

Assessment of Women Involvement in The Utilization of Non-Timber Forest Products in The Enclaves of Gashaka-Gumti National Park (GGNP) Serti, Taraba State, Nigeria

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Women are involved in the harvesting, processing and marketing of Non-Timber Forest Products (NTFPs) in the enclaves of Gashaka-Gumti National Park (GGNP) Serti in Taraba State-Nigeria. However, the extent of their involvement is not known and documented in the study area. Therefore, assessment of women involvement in the harvesting and utilization of Non-Timber Forest Products in the enclaves of Gashaka-Gumti National Park was investigated. Data generated from the study was analyzed using simple percentages and frequency tables. The findings of the study indicated that, all the respondents are females, married with large household size, live inside the park and have very low educational background. A total of 84 NTFPs were harvested and utilized by women in the enclaves of Gashaka-Gumti National Park. Seven (7) harvesting methods were used by women to extract forest resources in Gashaka-Gumti National Park. Eight effects of the harvesting methods were identified. Based on the above, the followings are recommended; initiation of women community forest programs, use of alternative domestic energy source, improving Briquetting technologies of the local people and provision of improved cooking stoves, Incentives to motivate the locals, involved women in decision making, women should be taught sustainable NTFPs harvesting methods, women should be encouraged to plant NTFPs of their choice; this is because when women plant NTFPs of their choice on their farms or around their houses, the pressure on wild ones will be reduced.

Keywords: Enclaves, Forest resources, Gashaka-Gumti, Utilization and Women.

INTRODUCTION

The term "Non-Timber Forest Products (NTFPs)" is used interchangeably with Minor Forest Products (MFPs) or Non-Wood Forest Products (NWFPs) or Secondary Forest Products (SEFPs). It refers to all biological resources, products and services other than timber that can be harvested from forest ecosystem for subsistence and trade (Shamley et al., 2002 in Peteret et al., (1989); Arnold et al., 2011; Bahru et al., 2012). They include fruits, nuts, spices, oils,

vegetables, crafts, construction materials, fuel wood, charcoal, medicinal plants, fibers, resins, latex, gums, dyes, wild honey, bush meat, fish, rattans and bamboo. The past twenty years have witnessed a rapid growth of interest in NTFPs. It is believed that, the promotion of sustainable use of NTFPs could lead to a win-win situation for poverty reduction and biodiversity conservation (Neumann and Hirsch, 2000; Marshall et al., 2003; Jimoh et al., 2013). The

significance of NTFPs effectively captured the imagination of conservationists around the world when Choudhury (2007) reported that, more money could be earned from tropical forest by collecting NTFPs than from logging timber (Choudhury, 2007). Enclaves are areas of land inside the park set aside for human settlement, livestock grazing and farming with controlled zones where traditional livelihoods are protected and supported, echoing the harmony of years of past human activity (Sommer et al., 2004). It is becoming increasingly obvious to National Park managers that the key to protecting any cherished landscape lies within those communities that call it home or enclaves. Gashaka-Gumti National Park provide NTFPs for different uses for Women living in the enclaves of the Park as forest provide products for different uses at households and industrial levels (Appiah, 2009). These products are grouped into timber and non-timber forest products (NTFPs). Although, timber products are highly valued worldwide, NTFPs also played an important role in sustaining livelihoods of communities living around forest areas, however, these NTFPs have not been given maximum attention. Examples of these NTFPs are mushrooms, honey, fruits, herbs, spices and condiments, aromatic plants, fibers, resins, gums as well as plants and animal products. This is true in part because many key stakeholders (e.g. policy-makers, market players, extension services) pay little attention to the potentials of NTFPs for local markets. This relative neglect is compounded by the paucity of data and analytical work on gender differences in forestry value chains. A lot of studies have observed that, community livelihoods in Nigeria derived up to 80% of their income from the sales of NTFPs (Jimoh et al., 2013). In addition, Ogunsawo and Ajala (2002); Zaku et al., (2013) reported that over 70% of the country's households depend directly on fuelwood as their main source of energy, with daily consumption estimated at 27.5 million kg/day. Despite the potential value of NTFPs and its useful contributions to sustainable livelihoods, utilization is also significantly low when compared to other food products supplied through improved agricultural practices and industrial sources. There is however, dearth of information on the empirical evidence on the harvesting and utilization of NTFPs by women in the enclaves of Gashaka-Gumti National Park. This study was under taking to provide significant information on the utilization of NTFPs by women in the study area with a view to provide information in order to take informed decisions on the activities of women in Gashaka-

Gumti National Park. It must be noted here that, although, women are involved in the harvesting, processing, utilization and marketing of NTFPs in the study area, the extent of their involvement as well as the contributions of NTFPs to community livelihoods, are not documented in the study area. Therefore, "assessment of women involvement in NTFPs harvesting and utilization of NTFPs in Gashaka-Gumti National Park was investigated.

