied co ltd	Lagos	Nil
Delta manufacturing co. ltd	Plot9, block e matori, lagos.	Nil
Ibachem ltd	Apapa- oshodi express rd. tin can, lagos	Nil
Nigerlink ind ltd	Km 20 lagos-Badagry express rd lagos.	Nil

METAL AND ALUMINIUM MANUFACTUURERS

NAME	ADDRESS	COMMENTS
Avon crown caps & containers	Km 38 a sbeokuta rd, sango ota, ogun state. Tel:039-722229	Nil
Crown cork &seal ltd	Henry carr st ikeja lagos	Nil
Van leer containers Nigeria plc	1, alapata rd, off dockyard rd, apapa, lagos. Tel:587-7024	Also produces plastic drums
First aluminium Nigeria plc	2, akilo st, ogba, ikeja, lagos. Tel:4923022	Nil
African packaging company ltd	Oba akram avenue, ikeja, lagos. Tel:964267	Nil

Carnaud metal box	3-7 metal box road, ogba ind estate, lagos.	Nil

GLASS CONTAINER MANUFACTURERS

NAME	ADDRESS	COMMENTS
Beta glass plc	Agbara ind estate, ogun state.	Nil
Delta glass Nigeria ltd	Km 17 effurum patani rd, ugheli, delta state. Tel:053-251072	Nil
Guinea glass co ltd	1, ayodele diyan rd, ikeja, lagos	Nil
Sun glass Nigeria limited	Plot 4-8 kudenda ind. Area bypass, kaduna	Nil
WAGI-West African glass industries	Port harcourt	Nil

PRINTING INK MANUFACTURERS

NAME	ADDRESS	COMMENTS
Ault & wiborg nig ltd	Sango-Otta junction, lagos-Abeokuta rd. otta.	Compounds and sells inks to local packaging printers.
Bhumee inks & resins ltd	Km. 38, lagos-Abeokuta rd otta. Tel: 01-7739711	Compounds inks mostly for in-house consumption.

Coates nig ltd	Lateef jakande rd, ikeja	Same as above.
Olympic inks limited	Km 38, lagos-Abeokuta rood. Tel/Fax: 234-1-12663219	Printing ink manufacturing.
Prints ink Nigeria ltd	Km 16, ikorodu road, ojota, lagos, Tel/Fax: 234-1-4977539. Email: Oasisgrp@Alpha.Linkserve.com	Print ink manufacturer.

GRAPHIC DESIGN HOUSES

NAME	ADDRESS
Ideas communications ltd	281 Gbagada expressway, gbagada, lagos, tel/Fax: 01-7736000, 7746000, 5551030 email: ideascom@hyperia.com website: www.ideas ng.com
Insight communications ltd	17/19 oduduwa street, GRA, ikeja Tel/Fax: 01-4979710-6/4979716(fax) email: insight@infoweb.Abs.Net
Lintas limited	6 sylvia crescent, Anthony village, lagos. Tel/Eax: 01-550700/550709 email: lowelintas@lowelintaslagos.com
LTC advertising limited	The motor centre, 1 motorway avenue, opp. Seven-Up bottling co. alausa, ikeja,

	lagos. Tel/Fax: 01-4712056-7, 5557898 email: itc@itc-jwtlagos.com
Mac grafix limited	Israel adebajo close, ikeja industrial estate, lagos. Tel:01-7746355
Rosabel advertising ltd	31, armoire avenue, ikeja, lagos
Shilpee electronic gravure ltd	Km 38 lagos-Abeokuta road, sango-Ota. Tel: 039-7764310
YT & T	Plot859 bishop aboyade cole street, Victoria island, lagos. Tel: 01-4617006

7. CONCLUSION

Most OVOP groups are doing products ranging from cosmetics, yoghurt, honey, handicrafts and detergents. These products vary in their quality but the biggest challenge cutting across still remains packaging. This explains why these groups cannot sell these products beyond their localities as some of the products do not even have the local quality standards mark, bar codes, manufacturing date as well as Sale by dates. To get out of this, it is recommended that the groups are connected with the packaging material suppliers, label manufacturers as well as the standards bodies and bar code institutions in their respective Countries.

In the long run, there is need to create a national packaging directory for each Country where packaging producers and converters, importers, printers, equipment suppliers and designers can easily be accessed not only by OVO groups but other stakeholders as well. At the moment, it is only Nigeria and South Africa who are having Country specific packaging directories.

Packaging Resource Center

A study done by the International Trade (ITC) in 2008 recommended the establishment of a Packaging Resource Center in select African Countries This will act as a focal point through which Micro, Small and Medium Enterprises (MSME) and in particular the OVOP groups will acquire packaging related knowledge. The center should act as a point of knowledge acquisition and transfer regarding information sharing, training activities and expertise transfer. The Center would serve the needs of the suppliers and users of packaging materials. It could as well provide information and advisory support on materials, packaging and filling technologies, marketing, labeling, as well as provided training. This initiative should be taken seriously by the African governments as it remains one of the means through which packaging standards could be taken to a higher level.