

# Ethnobotanical Survey of Edible Plants Sold in Katsina Metropolis Markets

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**Abstract:** *Ethnobotanical survey was carried out to document food plants sold in Katsina metropolis Markets. The Three surveyed markets were: Kofar marusa market, Central Market and Tsohuwar Kasuwa market. Data were gathered through oral interviews with the food plant sellers using questionnaire especially designed for this purpose. Results obtained showed that a total of 54 plants belongs to 33 families were identified. Kofar Marusa Market has the highest plants species (40 plants species) followed by Tsohuwar Kasuwa market (39 plants species) and the least was Central Market (35 plants species) The most used plants were belonging to Fabaceae, (5 species), followed by Anacardiaceae, Solanaceae, Rutaceae, Cucurbitaceae and Poaceae (3 species each) Alliaceae, Aracaceae, Malvaceae, Sapotaceae (2 species). Other families included were Caricaceae, Zingiberaceae etc. Some of the plant species are of medicinal important amongst are Citrus limon treats deworms, Cocos nucifera treats Anti-poison/neutralizes poison, Measles, Allium sativum treats Cattarh, cold, cough and Antibiotic and other treats various diseases.*

**Keywords:** Ethnobotanical survey, food plants, markets, medicinal plants

## 1. Introduction

Ethnobotany is the study of the relationship between plants and people: from “ethno” – study of people and “botany” – study of plants. It is totally in virtually a new field of research, if in this field plants investigated thoroughly and systematically, it will yield result of great value of the archeologists, anthropologist, plant geographer, ethnobotanist, linguistics, botanists and phytochemists. The focus of ethnobotany is on how plants have been or are used, managed and perceived in human societies and includes plants used for food, medicine, cosmetics, dying, textiles, for building, tools, currency, clothing, rituals life and music. It also studies the relationship of a particular culture and region make of use of indigenous plants [1]. The relationship between plants and human cultures is not limited to the use of plants for food, clothing and shelter but also includes their use for religious ceremonies, ornamentation and health care [2]. In a particular ethnic group, information concerning certain plant varies from one ethnic group to another [3], [4]

In the past, ethnobotanical research was predominately a survey of the plants used by villagers. A trained botanist identified the plants and recorded their used. Sometimes an anthropologist was present to translate the disease description, but rarely was a physician available to identify the disease. The results generated a list of plants and their uses which was published in professional journal, usually in the country of the scientist. Nothing was communicated or returned to the cultural group in exchange for their participation in the survey, nor was any environmental or cultural status or concerns included in the survey. Basic quantitative and experimental ethnobotany includes basic documentation, quantitative evaluation of use and management and experimental assessment.

Today, ethnobotanical survey include applied projects that have the potential to ameliorate poverty levels of these people, allowing them to make more educated decisions about their future directions. These new approaches enhance the quality of the science, provide compensation for the

cultural groups and take into account environmental concerns. This modern approach is based on an interdisciplinary team usually composed of an ethnobotanist, an anthropologist, an ecologist and a physician. Some of these team members are remote area colleagues who have arranged the details of the expedition as well as the contractual agreements for reciprocal programs of the village or community. The field of ethnobotany requires a variety of skills: botanical training for the identification and preservation of plants specimens; anthropological training to understand the cultural concept around the perception of plants; linguistic training, at least enough to transcribe local terms and understand native morphology, syntax and semantics. Native healers are often reluctant to accurately share their knowledge to outsiders [5].

The biological diversity of our world is great and we have only begun to investigate her potential. In some areas, diversity may be more valuable in its natural state that when used of pasture or timber [6]. Methods to identify medicinal plants include random screening, taxonomic collecting (sampling by botanical family) or ethnobotanical collecting. It has been shown that ethnobotanically-derived compound have greater activity that compounds derived from random screening and therefore a greater potential for product development. Plants are being used as valuable sources of food and medicine for the prevention of illness, and maintenance of human health.