MATERIAL AND METHODS

Gashaka-Gumti National Park is located in a mountainous region of North-Eastern Nigeria, adjacent to the international border with Cameroon and immediately to the North of the Mambila Plateau with few lonely paths winding through the forested mountain and no road crossing through them. It lies between latitude 6° 55' 8° 5' North, and longitude 11° 11' 12° 13' East. The park's name derived from two of the region's oldest historic settlement; Gashaka town in Taraba State and Gumti town in Adamawa State with Gashaka at the Southern fringe and Gumti at the Northern fringe respectively. The Gashaka-Gumti National Park started as Gashaka game reserve and Gumti game reserve respectively in 1972, while the Gashaka game reserve was managed by the Taraba State and Gashaka community (Figures 1 and 2).

In 1991, the two game reserves were merged together by the Federal decree number 36 of 1991 and was re-named "Gashaka-Gumti National Park" and its management was transferred from the two state and communities to the Federal Government. The Park has two head offices, Bodel for Gashaka and Toungo for Gumti respectively. The Park is by far the largest (6,402sqKm) and most scenic in all the National Parks in Nigeria. Potentially, it is also the most important site for nature tourism. It has pleasant sub temperate climate, beautiful array of scenery, dominated by mountains, valleys, rivers, streams and montane forests. The Park is also home to some very highly endangered species of wildlife. These include Chimpanzees, cheetah, Leopards, Giant forest hog, Mountain reedbuck, Sitatunga, Colobus monkeys etc. The Park is also spawning ground for some fish species such as Nile perch, Electric fish, Tilapia etc. In recent times, Giraffes and Elephants have been sighted crossing in from the Republic of Cameroon. However, the effective exploitation of the park's potentials in tourism depends on the development

