



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

SMALL-SCALE, WOOD BASED PROCESSING  
ENTERPRISES; THEIR CHARACTERISTICS AND IMPACT  
ON PEOPLE OF AKURE LOCAL GOVERNMENT AREA OF  
ONDO STATE

M. O. Adedokun, Aina Oyun A. B., O. M, and A. C. Adetogun,

Paper prepared for presentation at the Farm Management Association of  
Nigeria Conference, Asaba, Nigeria, October 18-20, 2005

# SMALL-SCALE, WOOD BASED PROCESSING ENTERPRISES; THEIR CHARACTERISTICS AND IMPACT ON PEOPLE OF AKURE LOCAL GOVERNMENT AREA OF ONDO STATE

Adedokun, M. O.<sup>1</sup> Oyun A. B.<sup>2</sup> Aina, O. M,<sup>1</sup> and Adetogun,<sup>1</sup> A. C.

<sup>1</sup>Dept. of Forestry and Wildlife Management, University of Agriculture, Abeokuta.

<sup>2</sup>Dept. of Forestry and Wood Technology, Federal University of Technology, Akure

Corresponding author <sup>1</sup>

## ABSTRACT

A survey was conducted in Akure Local Government Area of Ondo State to give preliminary information on the magnitude, characteristics and contribution to rural employment of small-scale, wood-based processing enterprises through structured questionnaire. Small scale, wood based enterprise accounts for about 44% of the total rural labour force. The enterprises are characterized by very small size, heavy reliance on entrepreneur and family labour, technological simplicity of operations and rural location bias. Furniture, logging and carpentry were found to be the commonest among the small scale, wood-based enterprises. A range of problems facing small scale, wood-based enterprises was identified and a number of solutions were suggested. It was recommended that there should be removal of various discrimination through policies which might go a long way to ensuring a healthier small-scale, enterprise growth, reduction or removal of subsidies and other privileges currently offered the large enterprises rather than extending these support and incentives to small ones, a number of specific policy changes to increase access to market, reduce raw material and financial problems should be effected, and small-scale enterprise should be organized into groupings so as to benefit from policy changes.

Keywords: small-scale, wood-based, enterprises, impact

## INTRODUCTION

Small-scale forest-based processing enterprises exist in most countries. They differ from large-scale forest industries in a number of important respects. Generally, they serve markets which are not reached by large-scale forest industries. Their linkages with the rest of the economy are mainly with the rural/agricultural sector rather than the urban/industrial sector and they are affected by government policies in quite different ways than large forest industries, FAO (1985). Like other rural small-scale industries, small-scale forest-based industries have been largely neglected. Industrialization in the developing world has focused on large industries which led to the popular but misleading impression that rural industries are either insignificant or absent. It is therefore necessary to now concentrate attention on the impact of these wood-based enterprises on the rural economy.

Small-scale forest-based enterprises suffer general neglect shown to the small-scale enterprise and of the industrial spectrum, and to small rural enterprises in particular. Most countries focus on promoting large industries and building up an urban/industrial infrastructure. Policies and measures to encourage this not only neglect the particular needs of small-scale enterprises, but inadvertently discriminate against them. Large industries currently benefit exclusively in a large measure than small ones from easy access to institutional credit or credit guarantees, favourable import duties access to foreign exchange and training systems run by governments. The wood-based industry is characterized by the production of large number of different products. The most important, after all, is the production of sawn wood, veneer, boards, (plywood, particle board, fibre board), parquet, furniture, carpentry and wooden houses.

<http://www.unece.org/trade/timber/mis/market/market-59/yugoslavia.pdf>.

Over the last two decades, the wood-based industry has been transformed in terms of sophistication, diversity and production. There have been increased automation, quality control and production of value-added timber products. <http://www.forestry.sarawak.gov.my/forweb/industry/wbi/wood.htm>. The principal problems faced by small-scale forest-based enterprises tend to be weakness of demand, limited supply of skilled manpower and shortage of finance. It is now becoming apparent that small-scale, forest-based processing enterprises are a much more important component of the forest industrial sector than has been generally recognised. More attention is therefore required towards meeting their particular needs. Information on these small-scale forest-based enterprises that is now beginning to become available is therefore needed in order to provide better support in situation with developmental potential.

The focus of the study is directed to assessing the impact of some common small-scale wood-based enterprises on the rural employment of the selected villages. Selected characteristics of these enterprises were also studied.