The importance of plants in medicine remains even of greater relevance with the current global shift to obtain drugs from plant sources, as a result of which attention has been given to the medicinal value of herbal remedies for safety, efficacy and economy [7], [8]. The World Health Organization (WHO., 1992) emphasized the need to ensure the quality control of plant products by using modern techniques and applying suitable standards [9]

The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of the

earth due to the advent of modern technology and transformation of traditional culture. There is an urgent need to document the ethno-biological information presently existing among the diverse communities before the traditional knowledge are completely lost [10]. Much of this wealth of knowledge is totally becoming lost as traditional culture gradually disappears [11]. Thus, there is now urgency for ethno-botanical research amongst people [12].

In recent years, traditional ethno-botanical studies have received much attention due to their wide local acceptability and clues for new or less known medicinal plants [13]. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethno botanists.

The aim (s) of the research are as follows: -

- 1) To identify and document edible plants sold in Katsina metropolis markets
- 2) To identify and access the major ethno-medicinal plants of the study area so as to document the indigenous knowledge and use of ethno-medicinal plants in the treatment of various human ailments.

## 2. Methodology

### 2.1 Study Area

Katsina (12° 59'N, 7° 36'E); with a total area of 142 km<sup>2</sup>; is a city (formerly a city-state), and a Local Government Area in northern Nigeria, and is the capital of Katsina State. It is located some 256,50 km east of the city of Sokoto, 135,18 km northwest of Kano, close to the border with Niger. As of 2007, Katsina's estimated population was 459,022 (2006 population census). The city is the centre of an agricultural region producing groundnuts, cotton, hides, millet and guinea corn, and also has mills for producing peanut oil and steel. The city is largely Muslim and the population of the city is mainly from the Fulani and Hausa ethnic groups. The survey was carried out in three market of katsina metropolis; namely Kofar Marusa Market, Central Market and Tsohuwar kasuwa market.

### 2.2 Method of Data Collection

The field methodological framework chosen for this research was that used in ethnobiology [14]-[16] and based on methods given by [17], semi-structured interviewees, observation and guided field walks with informants were employed to obtain ethnobotanical data. Field research was conducted by collecting ethnobotanical information during structured and semi-structured interviews with knowledgeable people native in each site territory. For each plant recorded one questionnaire was filled. Even though, a structured questionnaire had to be filled direct questions were avoided. The basic information needed was taken during the conversation.

No special selection criteria were used in the choice of the informants because one of the aims of this work was to assess the breadth of popular heritage in the field of wild edible plants, knowledge which is widespread among locals.

However, most of the interviewees were between 40-60 years old, and are not settlers of Katsina metropolis.

Plant data and their related information were entered into a data base. The data acquired for each plant comprise the common local name, its uses, the part of the plant used. Frequency (F%) of each of the collected plant species was estimated as the total number of its records in the studied markets.

The way plants were collected, preserved, stored and the most relevant processes were photographed. The data collected were derived from questionnaire administration and oral interview of the food plants sellers in Kofar marusa market, Central Market and Tsohuwar Kasuwa market. The respondents were both men and women of various ages. Data obtained were collated and arranged to give the botanical names, common names, families and the local names as well as their uses and the part(s) used.

During oral interview the questions to the respondents are their names, name of plants he/she is selling, knowledge of medicinal uses of the plants, part used and the use of the plants. The respondents cooperate in answering questions. During the survey plants that of ethnomedicinal important are also included, food plants sellers that has knowledge on ethnomedicinal plants are interviewed for local name of the plant, part used and disease cure by the plant.

Plant identification was given by Professor Monier Abd El-Ghani, consulting different available literature on ethnobotanical surveys in Nigeria.

## 3. Results

A total of 54 plant species belongs to 33 families were identified from the 3 studied markets (Table 1). The total number of species varied from one market to another: 35 in Central Market, 40 in Kofar Marusa Market, and 39 in Tsohuwar Kasuwa Market.