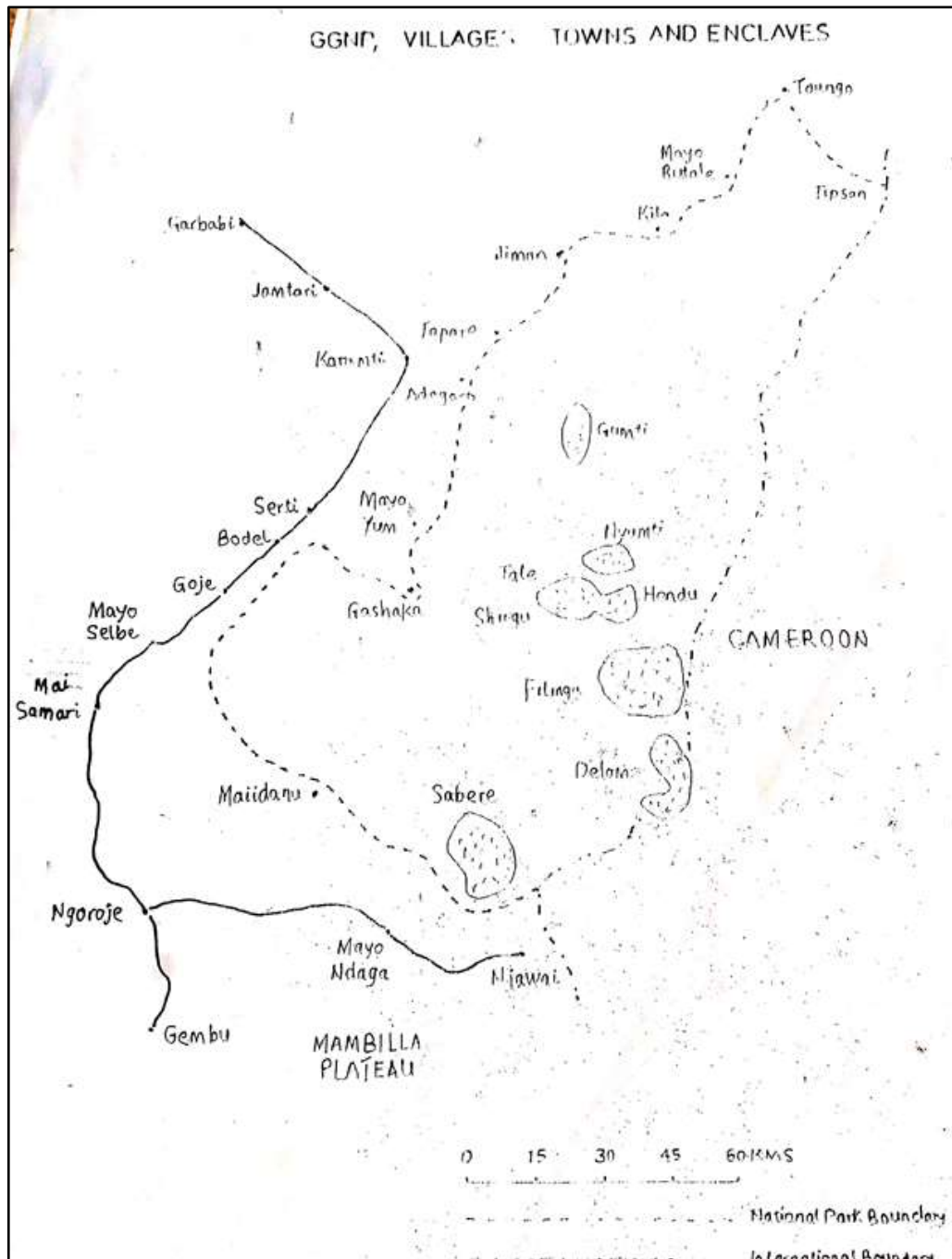


Figure 2: Map of GGNP Villages, Towns and Enclaves.

Source: Adapted from Dunn (1995).

and linkage of good network of roads to the rest of the country. The park also contains historic sites, one of which is the old German Fort at the top of Gashaka hill. Gangarwal peak of the Chapal Wadi mountain in range located in the park is the highest peak in

Nigeria. The temperature is 50°C in March and may drop to 40°C in December; rainfall begins April to October and is followed by sand-laden harmattan wind from November to March. The following ethnic groups; Jibu, Dakka, NdooroTigun, Mambila, Kaka

