



## APPRAISAL OF ECONOMICALLY VALUABLE TREES IN LAFIA NORTH DEVELOPMENT AREA IN NASARAWA STATE, NIGERIA

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### ABSTRACT

*This study was carried out in Lafia North Development Area (LNDA), North East of Lafia, in Northern Central, Nasarawa State, Nigeria to appraisal economically value trees document data necessary for the conservation and management of the available spp of trees in the area. Trees serve many purposes and have great value economically, medicinally and aesthetically. Trees contribute substantially to the economy of the area as timber, firewood, charcoal and medicine. This paper highlights some of the Economic tree species commonly used by the people in and around the area, focusing on the identification, local names and usage. Thirty plant species belonging to Twenty families were identified. This study recommends the involvement of the local people in the conservation and management of trees in the area.*

**Keywords:** Appraisal, Conservation and Lafia North Development Area

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### INTRODUCTION

The Nigeria vegetation has been greatly altered over the years by natural events including climatic change. The major pressure arises from the manifold activities of man, which include uncontrolled timber exploitation, shifting agriculture and urbanization (Ugbogu *et al.*, 2004). There is mounting pressure on tree species as source of wood, medicine, fuelwood among others as many people trade on their products. The rate of deforestation was put at about 400,000 ha per annum (Akachuku, 1997). Such large areas cannot be dismissed as irrelevant to the conservation of species diversity because they support biota (Ayem, 1979). The savanna region of the country has continued to experience desertification, causing decrease in biological potential and deterioration of ecosystem.

Research into the ecology of the Nigerian arid and savanna zones have been intensified in recent times in order to meet the rising demand for industries and environmental stability (Milligam and Sule, 1980; Oguntala *et al.*, 1995.)

One of the problems of conservation is the large number of taxa, many seemingly of no practical value at the present. It is a common knowledge that a plant of known economic importance (such as food, medicine and shade) to a region is often not easily destroyed when clearing for agricultural or building purpose (Bakare and Oguntala, 1993). With all the advances made in the usage and conservation of trees, the practice of uncontrolled timber exploitation by man is increasing which also increase environmental problems. This paper therefore highlights some

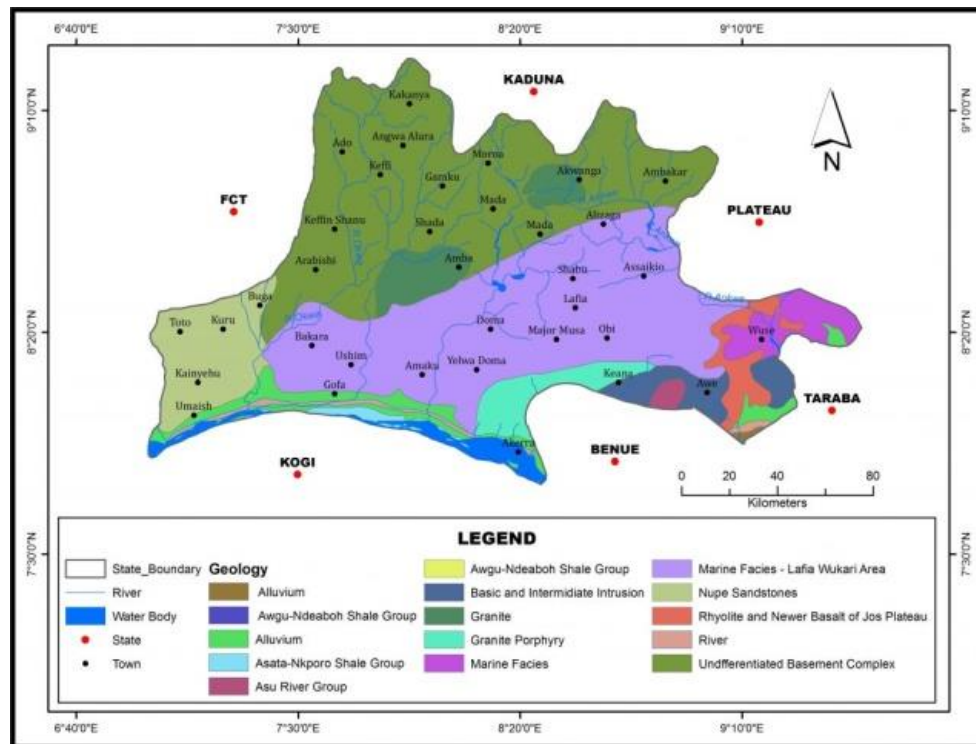
of the valuable economic tree species commonly used by the people within and around Lafia North Development Area (LNDA) to serve as a stimulus for the sustainable management of the trees.