## MATERIALS AND METHODS

The study area was Akure Local Government Area of Ondo State which falls between latitudes 6° to 8°N and longitudes 4° to 6°E, in the rain forest zone of Nigeria. It covers about 792 Km<sup>2</sup> land area of Ondo State. The local government area has a population of about 149,403 representing only 3.85% of the states population (1991 Census). The mean annual rainfall within the area range from 1600mm to 1800mm, while the mean annual temperature is about 32°C. The soils are commonly ferruginous soil group derived from Basement Complex. Typical vegetation consists of rain forest free species with virtually no grasses. Predominant indigenous trees include *Cola gigantea*, *Hunteria umbellata*, *Terminalia superba*, *Triplachiton scleroxylon*, *Albizia zygia*, *Milicia excelsa*, *Bosqueia angolensis* and *Celtis zenkeri*.

There are about 52 villages in Akure Local Government Area of Ondo State. By the procedure of random selection, 10 villages were located for data collection, thus having about 20% sampling intensity. In each of the villages, 20 adult males were randomly picked for the administration of questionnaire that was based on the impact of the enterprises on employment while 5 enterprises per village were randomly located for administration of the questionnaire that was based on the characteristics of the enterprise.

The sampling was conducted by making personal visits to the villages sampled. The pre-test sampling has indicated that most of the adult males would normally be available until the afternoon. Therefore the visits during the period of data collection were made between 2 – 4pm. The completion and retrieval of questionnaire were done on the spot. The literate audience completed the questionnaire themselves owing to its simplicity, while the illiterate audiences were aided by interpreting each question to them and the answer ticked as appropriate.

## RESULTS AND DISCUSSION

### *Impact on rural employment*

The economic contribution of the small-scale industries to developing countries exceeds any industrial sector except those of rapidly expanding petroleum industry. This was also pointed out by <http://biz.thestar.com.my/news/story.asp?file=/2005/1/5/business/9814176&sec=business> which says that the wood-based industries have experienced tremendous development over the past 10 years and it is one of the sectors contributing significantly to our economy. According to Ajibade (1989), the sawmilling, furniture, woodturnings and carving industries are not only producing quantities of export commodities but also employ a high percentage of the total labour force of both skilled, semi-skilled and the unskilled manpower in the rural areas. The industries contribute immensely towards alleviating unemployment problems in the country, especially in rural areas.

The importance of small-scale, wood-based enterprise in the economy of rural populace cannot be over-emphasized. This is reflected in the propulsive influence of the enterprise on the rural employment. As indicated by the result of the survey in this study (Table 1) small-scale, wood-based enterprises provide principal employment for between 25 and 60 percent and accounts for 44% of the total rural labour force in the villages for which recent information was collected. The same range has been reported by some researchers in their survey in Northern Nigeria where small-scale enterprises accounts for between 20 and 30 percent of the total rural labour force. The small-scale, wood-based, enterprise contribute to employment and stabilization of the rural population, since, of necessity, it is mostly sited in the rural areas and is, to some extent, labour intensive. As such, small-scale, wood-based enterprise tends to improve total rural cash income and hence can make significant impact on development of local skills and entrepreneurship.

Table 1. Number and percentage of respondents indicating rural employment in small-scale, wood-based enterprises

Village	No. of Respondents	Rating	Percentage (%)
Bolorunduro	10	Medium	50
Oba-Ile	12	High	60
Ala	7	Medium	35
Aponmu	7	Medium	35
Ita-Ogbolu	12	High	60
Ayede-Ogbese	8	Medium	40
Oda	5	Low	25
Araromi	8	Medium	40
Owode	9	Medium	45
Iju	10	Medium	50
Total	88	Overall %	44

Rating: Low (1 – 5), Medium (6 – 10), High (11 – 20).

Note: Rural employment is expressed as a percentage of the number of respondents over the total number of people sampled.

As shown by the result of the study (Table 2) it shows that among wood-based processing enterprises sampled, the most common are furniture logging and carpentry. These enterprises, thus contribute more than others to rural employment and income. The present study agrees with the survey carried out and reported by FAO (1985) which indicated that employment in small enterprises exceeded that in larger forest-based plants by a factor ranging from 3 in Jamaica to 15 in Zambia. In addition to the employment and income that they generate in rural areas, the small-scale, wood-based enterprise can contribute to rural development through agriculture, smoothing out seasonal production/income cycles, provision of goods and they can introduce vital skills into rural areas.