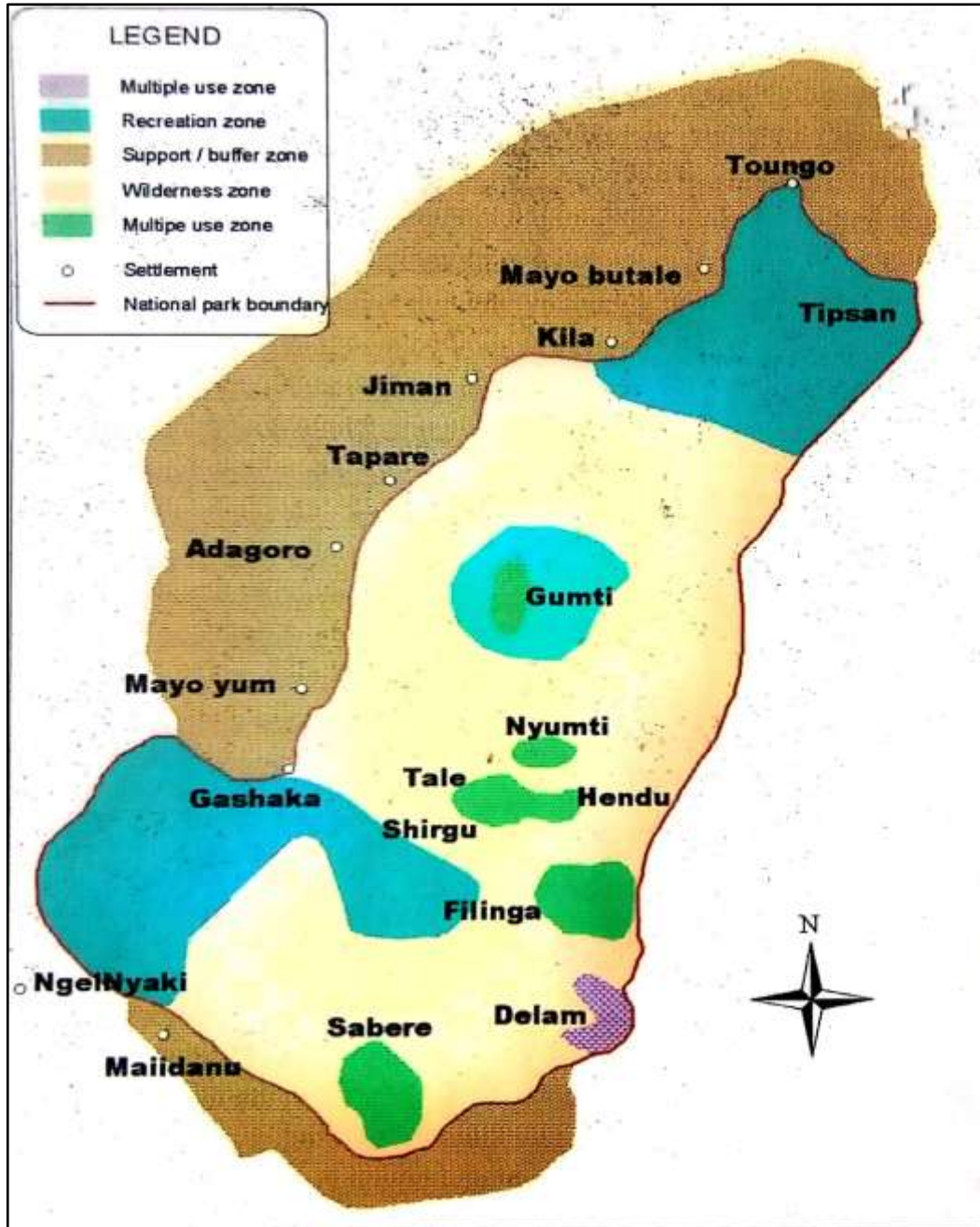


Figure 1: Map of Gashaka-Gumti National Park showing enclaves.

Source: Zaku (2013).

and Fulani, surrounds the park (Figures 1 and 2).

SAMPLING PROCEDURE AND SAMPLE SIZE

A purposive sampling technique was adopted for this

study. A total of 100 respondents that were made up of women alone were selected from five enclaves namely, Nyumti, Delam, Hendu, Filinga and Sabere respectively. Twenty (20) semi-structured questionnaires with open and close ended questions were developed and administered to the women from

the mentioned enclaves. A total of 100 semi-structured questionnaires were administered to the women to elicit their responses on their involvement in the harvesting, processing, utilization and marketing of NTFPs in Gashaka-Gumti National Park with only 95 retrieved. Five (5) respondents relocated without returning back the questionnaires and this explains why only 95 questionnaires were retrieved. The data generated from the study were analyzed using simple percentages and frequency tables for easy comprehension.

RESULTS

Socio-Economic Characteristics of The Respondent in The Study Area

The result on the age of the respondent in the study area revealed that, majority of the total respondents were in the age group (31-45years) with 52.6% followed by the age group (16-30years) with 26.3% while 15.8% were those between 46-60years and the remaining 5.3% constitute those with 60years and above (Table 1). The survey result on the marital status of the respondent in the study area indicates that, majority of the total respondents were married with 73.7% followed by 15.8% of the respondents were single while 10.5% were widows (Table 1). From Table 1, the survey result on the educational qualification of the respondent revealed that, majority of the total respondents (57.9%) have primary education followed by 21% who have adult education, 10.5% have quranic education, 5.3% have secondary education and 5.3% have tertiary education (Table 1). The result of these finding shows that, majority (47.4%) of the total respondents were processors of Non-Timber Forest Products (NTFPs) in the study area, 36.8% were harvesters of NTFPs and the remaining 15.8% constitute the marketers of NTFPs in the study area. This implies that majority of the respondents were processors of NTFPs in the study area (Table 1).

The result on the household size of the respondent in the study area revealed that, majority 52.6% of the total respondents have between 4-6 family members, 31.6% have 1-3 family members, 10.5% of the respondents have 7 and above family members while 5.3% have no family members (Table 1). The result of the finding on the nearness of the respondents to Gashaka-Gumti National Park revealed that, all the respondents were living inside the park (Table 1).

Compendium of NTFPs Harvested and Utilized by Women in Gashaka-Gumti National Park

The result on NTFPs harvested and utilized by women in the enclaves of GGNP indicated that, 29 NTFPs are harvested and utilized in form of fruits, nuts and seeds; 12 NTFPs, vegetables, oils, spices and condiments; 5 NTFPs, cattle stick or chewing stick; Similarly, one NTFPs each is used as wrapping leaves, sponge, gum, beads and building materials while 4 NTFPs each are used as weaving materials, dyes and medicine respectively. The result also indicated that, 9 NTFPs each are used as fuel wood, charcoal and dietary supplement respectively thereby bringing the total to 84 NTFPs that are harvested and utilized by women in the enclaves of Gashaka-Gumti National Park (Table 2).