**MATERIALS AND METHODS**

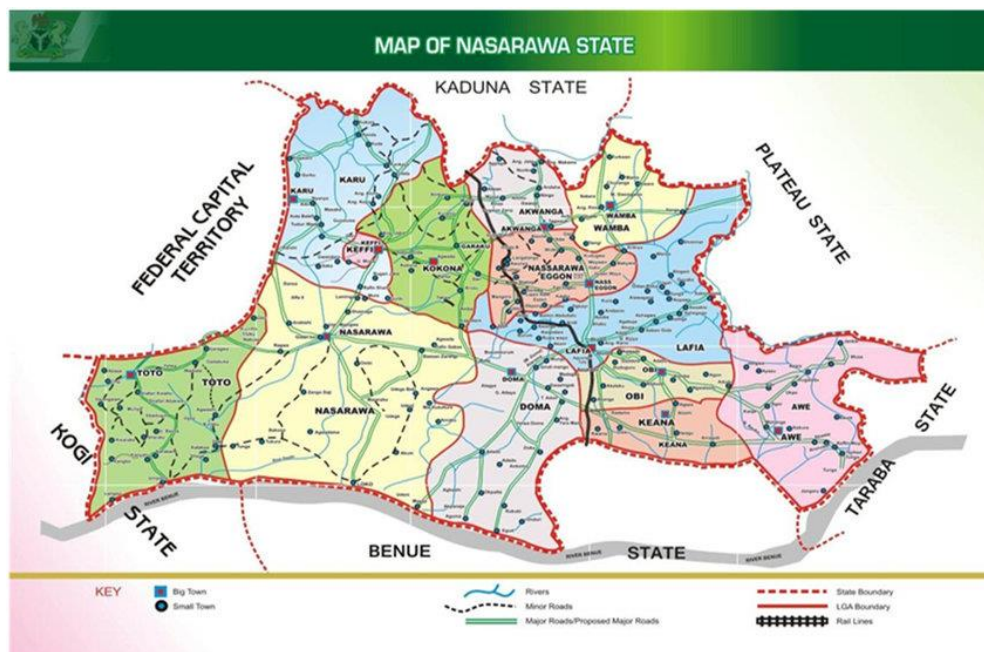
**Study Area**

LNDA, which is located between latitude 8° 20'N - 8° 38'N and between longitudes 6° 34'E - 7° 30'E. It shares boundaries with Nasarawa Eggon and towns/villages that comprise the area are

Shabu, Kwandare, Azoba, Awoma, Kafinwambai among others (Figure 1 and 2). The climate exhibited in the area shows no difference from that experienced over other parts of Nasarawa State, which is characterized by a sub-humid climate with two distinct seasons; dry and rainy season (Akwa *e tal.*, 2005). The area falls within the guinea savanna zone characterized by scattered trees and visits were made to the forestry section of the Department of Agriculture and natural resources to obtain information on the management and utilization of trees within LNDA.