Table 2. Number and rating of respondents on the composition and magnitude of small-scale enterprise.

Village	Furniture		Carpentry		Sawmilling		Logging	
	No.	Rating	No.	Rating	No.	Rating	No.	Rating
Bolorunduro	16	High	0	None	0	None	4	Low
Oba-Ile	7	Medium	4	Low	0	None	9	Medium
Ala	5	Low	8	Medium	0	None	7	Medium
Aponmu	15	High	1	Low	0	None	4	Low
Ita-Ogbolu	12	High	4	Low	0	None	4	Low
Ayede-Ogbese	14	High	1	Low	0	None	5	Low
Oda	11	High	0	None	0	None	9	Medium
Araromi	12	High	0	None	0	None	8	Medium
Owode	10	Medium	5	Low	0	None	5	Low
Iju	14	High	5	Low	0	None	1	low

Rating: Low (1 – 5), Medium (6 – 10), High (11 – 20).

#### *Characteristics of small-scale, wood-based enterprises*

Small-scale, wood-based processing enterprises are characterised by very small size, heavy reliance on entrepreneurs and their family members for labour, technological simplicity of operations, low capital intensity. Limited industrial and managerial skills, seasonality of activities and rural location bias, (Arnold *et al.*, 1987). Very few of such small enterprise use powered machinery of any kind but must rely instead on hand-tools.

Small-scale, wood-based processing enterprises are characterized by very small size, heavy reliance on entrepreneurs, and their family members for labour, technological simplicity of operations, low capital intensity, limited industrial and managerial skills, seasonality of activities and rural location bias. As shown in Table 3, the work-force in the ten villages ranged from 1 to 10 persons for logging, furniture and carpentry while the work force for sawmilling enterprise ranged from 10 to 20 persons. For carpentry over half the units were one person, household operation and less than 28 % employed five or more workers (Table 3). In the logging and furniture industry, as many as between five and ten persons working in the enterprises were the owners or members of their family with the rest being mostly informal apprentices. The wages are usually very low and working conditions poor. This is indicated by the response of the entrepreneurship through oral interview and personal assessment of the industrial area. As shown in Table 3, the number of employee in the sawmilling and logging industry appeared to be larger than other small-scale, wood-based enterprise, but a major feature common to them is their predominantly rural location. Another important characteristic is that small-scale, wood-based enterprises rarely exist in isolation. It is therefore not unusual for the owner of a carpentry shop to also operate teashop/restaurant, maize mill or small-scale tailoring shop.

Table 3. Working size of small-scale, wood-based enterprise

Village	Logging	Furniture	Carpentry	Sawmilling
Iju	5 - 10	5 - 10	N.A.	N.A.
Bolorunduro	5 - 10	1 - 5	1 - 5	N.A.
Oba-Ile	5 - 10	5 - 10	N.A.	10 – 15
Ala	5 - 10	5 - 10	N.A.	N.A.
Aponmu	1 - 5	5 - 10	1 - 5	N.A.
Ita-Ogbolu	5 - 10	5 - 10	2 - 5	15 – 20
Owode	2 - 5	5 - 10	2 - 5	N.A.
Araromi	5 - 10	5 - 10	1 - 5	N.A.
Ayede-Ogbese	N.A.	5 - 10	5 - 10	N.A.
Oda	1 - 5	5 - 10	5 - 10	N.A.

Note: N.A. = Not available

Small-scale, wood-based enterprises differ in degree of dependency on machinery (Table 4). In general, the enterprises use few or no machines but considerable variation exists in this. As seen from Table 4, furniture and carpentry use almost no machines while sawmilling and logging works, rely on machine to a considerable degree. In terms of production, small-scale, wood-based enterprises adopt an "on order" rather than batch system as evident from the response to questionnaire. This is attributable to their non-uniform and small markets. This system is well adapted for survival under limited markets but may limit the level of efficiency achievable.

