

# Fiber Plants of Africa and their Usage

**JAICAF**

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## Preface

The mention of the word "fibers" may bring immediately to mind cotton fabrics and jute bags. However, these represent only a small portion of the group of plant fiber resources that are processed for variety of useful articles such as bags, coops, baskets, and strings for domestic use. Other useful plants that belong to the "fiber" group include bamboo, abaca, rattan among others that play important roles in our livelihoods. These plant resources have been developed in various parts of the world using different techniques, based on the immediate needs of that society, and the society plays a leading role in the product development. The products that are derived are also used in diverse ways in various parts of the world.

This study is intended to find the sources for increasing income and livelihood improvements, and its approach is based on the knowledge of plants and the utilization techniques that have been developed in various areas. Most of these products are rural based and can be developed into big business that can increase the income and livelihood of the rural folks. However, there is a big gap in the information flow with regards to opportunities for product development. Most of the rural dwellers are poor and could improve their livelihood from the plant fiber industry. Unfortunately, the raw material base is fast disappearing from the natural forests and the sustainability of the industry should be addressed immediately. There is the need to find ways of increasing the raw material base and develop new products to increase the income of the rural poverty.

During this study, various professionals such as research scientists in forestry and agriculture, arts and culture, rural development, and agricultural distribution, cultural anthropologists, interior designers, craftsmen, fabric designers, kente weavers, and tradesmen, made various contributions. The report therefore represents a synthesis of information from processors, designers and marketers of fiber and fiber products from various societies and how these products affect their livelihood.

This English version was prepared by the Association by summarizing the Japanese report.

It is our hope that this report will be useful to the general public and various government agencies especially in the developing countries, who are interested in improving the livelihood of rural folks.

The field survey conducted in Ghana would not have been successful without the cooperation of the following persons and institutions in Ghana, who provided us with invaluable information. Consequently, we wish to express our sincere gratitude to Dr. A. B. Salifu, Director General, Council for Scientific and Industrial Research (CSIR), Dr. S. K. Dery, Deputy Director, Oil Palm Research Institute, Kusi, Dr. Victor Kwame Agyeman, Director, Forest Research Institute, Kumasi and Dr. Oteng Amoako, also of Forest Research Institute of Ghana, CSIR, Dr. Stephen Nutsugah, Acting Director, Savanna Agricultural

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Finally, this report was prepared under the guidance of this Association and does not necessarily represent the position of the Ministry of Agriculture, Forestry and Fisheries of Japan or the Japanese Government.

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# Chapter 1 Background of the Research

## 1) Preface - What is high profitability?

The purpose of this project is to examine the policies for securing profitability and improvements and the future prospects for fiber plants and processed products in Africa, including the sustainable utilization of natural resources. The theme of this research project is "high profitability." To achieve this objective, this research project examines how the improvement of profitability can be realized in a series of steps from the acquisition of raw materials, processing, and sale of products, as well as production and harvesting. This research project has also been implemented for the purpose of increasing profits in daily economic activities of regional residents and resident organizations, thereby improving their livelihoods. Therefore, the examination commenced by focusing on the plants and the products for which the environment and technology already exist within the region, rather than introducing new techniques from outside of the region.

Fiber products in Africa represent materials and designs specific to Africa and they are used in everyday life. Using such traditional materials and designs as the starting point, there is a possibility for fiber plant products to contribute to improving the income level of rural communities by devising suitable processes and sales.

The quality and sales methods vary depending on the local market, urban market, or overseas market. By organizing these methods and taking an approach suitable for each market, values at a new level can be created, thereby improving the profits.

Production methods with minimal environmental impact have been in the worldwide focus for some length of time now. At the same time, local identities and cultural diversity have been more appreciated and customers who value such features are gradually increasing. What should be done to respond to such expectations? How can a sustainable livelihood improvement of developing countries be achieved? In this report, "high profit" refers to the entity that enables a sustainable livelihood including the relationship between fiber plants and people as well as profit.

## 2) Fiber plants as local resources

This research project targets the full spectrum of fiber "plants" including useful plants that are collected and used from nature, as well as fiber "crops" that are cultivated. All over the world, various fiber "plants" including fiber "crops" that are represented by cotton and its industry have been used for various purposes. In Africa also, wide varieties of fiber plants are used for binding tools such as ropes and strings, materials for baskets and bags, furniture and farm tools.

Most of these fiber plants grow naturally in forests and the savannah or are cultivated, and have been closely related to the lifestyle of the people since ancient times. Items that function in the same way can be seen in each area such as dyed textile products and baskets; however, the plants that are used differ slightly and plants that grow naturally in each local environment are used. That is, people obtain various plant resources from the environment of their inhabited areas and have utilized these resources. Such an attempt to evaluate the economic values of non-timber resources is being practiced in each region.

### 3) Significance of targeting fiber plants

In this project, fiber plants were selected as the research target because as regional resources, their utilization has the potential to improve the livelihood of the people of developing countries and their overall economic development. The possibility can be realized at three different levels.

The first level is income improvement and livelihood stability at the micro level such as the cottage industry. Recently, in developing countries, many residents have shifted their main livelihood activities from agriculture to non-agricultural economic activities due to the scale of the risks related to agricultural production. This trend is particularly prominent in the rural communities in Africa. Under such circumstances, utilization, processing, and sales of fiber plants contribute to the improvement of the income levels of individual families as well as the establishment of a stable livelihood through diversification of income sources. That is, these trends lead to an overall reduction of the risks of earning a livelihood by providing an alternative income source to agricultural production that may experience sluggish periods due to bad weather, as well as providing a simple increase of cash income through the sales of fiber plant products.

The second level is the development of local industries that have evolved under certain conditions of geographical expansion. In developing countries, in many cases, the latent demand for indigenous products specific to the area cannot be uncovered even though such a demand exists, as the information on the products or the producing region has not sufficiently reached the demand side. In particular, there is potential for expanding the sales channel of the fiber plant products that have been developed and inherited under the specific natural environments or traditional culture of the regions domestically and in the overseas markets. Unlike high-return crops such as fresh vegetables and fruits whose freshness is the decisive factor, fiber plant products have fewer handicaps at the distribution stage even in the rural areas where transport infrastructure has not been developed. By expanding the production and sales that promote the features of these fiber plant products, the lead for economic vitalization of the entire region can be captured.

The third level is the promotion of industry diversification at the national level. Many African governments try to promote diversification of domestic industries in order to break away from the economic structure that relies on a small number of cash crops that have been retained from the colonial era. In reality, however, progress in the diversification of domestic industries is very slow in the poor countries that have no underground mineral resources and thus do not have many choices. Under these circumstances, the utilization of fiber plant products as local resources deserves examination as a measure for the diversification of domestic industries for the poor countries that have only limited choices.

### 4) Structure of this report

In this report, this Chapter (Chapter 1) clearly indicates the background and purposes and Chapter 2 historically reviews the actual state of use of fibers in Africa. Chapter 3 clarifies the actual state of use of fiber products in the modern age based on the result of the field survey that was conducted in Ghana. Actual improvements necessary for individual products are suggested as well as an examination of various aspects of fiber products such as raw material procurement, manufacturing, and sales. Chapter 4 discusses the various aspects that are required for the promotion of the use and sales of fiber products, such as the organizations, systems, and markets. To develop the use and sales of fiber products in a

sustainable manner, the production and collection of fiber plants, which are the raw materials, must be continued without affecting the environment. To achieve this, the environment for growing fiber plants as raw materials and the cultivation are discussed in Chapter 5.