**Fig.1. Map of Nasarawa State Showing Local Government and Development Areas**



**Figure 2. Map of Nasarawa State showing Local Government, Development Areas and Villages**

### Experimental Design

Appraisal of the economically valuable trees was obtained from Eight communities within LNDA. On each occasion the plants collected from each area were displayed for enquiry from the people on local names and uses of the trees. The trees were identified and confirmed by the use of Hausa Names for plants and tree a draft-prepared for comment (Anonumus2007) while medicinal uses were conformed using a pilot study on medicinal plants used and the perception of plant endangerment by the traditional medicine practitioners in Nasarawa State (Jamilat et-al 2016), and some of the vernacular names were also confirmed using Gbile (1980).

### Data Analysis

The data obtained from the study were analyzed using MS-DOS application Epi6-info version 6.04

### RESULTS

Information on 30 Trees species belonging to 20 Families were obtained as shown in table 1. To ease communication between scientists and local people, most medicinal plant and plant publication contain local names of the plants (Burkill, 1994, 1995 and 2000).

**Table 1: Economically Value Trees in Lafia North Development Area (LNDA)**

S/No.	Common names	Families	Scientific Names	Local names	Part used	Uses
1	Neem	Meliaceae	<i>Azadirachta indica</i>	Dogon yaro	Leaves and stem	Leaves: as medicine for fever and also used locally in pest and disease control Stem: as timber and fuel wood.
2	Baobab	Bombacaceae	<i>Adansonia digitata</i>	Kuka	S/bark and	Leaves: as food, immune booster and also use in treating sickle cell anemia, constipation and ulcer
3	Shea butter	Sapotaceae	<i>Vitellaria paradoxa</i>	Kadanya	Fruit, s/bark and seed	Fruit: as food S/bark and seed as medicine and cream
4	Calotropis tree	Apocynaceae	<i>Calotropis procera</i>	Tunfafiya	Roots	Use for treating gonorrhoea, spiritual diseases
5	Cassia	Leguminosae	<i>Cassia occidentalis</i>	Rairai	Leaves	Use for medicine of fever
6	Ficus tree	Moraceae	<i>Ficus gnaphalocarpa</i>	Baure/cediya	Leaves	Infertility, stomach ache
7	Ficus	Moraceae	<i>Ficus platyphylla</i>	Gamji	Leaves and S/bark	Leaves: Body pains, fertility, spiritual diseases S/bark: Cell anemia, pile, spiritual diseases
8	Mahogany	Malvaceae	<i>Khaya senegalensis</i>	Madachi	S/bark and stem	S/bark: Stomach disturbance, Venera diseases. Stem: use as timber and fuel wood.
9	Piliostigma	Leguminosae	<i>Pilistigma reticulatum</i>	Kalgo	Leaves Root Seeds	Leaves: Children convulsion, dysentery Root: Stomach ache Seeds: Pains in the body, spiritual diseases
10	Tamerind	Leguminosae	<i>Tamarindus indica</i>	Tsamiya	Fruit and stem	Use as food and medicine while the stem is use for fuel wood
11	Palm	Palmaceae	<i>Elacis guineensis</i>	Kwara	Roots and Fruits	Roots: used as medicine for pile Fruits: used for food
12	Guava	Myrtaceae	<i>Psidium guagava</i>	Gyaba	Fruits and Leaves	Fruits: used for food which also save as source of vitamin Leaves: use as medicine for pile and dysentery
13	Locust bean	Leguminosae	<i>Phakia biglobosa</i>	Doorooowa	Fruits and Roots	Fruits: used for food as spices Roods: used for medicine of yellow fever
14	Black fruits	Verbenaceae	<i>Vatex doniyana</i>	Dinya	Fruits and S/bark	Fruits: mature fruits are used for food which are also prepared into drink S/bark: is use in treating leprosy
15	Cashew	Anacardiaceae	<i>Anacardium occidentale</i>	Yazawa	Fruits and stem	Fruits: used for food Stem: used for fuel wood