Eighteen species were constantly recorded from all the three studied markets (F=100%) including amongst others *Hibiscus esculentus*, *Allium sativum*, *Magnifera indica* and *Capsicum annum*. Twenty five species were recorded in two markets (F=66.66%), amongst others, *Brassica oleracea* var. *capitata* (Market 1 and 2), *Crysophylum albedom* (Market 2 and 3), *Vernomia amygdalina* (Market 1 and 3). Ten species were recorded only in one market (F=33.33%), of which six species were occurred in Market 1, and 4 species in Market 2 (see Table 2).

The most used plants was belonging to Fabaceae (5 species), among which are *Arachis hypogeeae*, *Tamarindus indica* and *Parkia biglobosa* were recorded. Anacardiaceae (3 species), among which *Magnifera indica* and *Anarcadium occidentale* were recognized. Solanaceae (3 species), of which *Capsicum annum* and *Lycopersicum esculentum* can be mentioned. Rutaceae (3 species) included *Citrus sinensis* and *Cinrus limon* were recorded. Cucurbitaceae (3 species) among which *Cucurbita maxima* and *Citrullus lanatus* were recognized. Poaceae (3 species) among which are *Oryza sativa*, *zea mays*. Alliaceae which are *Allium cepa* and

*Allium sativum* Aracaceae which are *Cocus nucifera* and *Ealais guinensis*. Malvaceae which are *Hibiscus sabdariffa* and *Hibiscus esculentus*. Sapotaceae (2 species) which included *Vitalleria paradoxa* and *Crysophylum albedum*. Similar observation can be made on the other families. Fruits of twenty four species were used, these included *Magnifera indica*, *Anarcadium occidentale* and *Capsicum annum*. Leaves of 9 species were used such as *Amaranthus caudatus*, *Adansonia digitata* and *Crateva religiosa*. Seeds

of four species were used included *Arachis hypogea* and *Phaseolus vulgaris*. The least used plant parts were nuts, tuber (two species of each). Some of the plant species were used to treat various diseases amongst were *Citrus limon* treats deworms, *Cocus nucifera* treats Anti-poison/neutralizes poison, Measles, *Allium sativum* treats Cattarrh, cold, cough and Antibiotic, and others can be used to treat different diseases (Table 2).