Harvesting Methods Used by Women in The Enclaves of Gashaka-Gumti National Park

The result of the finding as indicated in Table 3 on the residence of the respondents' shows that all the respondents were living in the enclaves of Gashaka-Gumti National Park. The survey result on the use of NTFPs in the enclaves of Gashaka-Gumti National Park revealed that, all the respondents (women) agreed that they are involved in the harvesting and utilization of NTFPs in the study area. The result of the finding on the harvesting of NTFPs from Gashaka-Gumti National Park indicated, that, all the respondents were involved in the harvesting of NTFPs from the park. The result of the study on methods used in harvesting NTFPs in the study area indicated that, majority 26.3% of the total respondents used plucking method; 21.1%, cutting method; 15.8%, digging method; 10.5%, lopping method; 10.5%, uprooting; 10.5%, debarking; 5.3%, tapping method respectively (Table 3).

Effect of Harvesting Methods on NTFPs in Gashaka-Gumti National Park

The survey result on the effects of NTFPs harvesting and utilization by the women in the enclaves of Gashaka-Gumti National Park shows that, majority 31.6% of the total respondents indicated, disappearance of NTFPs over time due to over exploitation; 15.8%, trekking long distances before sighting NTFPs; 15.8%, trekking long distance before sighting wild animals such as Elephant and hippopotamus; 13.7%, erosion; 12.6%, climate

Table 1: Socio-economic characteristics of the respondents in the study area.

Variables	Number of respondents	Percentage (%)
Age		
1-15 Years	0	0
16-30 Years	25	26.3
31-45 Years	50	52.6
46-60 Years	15	15.8
60 Years and Above	5	5.3
Total	95	100
Marital Status		
Married	70	73.7
Single	15	15.8
Divorce	0	0
Widow	10	10.5
Single Mother	0	0
Total	95	100
Educational Qualifications		
Quaranic Education	10	10.5
Adult Education	20	21.0
Primary Education	55	57.9
Secondary Education	5	5.3
Tertiary Education	5	5.3
Total	95	100
Occupation		
Harvesters of NTFPs	35	36.8
Processors of NTFPs	45	47.4
Marketers of NTFPs	15	15.8
Total	95	100
Household Size		
0	5	5.3
1-3	30	31.6
4-6	50	52.6
7 and above	10	10.5
Total	95	100
Nearness to GGNP		
Inside park	95	100
Outside park	0	0
Total	95	100

Source: Field Survey, (2020).

change; 10.5%, destruction of wildlife habitat respectively (Table 4).

DISCUSSION

Socio-Economic Characteristics of the Respondent in the Study Area

The findings on age of the respondents indicated

that, majority of the respondents are in their active and productive age and are capable of carrying out NTFPs exploitation. This view is similar to Marla (2011) who observed that the younger the household member, the more active he or she participates in NTFPs exploitation and utilization while the older the household member the lower the probability of his/her participation in NTFPs exploitation and utilization due to decline in strength. He concluded that, the older the household member the more

Table 2: Compendium of NTFPS harvested and utilized by women in Gashaka-Gumti National Park.