Table 4. Type of machine in various small-scale, wood-based, enterprise

Village	Logging	Furniture	Sawmilling	Carpentry
Iju	Heavy duty	Simple tools	Heavy duty	Simple tools
Bolorunduro	Heavy duty	Simple tools	Heavy duty	Simple tools
Oba-Ile	Heavy duty	Simple tools	Heavy duty	N.A.
Ala	Heavy duty	Simple tools	N.A.	N.A.
Aponmu	Heavy duty	Simple tools	N.A.	Simple tools
Ita-Ogbolu	Heavy duty	Simple tools	Heavy tools	Simple tools
Owode	Heavy duty	Simple tools	N.A.	Simple tools
Oda	Heavy duty	Simple tools	N.A.	Simple tools
Araromi	Heavy duty	Simple tools	N.A.	Simple tools
Ayede-Ogbese	N.A.	Simple tools	N.A.	Simple tools

Note: N.A. = Not available

Returns to capital were not actually determined but the response to questionnaire indicated that actual levels of economic profit were highest in the sawmilling industry followed by the logging industry (Table 5). The profitability in the furniture industry was low and none in the carpentry work. There is little information on how the enterprises are organised but this current survey indicated that they form associations/cooperatives rather than working independently. However, many are informal and unregistered.

Table 5. Number and rating of respondents reflecting the profitability of small-scale, wood-based enterprise

Village	Carpentry		Furniture		Sawmilling		Logging	
	No.	Rating	No.	Rating	No.	Rating	No.	Rating
Bolorunduro	0	None	1	Low	11	High	8	Medium
Oba-Ile	0	None	3	Low	13	High	4	Low
Ala	1	Low	0	None	7	Medium	12	High
Aponmu	0	None	1	Low	9	Medium	10	Medium
Ita-Ogbolu	0	None	2	Low	10	Medium	8	Medium
Ayede-Ogbese	0	None	1	Low	14	High	5	Low
Oda	0	None	1	Low	17	High	2	Low
Araromi	0	None	1	Low	15	High	4	Low
Owode	0	None	0	None	14	High	6	Medium
Iju	0	None	1	Low	16	High	3	Low

Rating: Low (1 – 5), Medium (6 – 10), High (11 – 20).

## CONCLUSION AND RECOMMENDATIONS

The purpose of this study has been to give preliminary information on the magnitude, characteristics and growth potential of small-scale wood-based processing enterprises which have so far been relatively neglected as one additional way to commercialize forest resources. It is clear that total employment generated by small-scale, wood-based enterprises is a large part of total off-farm rural employment. This may constitute one of the more important contributions that the forest sector makes to rural development. Such enterprises already exist in significant numbers, and contribute a lot to rural employment and income. Although much of the employment is seasonal but when it is adjusted to full-time work equivalent, the income seems to be at least as good and often greater than in large enterprises.

The enterprises are very small and offer much of employment, they generate to the entrepreneur and his family. The processing activities are based on a broad range of forest raw materials and not only on wood. Depending on what is being processed, the level of equipment use ranges from negligible to quite significant but on average, it is much lower than in larger enterprises. Output per unit labour is thus low but nevertheless returns per unit investment can be quite high.

In their operations, small-scale, wood-based enterprises face a range of problems especially related to limited markets, poor access to forest and other raw materials, limited financial resources and shortage of manpower. For some of these items, the problem is worsened by official discrimination through policies that favour easier access by larger enterprises even within the forestry sector. This study has therefore suggested the following:

- (i) Removal of various discriminatory practices through policies which might go a long way to ensuring a healthier small-scale, enterprise growth.
- (ii) Reduction or removal of subsidies and other privileges currently offered to the large enterprises and extending these support and incentives to small scale enterprises.
- (iii) A number of specific policy changes to increase access to market, reduce raw material and financial problems should be effected,
- (iv) Small-scale enterprise should be organised into groupings so as to benefit from policy changes.

#### REFERENCES

- Ajibade, T.A. (1989). Problems of raw material supply to wood-based industries in Egba-Egbado area of Ogun State.
- Arnold, J.E.M. Chipeta, M.E. and Fisseha, Y. (1987). The importance of small, forest-based processing enterprises in developing countries
- FAO (1985). The contribution of small-scale forest-based processing enterprises to rural non-farm employment and income in selected developing countries. Report FO: MISC-85/4, Rome.

<http://www.forestry.sarawak.gov.my/forweb/industry/wbi/wood.htm>

<http://biz.thestar.com.my/news/story.asp?file=/2005/1/5/business/9814176&sec=business>

<http://www.unece.org/trade/timber/mis/market/market-59/yugoslavia.pdf>