**Table 1:** Local name, Scientific name, Common name, family name and part used of each plant species.

| Scientific Name                        | Common Name        | Family           | Local Name   | Part used             | 1 | 2 | 3 | F%    |
|--|--------------------|------------------|--------------|-----------------------|---|---|---|-------|
| <i>Hibiscus esculentus</i>             | Okra               | Malvaceae        | Kubewa       | seeds,young pods      | + | + | + | 100   |
| <i>Allium sativum</i>                  | Garlic             | Alliaceae        | Ramuza       | flowers, leaves,seeds | + | + | + | 100   |
| <i>Allium cepa</i>                     | Onion              | Alliaceae        | Albasa       | Bulb                  | + | + | + | 100   |
| <i>Amaranthus caudatus</i>             | Waterleaf          | Amaranthaceae    | Alayyafoo    | leaves, seeds         | + | + | + | 100   |
| <i>Anarcadium occidentale</i>          | Cashew             | Anarcardiaceae   | Yazawa       | Fruit                 | + | + | + | 100   |
| <i>Arachis hypogea</i>                 | Groundnut          | Fabaceae         | Gyada        | Seeds                 | + | + | + | 100   |
| <i>Capsicum annum</i>                  | Chili pepper       | Solanaceae       | Tattasai     | Fruit                 | + | + | + | 100   |
| <i>Citrus limon</i>                    | Lime               | Rutaceae         | Lemun tsami  | fruit,juice           | + | + | + | 100   |
| <i>Citrus paradise</i>                 | Grape              | Rutaceae         | Lemu yamiku  | Seeds                 | + | + | + | 100   |
| <i>Cucurbita maxima</i>                | Pumpkin            | Cucurbitacea     | Kabeewaa     | Fruit                 | + | + | + | 100   |
| <i>Hibiscus sabdariffa</i>             | Roselle            | Malvaceae        | Yakuwa       | leaves,flower         | + | + | + | 100   |
| <i>Lycopersicum esculentum</i>         | Tomato             | Solanaceae       | Tumatur      | Fruit                 | + | + | + | 100   |
| <i>Magnifera indica</i>                | Mango              | Anarcardiaceae   | Mangwaro     | Fruit                 | + | + | + | 100   |
| <i>Manihot esculanta</i>               | Cassava            | Euphorbiaceae    | Rogo         | Tubers                | + | + | + | 100   |
| <i>Oryza sativa</i>                    | Rice               | Poaceae          | Shinkafa     | Grains                | + | + | + | 100   |
| <i>Solanum melongena</i>               | Garden-egg         | Solanaceae       | Yalo         | Fruit                 | + | + | + | 100   |
| <i>Zea mays</i>                        | Maize              | Poaceae          | Masara       | silk, corn            | + | + | + | 100   |
| <i>Zingiber officinale</i>             | Ginger             | Zingiberaceae    | Citta        | Root                  | + | + | + | 100   |
| <i>Adansonia digitata</i>              | Baobab             | Bombaceae        | Kuka         | leave,fruit           | - | + | + | 66.66 |
| <i>Annona senegalansis</i>             | Wild custard apple | Annonaceae       | Gwandan daji | fruit, leaves         | + | + | - | 66.66 |
| <i>Brassica oleracea var. capitata</i> | Cabbage            | Brassicaceae     | Kabeji       | leaves                | + | + | - | 66.66 |
| <i>Citrus sinensis</i>                 | Orange             | Rutaceae         | Lemun Zaki   | Fruit                 | + | - | + | 66.66 |
| <i>Cocus nucifera</i>                  | Coconut            | Arecaceae        | Mosara       | Nut                   | - | + | + | 66.66 |
| <i>Cola nitida</i>                     | Kolanut            | Sterculiaceae    | Goro         | Fruit                 | - | + | + | 66.66 |
| <i>Colocynthis citrullusegusi</i>      | Melon seeds        | Cucurbitaceae    | Agushii      | Seeds                 | + | - | + | 66.66 |