S/N	Hausa name	Scientific name	Family	Live forms
NTFPs sold as fruit, nut and seed				
1	Jambe	<i>Dacryodes edulis</i>	Burseraceae	Tree
2	Goron birii	<i>Irvingia gaboneensis</i>	Irvingiaceae	Tree
3	Wa'awan kurmi	<i>Plukenetia conophora</i>	Euphorbiaceae	Tree
4	Kuka	<i>Adansonia digitata</i>	Bombacaceae	Tree
5	Tsage	<i>Amblygonocarpus androgenesis</i>	Mimosaceae	Tree
6	Aya'a	<i>Cyperus esculentus</i>	Cyperaceae	Grass
7	Ya'alo'o	<i>Solanum incanum</i>	Solanaceae	Herb
8	Gwandar daji	<i>Anona senegalensis</i>	Annonaceae	Shrub
9	Magarya'a	<i>Ziziphus mauritiana</i>	Rhamnaceae	Tree
10	Kimba	<i>Xylopia aethiopica</i>	Annonaceae	Tree
11	Aduwa	<i>Balanites aegyptiaca</i>	Zygophyllaceae	Tree
12	Giginya	<i>Borassus aethiopicum</i>	Palmae	Tree
13	Dorowa	<i>Parkia biglobosa</i>	Leguminosae	Tree
14	Atile	<i>Canarium schweinfurthii</i>	Burseraceae	Tree
15	Tsamiyar Kurmi	<i>Dialium guineense</i>	Leguminosae	Tree
16	Tsadar masar	<i>Spondias mombin</i>	Anacardiaceae	Tree
17	Tsamiya	<i>Tamarindus indica</i>	Leguminosae	Tree
18	Dinya	<i>Vitex doniana</i>	Verbenaceae	Tree
19	Kadanya	<i>Vitellaria paradoxa</i>	Sapotaceae	Tree
20	Barabutu	<i>Artocarpus communis</i>	Moraceae	Tree
21	Gwa'aba	<i>Psidium guajava</i>	Myrtaceae	Tree
22	Tuwon birii	<i>Parinari excels</i>	Chrysobalanaceae	Shrb
23	Tsada	<i>Ximenia Americana</i>	Olacaceae	Tree
24	Attagar	<i>Cocos nucifera</i>	Palmae	Tree
25	Kwara	<i>Elaeis guineensis</i>	Palmae	Tree
26	Walnut	<i>Lovoa trichilioides</i>	Meliaceae	Tree
27	Kabaiwa	<i>Cucurbita pepo</i>	Cucurbitaceae	Herb
28	Ayaban daji	<i>Ensete gillettii</i>	Musaceae	Herb
29	Daddagu	<i>Momordica charantia</i>	Momordica	Climber
NTFPs sold as vegetables, oils, spices and condiments				
30	Kumbi	<i>Mimosa pigra</i>	Mimosaceae	Herb
31	Zaki-banza'a	<i>Amaranthus viridis</i>	Amaranthaceae	Herb
32	Rama'a	<i>Hibiscus cannabinus</i>	Malvaceae	Herb
33	Dargaza'a	<i>Grewia venusta</i>	Tiliaceae	Herb
34	Wambo	<i>Brachystegia eurycoma</i>	Caesalpiniaceae	Tree
35	Konkoli	<i>Beilschmiedia mannii</i>	Lauraceae	Tree
36	Tafarnuwa	<i>Allium sativum</i>	Alliaceae	Herb

Table 2: Continue

37	Zurma	<i>Ricinus communis</i>	Euphorbiaceae	Tree
38	Kirya	<i>Prosopis Africana</i>	Leguminosae	Tree
39	Citafo	<i>Zingiber officinale</i>	Zingiberaceae	Herb
40	Masoro	<i>Piper guineensis</i>	Leguminosae	Climber
41	Borkono daji	<i>Aframomum letifolium</i>	Zingiberaceae	Herb
NTFPs sold as cattle and chewing sticks				
42	Fasa kwari	<i>Zanthoxylum zanthoxyloides</i>	Rutaceae	Tree
43	Sanda kiwo'o	<i>Carpolobia lutea</i>	Polygaceae	Shrub
44	Sanda kiwo'o	<i>Randia spp</i>	Rubiaceae	Shrub
45	Itace brush	<i>Massularia acuminata</i>	Rubiaceae	Tree
46	Gawo	<i>Faidherbia albida</i>	Mimosaceae	Tree
NTFPs sold as fuel wood and charcoal				
47	Madaci	<i>Khaya senegalensis</i>	Meliaceae	Tree
48	Madobiya	<i>Pterocarpus erinaceus</i>	Leguminosae	Tree
49	Kojoli	<i>Anogeissus leiocarpa</i>	Combretaceae	Tree
50	Ice mai ci wuta	<i>Leucaena leucocephala</i>	Leguminosae	Tree
51	Kafafago	<i>Uapaca togoensis</i>	Euphorbiaceae	Tree
52	Ajenana	<i>Trema orientalis</i>	Ulmaceae	Tree
53	Kawo	<i>Azelia Africana</i>	Leguminosae	Tree
54	Kasfiya	<i>Crossopteryx febrifuga</i>	Rubiaceae	Tree
55	Kalgo	<i>Pilliosigma thonningii</i>	Leguminosae	Tree
NTFPs sold as wrapping leaves				
56	Katemfe	<i>Thaumatococcus danielli</i>	Marantaceae	Herb
NTFPs sold as weaving materials or rope				
57	Gwangwala'a	<i>Bambusa vulgaris</i>	Poaceae	Grass
58	Ramaa'a	<i>Hibiscus cannabinus</i>	Malvaceae	Herb
59	Kwagiri	<i>Ancistrophyllum opacum</i>	Arecaceae	Tree
60	Ma'ajigii	<i>Baphia nitida</i>	Fabaceae	Tree
NTFPs sold as sponge				
61	Soso	<i>Luffa cylindrical</i>	Cucurbitaceae	Climber
NTFPs sold as dyes				
62	Majigi	<i>Baphia nitida</i>	Papilionaceae	Tree
63	Talaki	<i>Lonchocarpus cyanescens</i>	Leguminosae	Tree
64	Fisa	<i>Blighia sapida</i>	Sapindaceae	Tree
65	La'ale	<i>Lawsonia inermis</i>	Lythraceae	Tree
NTFPs sold as palm wine, local magi, oils and soap				
66	Tukuruwa	<i>Raphia mambillensis</i>	Palmae	Tree
67	Kwara	<i>Elaeis guineensis</i>	Palmae	Tree
68	Kadanya	<i>Vitellaria paradoxa</i>	Sapotaceae	Tree