S/No.	Common names	Families	Scientific Names	Local names	Part used	Uses
16	Mango	Anacardiaceae	<i>Magnifera indica</i>	Mangwaro	Fruits, Leaves and S/bark	Fruits: are used as food Leaves and S/bark: are use in treating constipation
17	Orange	Rutaceae	<i>Citrus spp</i>	Laimu	Fruits	Use for food
18	Daniela	Fabaceae	<i>Daniella oliveri</i>	Kadaura	Bark and stem	Bark: used as medicine for high blood pressure Stem: use as timber
19	Gum Arabic	Fabaceae	<i>Acacia nilotica</i>	Baggarua	Roots, bark and leaves	Generally used as antibacterial and antifungal
20	Mjohoro	Cassiadeae	<i>Cssia spectabilis</i>	Wawanmata	Stem	Used for fuel wood, Charcoal, poles and medicine
21	Coconut	Palmaceae	<i>Cocos nucifera</i>	Kwakwa	Fruits	Used for food and converted to juice
22	Teak	Lamiaceae	<i>Tectona grandis</i>	Asawaki	Leaves and Stem	Leaves: used in repining local food Stem: used for timber, firewood and poles
23	Gmalina	Lamiaceae	<i>Gmalina arborea</i>	Malaina	Stem	Used for firewood, timber and poles
24	Uapaca	Euphorbiaceae	<i>Uapaca guineensis</i>	Binida zugu	Leaves and stem	Use for spiritual diseases
25	African myrrh	Burseraceae	<i>Commiphora africana</i>	Durumi	Leaves Fruits Roots S/bark	Leaves:used for animal feed Fruits:used for treatment of typhoid and as remedy for stomach problem Roods: are peeled and chewed raw like cassava mainly by children and herdsmen S/bark: is brewed to make a red tea
26	Henna tree	Lythraceae	<i>Lawsonia inermis</i>	Lalle	Leaves Flower	Used in dying skin,hair and fingernails as well as fabrics including silk, wool and leather
27	Moringa	Moringaceae	<i>Moringa oleifera</i>	Zogale	Leaves Flower Seeds Roods	These are generally for treating diabetes,long-lasting inflammation, bacterial, viral and fungal infections, joint pain, heart health and cancer.
28	Ecalyptus	Myrtaceae	<i>Eucalyptus camaldensis</i>	Falwaya	Leaves	Used in treating coughs, colds, fever and congestion
29	Newbouldia	Bignoniaceae	<i>Newbouldia laevis</i>	Aduruku	Leaves S/bark	Leaves: used for treatment of coughs,dialarhoea and dysentery. It is also given to children for treating epilepsy and convulsions S/bark: used for treatment of constipation and piles
30	Tomentosa	Fabaceae	<i>Acacia noletica</i>	Rai dore	Leaves	Used in treating coughs, colds and fever

Note: All trees and shrubs are been used for fuelwood which save as the only source of fire wood

## DISCUSSION

It appears from the study that 12 trees species out of the 30 trees species belonging to 9 families were used for food and or combination of both food and medicine. According to Gbile et al (1985), medicinal plants are prepared in form of powder, decoction, soup and majority of them are used in mixtures of or concoctions of materials while a few are used as single. More than 20 uses of tree were recorded which include medicinal use for fever, cough hemorrhoids, uses as timber, fuel wood among others. The use of herbal extracts of medicinal plants for treatment of ailments have been reported by several workers such as Gbile (1989), Adodo (2004), Ugboguet *al* (2004) and Ugboguet *al* (2004).

## CONCLUSION

This study has helped in determining many plants of economically importance in the study area. Lafia North Development Area at the moment has no management plan involving Trees and Forest withing the development area.

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Environmental education of the communities and their involvement in Trees and forest management policy formulation and implementations would be most essential. Forest management policies should be shaped through a convergence of institutional interests among the stakeholders, communities, local government, development areas, national government and international agencies. This convergence of interests should be recognized in an effort to ensure sustainable management of forest and forest resources.

## RECOMMENDATION

This study recommends the involvements of the local communities and its people in the conservation and management of trees and forest resources. Lafia North Development Area needs to have a working and or management plan which will guide both government and the general public on the conservation of forest and forest resources.

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