| <i>Crateva religiosa</i>               | Sacred barma       | Capparaceae      | Ungududu     | Leaves                | - | + | + | 66.66 |
| <i>Crysophylum albedum</i>             | Star apple         | Sapotaceae       | Agwaliba     | Fruit                 | - | + | + | 66.66 |
| <i>Daucus carota</i>                   | Carrot             | Apiaceae         | Karas        | Root                  | + | + | - | 66.66 |
| <i>Dioscorea alata</i>                 | Water yam          | Dioscoreaceae    | Dugura       | Tubers,leaves         | + | - | + | 66.66 |
| <i>Ealais guinensis</i>                | Palm kernel        | Arecaceae        | Kwakwa       | Nut                   | + | - | + | 66.66 |
| <i>Euphorbia balsamifera</i>           | Spurge             | Euphorbiaceae    | Aliyara      | Leaves                | - | + | + | 66.66 |
| <i>Ficus exasperate</i>                |                    | Moraceae         | Baure        | Fruit                 | - | + | + | 66.66 |
| <i>Moringa oleifera</i>                | Horseradish        | Moringaceae      | Zogale       | Leaves                | - | + | + | 66.66 |
| <i>Parkia biglobosa</i>                | Locust bean seed   | Fabaceae         | Kalwa        | Fruit                 | - | + | + | 66.66 |
| <i>Phaseolus vulgaris</i>              | Grean bean         | Fabaceae         | Grean bean   | Seeds                 | + | + | - | 66.66 |
| <i>Piper guinenses</i>                 | Black pepper       | Piperaceae       | Uda          | seeds,leaves          | + | - | + | 66.66 |
| <i>Psidium guajava</i>                 | Guava              | Myrtaceae        | Gwaba        | Fruit                 | - | + | + | 66.66 |
| <i>Saccarum officinarum</i>            | Sugar cane         | Poaceae          | Rake         | Stem                  | - | + | + | 66.66 |
| <i>Tamarindus indica</i>               | Tamarind           | Fabaceae         | Tsamiya      | Fruit                 | - | + | + | 66.66 |
| <i>Vernonia amygdalina</i>             | Bitter leaf        | Asteraceae       | Shuwaka      | Leaves                | + | - | + | 66.66 |
| <i>Vitalleria paradoxa</i>             | Shea tree          | Sapotaceae       | Kadanya      | Fruit                 | - | + | + | 66.66 |
| <i>Xanthosoma sagittifolium</i>        | Cocoyam            | Araceae          | Gwaza        | root                  | - | + | + | 66.66 |
| <i>Citrullus lanatus</i>               | Water melon        | Cucurbitacea     | Kankana      | Fruit                 | + | - | - | 66.66 |
| <i>Ananas comusus</i>                  | Pineapple          | Bromeliaceae     | Abarba       | Fruit                 | + | - | - | 33.33 |
| <i>Carica papaya</i>                   | Pawpaw             | Caricaceae       | Gwanda       | Fruit                 | + | - | - | 33.33 |
| <i>Diospyros mespiliforms</i>          | Jacka berry        | Ebanaceae        | Kanya        | fruit,leaves          | - | + | - | 33.33 |
| <i>Lanea microcarpa</i>                | Dahomey            | Anarcardiaceae   | Faru         | Fruit                 | + | - | - | 33.33 |
| <i>Leptadenia hastate</i>              |                    | Aslepiadaceae    | Yadiya       | Leaves                | - | + | - | 33.33 |
| <i>Musa paradisiacal</i>               | Plantain           | Musaceae         | Ayaba        | Fruit                 | + | - | - | 33.33 |
| <i>Musa sapientum</i>                  | Banana             | Musaceae         | Ayaba        | Fruit                 | + | - | - | 33.33 |
| <i>Parinari macrophylla</i>            | Tree               | Chrysobalanaceae | Gawasa       | Fruit                 | - | + | - | 33.33 |
| <i>Senna obtusifolia</i>               | Sickle pod         | Fabaceae         | Tafasa       | Leaves                | - | + | - | 33.33 |
| <i>Sesamum orientale</i>               | Sesame leaves      | Pedaliaceae      | Karkashi     | Leaves                | + | - | - | 33.33 |