Table 2: Continue

NTFPs sold as medicine				
69	Madachi	<i>Khaya senegalensis</i>	Meliaceae	Tree
70	Kiryā	<i>Prosopis Africana</i>	Leguminosae	Tree
71	Dogo yaro	<i>Azadirachta indica</i>	Meliaceae	Tree
72	Zakamii	<i>Datura metel</i>	Solanaceae	Herb
NTFPs sold as gum				
73	Dumshe	<i>Acacia seyal</i>	Mimosaceae	Tree
NTFPs sold as beads				
74	Idon Zakkara'a	<i>Coix lacryma</i>	Poaceae	Herb
NTFPs sold as building and construction materials				
75	Gwangwalaa	<i>Bambusa vulgaris</i>	Poaceae	Grass
NTFPs sold as dietary supplement				
76	Naman itace	Mushroom	Basidiomycetes	
77	Naman daji	Bush meat	Mammals	
78	Tsutsa	Caterpillar	Insect	
79	Gara	Termite	Insect	
80	Kodi	Snails	Analids	
81	Zuma	Honey	Insect	
82	Gya'are	Crickets	Insect	
83	Fara	G/hopper/Locust	Insect	
84	Kifi	Fish	Pisces	

Source: Field survey (2021).

decline in his/her ability to exploit NTFPs especially ones that require application of hard labour. The result on the marital status of the respondent revealed that majority of the respondents were married with children. This agreed with findings of Thankur (2013) that, married couples get helping hands from their spouse and children for agricultural and non-agricultural activities. The findings on educational qualification of the respondents shows that, majority of the respondents have low educational background. This corroborates Kumar (2012) who observed low literacy among rural population which tends to limit their ability to understand the dangers of excessive forest resources exploitation, they only based on their economic gains to improve the household income. Also, Townson (2012) in his study emphasized that, excessive exploitation of forest resources is greatly

attributed to the high rate of illiterate population prevalent in the rural communities that always refute possible measures to moderately exploit forest resource to acceptable rate.

The findings on family size of the respondent indicated that, majority have large family members. Inoni (2009) noted that, though, a very large family size may constitute a social burden, larger families use their labour input to an advantage in farming and forest products exploitation. According to Baland and Francois (2004), the intensity of forest resources exploitation has been found to have a direct relationship with household size of respondents.

Compendium of NTFPs Harvested and Utilized by Women in Gashaka-Gumti National Park (GGNP)

The findings of the study indicated that, a total of 84

Table 3: Harvesting methods used by women in GGNP.

Variables	Number of respondents	Percentage (%)
Do you live in the enclaves of GGNP?		
Yes	95	100
No	0	0
Total	95	100
Do you use NTFPs?		
Yes	95	100
No	0	0
Total	95	100
Do you harvest NTFPs from GGNP?		
Yes	95	100
No	0	0
Total	95	100
Method used in harvesting NTFPs		
Cutting	20	21.1
Plucking	25	26.3
Lopping	10	10.5
Digging	15	15.8
Up-rooting	10	10.5
Debarking	10	10.5
Tapping	5	5.3
Total	95	100

Source: Field Survey, (2020).

NTFPs were harvested and utilized by women in the enclaves of Gashaka-Gumti National Park. This implies that, GGNP in Taraba State is highly diverse in terms of NTFPs. This corroborates Zaku, (2013).