Market 1= Central Market  
 Market 2= Kofar Marusa Market  
 Market 3= Tsohuwar Kasuwa Market  
 + = Present; - = Absent

**Table 2:** Some major ethnomedicinal plants of Katsina metropolis, their Botanical/Local names, Medicinal used and part used

| Scientific Name                 | Local name      | Medicinal uses                             | Part used    |
|---------------------------------|-----------------|--|--------------|
| <i>Hibiscus esculentus</i>      | Kubewa          | Sperm count fever                          | Fruit leaves |
| <i>Allium cepa</i>              | Albasa          | Hypertension, measles and cough            | Bulb         |
| <i>Allium sativum</i>           | Tafarnuwa       | Cattarrh, cold, cough and Antibiotic       | Bulb         |
| <i>Amaranthus caudatus</i>      | Alaiyafoo       | Blood tonic                                | Leaves       |
| <i>Ananas comusus</i>           | Abarba          | Anti-hypertension/constipation             | Unripe fruit |
| <i>Anarcadium occidentale</i>   | Yazawa          | High cough                                 | Bark, Fruit  |
| <i>Annona senegalansis</i>      | Gwandan daji    | Snake bite, yellow fever and hernia        | Stem         |
| <i>Anogeissus leiocarpus</i>    | Marke           | Ulcer/Pile                                 | Bark         |
| <i>Azadiracta indica</i>        | Dogon yaro/Bedi | Yellow fever                               | Leaves       |
| <i>Balanites aegyptiaca</i>     | Aduwa           | Bladder stone                              | Fruit        |
| <i>Boswelia dalzelia</i>        | Hano            | Yellow fever                               | Bark,leaves  |
| <i>Calotropis procera</i>       | Tumfafiya       | Scorpion sting, finger ache (witlow)       | Leaves       |
| <i>Carica papaya</i>            | Gwanda          | Boil purgative                             | Unripe fruit |
| <i>Cassia tora</i>              | Tafasa          | Pile and stomach trouble                   | Leaves       |
| <i>Citrullus lanatus</i>        | Kankana         | Laxative digestion, pile                   | Fruit,seeds  |
| <i>Citrus limon</i>             | Lemun tsami     | Deworm                                     | Fruit        |
| <i>Citrus paradise</i>          | Lemu yamiku     | Anti body                                  | Fruit        |
| <i>Citrus sinensis</i>          | Lemun Zaki      | Scurvy                                     | Fruit        |
| <i>Cocus nucifera</i>           | Kwakwa          | Anti poison/neutralizes poison, Measles    | Nut          |
| <i>Cola nitida</i>              | Goro            | Stimulant                                  | Fruit        |
| <i>Combretum micranthum</i>     | Geza            | Desyntry, Abdominal pain in nursing mother | Leaves       |
| <i>Corchorus olitorius</i>      | Lalo            | Blood purifier                             | Leaves       |
| <i>Cryosophylum albedum</i>     | Agwaliba        | Anti nausea                                | Fruit        |
| <i>Cucurbita maxima</i>         | Kabeewaa        | Skin disease                               | Stem         |
| <i>Daucus carota</i>            | Karas           | Pile, blood tonic                          | Fruit        |
| <i>Dialium guinenses</i>        | Tsamiyar Biri   | Anti ulcer                                 | Fruit        |
| <i>Dioscorea alata</i>          | Dugura          | Fever                                      | Leaves       |
| <i>Diospyros mespiliforms</i>   | Kanya           | Pile, Diarrhoea                            | Unripe fruit |
| <i>Ealais guinensis</i>         | Kwakwan Manja   | Easy flow menses                           | Nut          |
| <i>Euphorbia balsamifera</i>    | Aliyara         | Pile, stomach pain                         | Leaves       |
| <i>Gacinia kola</i>             | Namijin Goro    | Cough                                      | Fruit        |
| <i>Guiera senegalensis</i>      | Sabara/Barbarta | Ulcer, Pile                                | Leaves       |
| <i>Hibiscus sabdariffa</i>      | Sobo            | Anti heptertension                         | Flower       |
| <i>Ipomoea batatas</i>          | Dankali         | Pile                                       | Leaves       |
| <i>Jatropha curcas</i>          | Cinda zugu      | Stomach pain                               | Leaves       |
| <i>Lansea microcarpa</i>        | Faru            | Dressing wound, swelling                   | Leaves       |
| <i>Lenea acida</i>              | Faru            | Yellow fever, pile                         | Leaves       |
| <i>Leptadenia hastate</i>       | Yadiya          | Hypertension,cattarrh and skin disease     | Leaves       |
| <i>Magnifera indica</i>         | Mangwaro        | Diarrhoea and Dysentry                     | Leaves       |
| <i>Manihot esculanta</i>        | Rogo            | Diabetics                                  | Tuber        |
| <i>Moringa oleifera</i>         | Zogala          | Abdominal Disorders                        | Leaves       |
| <i>Musa paradisiaca</i>         | Plantain        | High iron potent astringent                | Fruit        |
| <i>Musa sapientum</i>           | Ayaba           | High blood pressure                        | Fruit        |
| <i>Parinari macrophylla</i>     | Gawasa          | Stomach trouble                            | Fruit        |
| <i>Parkia biglobosa</i>         | Kalwa           | Snake Venom                                | Seeds        |
| <i>Phoenix dactylifera</i>      | Dabino          | Worms, bleeding                            | Fruit,seeds  |
| <i>Piper guinenses</i>          | Uda             | Cleanse womb                               | Seeds,leaves |
| <i>Psidium guajava</i>          | Gwaba           | Reduce frigidity/Allergy                   | Fruit        |
| <i>Salonum melongena</i>        | Yalo            | Kidney problem, pile, lower sugar content  | Fruit        |
| <i>Solanum lycopersicum</i>     | Tumatur         | Anti hypertension                          | Fruit        |
| <i>Vernomia amygdalina</i>      | Shuwaka         | Rheumatic pains                            | Leaves       |
| <i>Xanthosoma sagittifolium</i> | Gwaza           | Anti hypertension                          | Tuber        |
| <i>Zingiber officinale</i>      | Citta           | Detoxify liver bronchitis, cough           | corm         |

#### 4. Discussion

Result from the study shows that leaves were found to be the most used plant part for medicinal remedy. This is in

consistent with the findings of other ethno-medicinal studies in Africa like Uganda, Ethiopia and Mali [18].

More than one plant species have been reported to be used by healers in remedy preparation for various ailments. This

could attributed to additive or synergistic effect that they could have during treatment [19].

Ethnobotany is very helpful in identifying and solving conservations issues, as in cases where the harvesting rate exceeds the re-growth rates. It is prosperous to conserve the medicinal plants, which were harvested [20]. This is in favor of the coming generations, so that they could benefit from this treasure of God, which is a real gift and blessing of nature for mankind. In modern times it is alarming that the knowledge of ethnobotany is disappearing rapidly. Westernization, collapse of traditional cultures and yet the destruction of entire ethnic groups are to blame [21]. A principal aim of such a study is to make sure that local natural history becomes a living tradition in communities; it is being transmitted rally from time to time. The results of this work can later be applied to biodiversity, conservation and community development [22], [23].

The procedure used in this study was similar to that of [24] who studied the ethnobotanical potentials of some cultivated plants in Chung region. Anti diabetic potentials of some of these plants cited in this study have been previously reported [25], [26]. The anti diabetic activity of aqueous leaves of *Magnifera indica* had been reported by [27]. But the antidiabetic effects of other plants like *Calotropis procera* and *Cassia gorantensis* have never been reported to our knowledge

## 5. Conclusion

The field of food plant gathering is new in Nigeria in the field of ethnobotany and food plants are neglected in ethnobiological studies especially in the study area. In this research, some plants of medicinal importance more particularly those used in ethno medicine in the study area were assessed; other uses of plant are also mentioned. There is a strong need for collection and documentation of this knowledge, sufficient study is needed