Harvesting Methods Used by Women in The Enclaves of Gashaka-Gumti National Park

The findings of the study on the use of NTFPs in the enclaves of Gashaka-Gumti National Park revealed that, all the respondents (women) agreed that they are involved in the harvesting and utilization of NTFPs in the study area. This corroborates CIFOR (2013) that, rural farmers from a wide range of socio economic, geographical and cultural context, harvest and utilize NTFPs for a number of reasons and the utilization pattern vary by ecological zones and socio-economic areas. In other words, some utilize it for household subsistence, maintenance of culture, spiritual fulfillment as well as physical and emotional well-being, house heating and cooking, self-employment, income generation and for medicinal purposes. However, the purpose for utilization is set

by individual household and these depend on their needs. In Nigeria about 80% of the people utilize NTFPs for food and personal care (Anon, 2000). Rural household utilizes NTFPs as food in the form of wild fruits, vegetables and nuts, edible roots, as bush meat, snails, edible insects and honey (Agbogidi, 2010). The findings of the study on the harvesting of NTFPs from Gashaka-Gumti National Park indicated that, all the women were involved in harvesting of forest resources from the park. Similarly, Amadi et al., (2016) indicates that majority of the inhabitants of Gashaka-Gumti National Park are involved in NTFPs harvesting, processing and trade. This is an indication that NTFPs contributes to household income. Okafor (1994) stated that, the gathering and selling of forest products is a major economic activity of the rural populace. The findings of the study indicated that, seven (7) harvesting method were used by women to extract forest resources in Gashaka-Gumti National Park and they include: Cutting, Plucking, Lopping, Digging, Up-rooting, Debarking and Tapping. This corroborates Okafor, (1984).

Table 4: Effect harvesting methods on NTFPS in GGNP.

Variables	Number of respondents	Percentage (%)
Disappearance of NTFPs over time due to over exploitation	30	31.6
Trekking long distance before sighting NTFPs	15	15.8
Destruction of wildlife habitat	10	10.5
Climate change	12	12.6
Erosion	13	13.7
Trekking long distance before sighting wild animals such as Elephant etc.	15	15.8
Increased income for people living in enclaves	0	0
Raises the standard of living of the people in the enclaves	0	0
Total	95	100

Source: Field Survey, (2021)

Effect of Harvesting Methods on NTFPs in Gashaka-Gumti National Park

The findings of the study indicated that, eight (8) effects of the harvesting methods were identified, they include: Disappearance of NTFPs over time due to over exploitation, trekking long distance before sighting NTFPs, Destruction of wildlife habitat, Climate change, Erosion, trekking long distance before sighting wild animals such as Elephant etc., increased income for people living in enclaves and raising the standard of living of the people in the enclaves. This corroborates Zaku, (2013).

CONCLUSION

The findings of the study indicated that, all the respondents are females, married with large household size, live inside the park and have very low educational background. A total of 84 NTFPs were harvested and utilized by women in the enclaves of Gashaka-Gumti National Park. Seven (7) harvesting method were used by women to extract forest resources in Gashaka-Gumti National Park and they include: Cutting, Plucking, Lopping, Digging, Up-rooting, Debarking and Tapping. Eight (8) effects of the harvesting methods were identified, they include: Disappearance of NTFPs over time due to over exploitation, trekking long distance before sighting

NTFPs, Destruction of wildlife habitat, Climate change, Erosion, trekking long distance before sighting wild animals such as Elephant etc., Increased income for people living in enclaves and raising the standard of living of the people in the enclaves.

RECOMMENDATIONS

Based on the findings of the study, the followings are recommended;

1. Gashaka-Gumti National Park Management should initiate community forest programs which will involve the women in the area.
2. Alternative domestic energy source for households should be provided so as to reduce the amount of firewood harvested in the park. This can be achieved through improving Briquetting technologies of the local people and provision of improved cooking stoves which consumes low energy.
3. Government should possibly reduce the size of GGNP to a reasonably manageable size considering the growth in the local population.
4. Also incentives are needed to motivate the locals and empower them into investing in other ventures rather than depending on the proceeds from NTFPs exploitation from the park.
5. Women should be involved in the decision making of Gashaka-Gumti National Park.

6. Women should be taught sustainable NTFPs harvesting methods.
7. Women should be encouraged to plant NTFPs of their choices, this is because when women plant NTFPs of the choices in their farms and around their houses, the pressure on the wild ones will be reduced.

CONFLICT OF INTEREST

The Authors had no conflict of interest.

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