## References

- [1] Lowe, H., 2000. Jamaica's Ethnomedicine: Its Potential in the Healthcare System. Canoe Press, Barbados, NA., ISBN-13: 978-9768125712, Pages: 170.
- [2] Schultes, R.E., 1992. Ethnobotany and Technology in Northwest Amazon: A Partnership. In: Sustainable Harvest and Marketing of Rain Forest Products, Plotkin, M., L. Famolare and S. Mori (Eds.). Island Press, Washington, DC., USA., ISBN-13: 978-1559631686, pp: 45-76.
- [3] Tor-Anyiin, T.A., R. Shaato and H.O.A. Oluma, 2005. Ethnobotanical survey of antimalarial medicinal plants amongst the Tiv people of Nigeria. J. Herbs Spices Med. Plants, 10: 61-74.
- [4] Igoli, J.O., O.G. Ogaji, T.A. Tor-Anyiin and N.P. Igoli, 2005. Traditional medicine practice amongst the Igede people of Nigeria Part II. Afr. J. Trad. Comp. Altern. Med., 2: 134 -152.
- [5] Jose San, M.A., 1983. Medicinal plants in central Chile. Econ. Bot., 37: 216-227.
- [6] Peters, C.M., A.H. Gentry and R.O. Mendelsohn, 1989. Valuation of an Amazonian rainforest. Nature, 339: 655-656.
- [7] Glombitza, K.W., G.H. Mahran, Y.W. Mirhom, K.G. Michel and T.K. Motawi, 1993. Hypoglycemic and antihyperglycemic effects of *Zizyphus spina-christi* in rats. Planta Medica, 60: 244-247.
- [8] Mahabir, D. and M.C. Gulliford, 1997. Use of medicinal plants for diabetes in Trinidad and Tobago. Rev. Panam Salud Publica, 1: 174 -178.
- [9] WHO., 1992. Expert committee on specification for pharmaceutical preparation report. World Health Organization (WHO), WHO Technical Report Series, No 823, Geneva, pp: 44-76.
- [10] Rao, R.R., 1996. Traditional knowledge and sustainable development: Key role of ethnobiologists. Ethnobotany, 8: 14 -25.
- [11] Hamilton, A., 1995. The People and Plants Initiative. In: Ethnobotany: A Methods Manual, Martin, G.J. (Ed.). WWF International, Chapman and Hall, London, UK., ISBN-13: 9780412483707, pp: 10-11.
- [12] Maheshwari, J.K., 1983. Development in ethnobotany Editorial. J. Econ. Taxon. Bot., 4: 1-4.
- [13] Tripathi, Y.C., 2000. Ethnomedicinal treasure of tribal Rajasthan. J. Non-Timber Forest Prod., 7: 77 -84.
- [14] Martin, G.J., 1995a. Ethnobotany: A People and Plants Conservation Manual. Chapman and Hall, New York, USA.
- [15] Cotton, C.M., 1996. Ethnobotany: Principles and Applications. John Wiley and Sons Ltd., Chichester, New York, USA., ISBN-13: 978-0471955375, Pages: 424.
- [16] Alexiades, N.M. and J.W. Sheldon, 1996. Selected Guidelines for Ethnobotanical Research: A Field Manual. New York Botanical Garden, New York, USA., ISBN-13: 978-0893274047, Pages: 306.
- [17] Yirga, G., 2010. Assessment of indigenous knowledge of medicinal plants in Central zone of Tigray, Northern Ethiopia. Afr. J. Plant Sci., 4: 6-11.
- [18] Togola, A. and Diallo, D. (2005). Ethnopharmacological survey of different uses of seven medicinal plants from mali (West Africa) in the region of Doila, Kolokaini, and Siby. Journal of ethno biology and ethno medicine 1:7
- [19] Haile Yineger and Delenasaw Yewhalaw (2007). Traditional medicinal plant knowledge and use by local healers in Sekoru district, southwestern Ethiopia. Journal of Ethnobiology and Ethnomedicine 3(1):24
- [20] Bopana, N. and S. Saxena, 2007. *Asparagus racemosus*-ethnopharmacological evaluation and conservation. J. Ethnopharmacol., 110: 1-15.
- [21] Bussmann, R.W. and D. Sharon, 2006. Traditional medicinal plant use in Northern Peru: Tracking two thousand years of healing culture. J. Ethnobiol. Ethnomed., Vol. 2.
- [22] Martin, G.J., 1995b. Ethnobotany. Chapman and Hall, London, UK.
- [23] Qureshi R. and G.R. Bhatti. 2009. Folklore uses of amaranthaceae family from Nara desert, Pakistan. Pak. J. Bot., 41(4): 1565-1572.
- [24] Ahmad, M., M.A. Khan and R.A. Qureshi, 2003. Ethnobotanical study of some cultivated plants of

- Chhucchh region (District Attock). J. Hamdard Medicus, 3: 15-19.
- [25] Ojewole, J.A., 2006. Antinociceptive, anti-inflammatory and antidiabetic properties of of *Hypoxis hemerocallidea* Fisch. and C.A. Mey. (Hypoxidaceae) corm [„African potato“] aqueous extract in mice and rats. J. Ethnopharmacol., 103: 126-134.
- [26] Aderibigbe, A.O., B.A. Emudianughe and B.A. Lawal, 1999. Antihyperglycaemic effect of *Mangifera indica* in rat. Phytother. Res., 13: 504-507.
- [27] Matin, A., M.A. Khan, M. Ashraf and R.A. Qureshi, 2001. Traditional use of herbs, shrubs and trees of Shogran Valley, Mansehra, Pakistan. Pak. J. Biol. Sci., 4: 1101 -1107.

