

Rural Women's Indigenous Knowledge of the Nutritional and Medicinal Use of Vegetables in Southwest Nigeria

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ABSTRACT This paper is based on a study that investigated rural women's knowledge of the nutritional and medicinal use of some vegetables found around the southwestern part of Nigeria. A qualitative research paradigm was adopted. The targeted population comprised rural women in the Oyo East local government in Oyo State. A purposive sample of 85 respondents was drawn from five purposively selected communities. Focus group discussions and in-depth interviews were deployed as methods of data collection. Findings revealed that the rural women have a vast knowledge of nutritional and medicinal use of these vegetables. Although the medicinal value of most of the plants is locally appreciated, there is need for increased public education and awareness on their value. Additionally, the rural women need to be financially empowered to reduce the vicious circle of poverty.

INTRODUCTION

Nutrition plays a central role in alleviating food insecurity and ill health in developing countries. There are a wide variety of indigenous vegetables found in Africa, which are chief sources of nutrients, vitamins, antioxidants, minerals and proteins (Odhav et al. 2007). To this effect, there has been advocacy for the extension of nutrition education to different groups in rural areas across Nigeria. The focus of such nutrition should be local, custom food production patterns, post-harvest handling of agricultural produce and the extent of malnutrition as well as the dietary needs of different age groups (Sylvester et al. 1991). Apart from their inherent nutritional quality, indigenous vegetables also have healing properties. In fact, some of the indigenous vegetables are mainly used by inhabitants for medicinal purposes (Eifediyi et al. 2008).

Researchers have tried to assess the nutritional value of indigenous vegetables, which were previously not appreciated and eaten in order for the vegetables to be included in local diets and for income generation. In fact, the Food and Agricultural Organization (FAO 1996) pointed out that the problem of malnutrition is rampant among children and pregnant women, and is responsible for high mortality rates among these groups. Insufficient consumption of vegetables and fruits annually causes 2.7 million deaths worldwide, and is one of the top ten risk factors contributing to human mortality (Pres-

cott-Allen and Prescott-Allen 1990). This necessitates the inclusion of indigenous vegetables and fruits (especially where exotic vegetables are not affordable) in regular diets in order to alleviate problems of hunger and malnutrition, which are most prevalent in several African countries.

However, a closer look at the vegetable content of the diet in the southwestern part of Nigeria revealed that very few vegetables were routinely included in the diet despite the abundance of vegetables in the area. This can be attributed to the inadequate knowledge of the dietary and medicinal value of some of these plants (Awobajo et al. 2010). Knowledge of the nutritional value of indigenous vegetables was influenced by culture, which varied from one place to another, and hence affected the cultivation, preservation and utilization of many vegetables (Ogundipe-Leslie 1994).

Nonetheless, there has been an increased awareness of the health protecting properties of non-nutrient bioactive compounds found in fruits and vegetables, and this has directed immense attention to vegetables as vital components of daily diets. The effect is global reorientation and a gradual shift towards the consumption of vegetables and herbs. More people are gaining awareness regarding the benefits of consuming of vegetables such as the cruciferous vegetables (cabbage and mustard) in preventing prostate cancer (Genoveva and Rajendra 2001). The reported high antioxidant activities

of vegetables also help in protecting cell membrane integrity and reducing rate of aging (Cook et al. 1998).

Rural women are pivotal to development in African countries as they play diversified roles in development. They have been greatly endowed with 'special' knowledge or traditional knowledge of the nutritional and medicinal use of different kinds of vegetables. In Burkina Faso and the West African Sahel region, rural women carefully collect the fruit, leaves and roots of native plants like the baobab tree (*Adansonia digitata*), red sorrel leaves (*Hibiscus sabbadaria*), Kapok leaves (*Ceiba pentandra*) and Tiger nut tubers (*Cyperus esculentus* L.) to supplement family diet. Agricultural grains (millet and sorghum) are the staple diet and they only provide for one part of the nutritional spectrum (Olatokun and Ayanbode 2008). In Tonkere village in Ife Central Local Government (south-west Nigeria), research carried out by Adebobola (1999) revealed that eighty-six percent of the rural women in this area are herb sellers. The dominant farming activities in the upland regions are based on the "slash and burnt" type of bush clearing. Women have their indigenous means of detecting the viability of seeds by selecting the sinking ones soaked in a standing pot of water.

To achieve sustainable development, the rural women's skills, potential and knowledge of the nutritional and medicinal value of some vegetable is critical and should not be undermined. Their domestic activities vitally contribute to the maintenance of the local economy to enhance sustainable development, hence the need for their empowerment. It is against this backdrop that this study examined the extent of the knowledge of rural women in selected communities in Oyo state regarding the nutritional and medicinal value of indigenous vegetables. The objective was to assess the way the vegetables can be used to mitigate acute ailments and how this knowledge and practice has improved women's livelihoods.

The significance of the study was based on the fact that rural women are endowed with indigenous knowledge on the use of some vegetables. Vegetables are known to be the cheapest source of vitamins especially water soluble vitamins and micronutrients. However, the efficacy of the 'special' knowledge or indigenous knowledge in the enhancement of sustainable devel-

opment is not yet fully realized. There is need for a reorientation and a gradual shift towards the full consumption of vegetables and herbs. The important role played by women in the consumption of vegetables should be examined, hence the need for this study to fill this gap. Furthermore, information from this research can contribute to policy development.

Rural Women's Use of Indigenous Knowledge (IK) in Sustainable Development

Rural women have for millennia been central to the breeding of food crop species, the preservation of seeds and the domestication and use of wild edible plants through the use of indigenous knowledge. Not only are women custodians of biodiversity, but also equally endowed with indigenous knowledge of traditional medicine, land use, management and family health-care, which they use to enhance sustainable development.

The Farm Radio Network (2003) noted that women possess an enormous amount of knowledge about food production and processing, medicine, childrearing and other survival skills. In Uganda, women used indigenous vegetables to ensure food security. Though rural women are responsible for feeding their households, they have limited access to resources. Household gardening offers women an important means of earning income without overtly challenging the cultural and social restrictions on their activities (Rubaihayo 2002).

In Mali, rural women use indigenous knowledge of *Jatropha* to produce curcas oil as raw material and fuel (Henning 2002). Traditionally, the seeds were harvested by women and used for medical purposes and the local production of soap. Rural women in Mali continue to use *Jatropha curcas* as medicine (seeds as a laxative, latex to stop bleeding and against infections, leaves against malaria) and for soap production. The cultivation of *Jatropha* promotes three main aspects of development, which combine to help assure a sustainable way of life for village farmers and the land that supports them. These aspects are erosion control and soil improvement, poverty reduction, and the production of renewable energy.

In the area of agriculture, rural women's use of IK in Ethiopia is demonstrated in the use of oxen as draught power to improve agricultural

production. Many women and girls have been trained to use oxen to plough their land (Haile 2004). Rural women also use their indigenous knowledge in family healthcare. Fassil (2004) has stated that “it is noteworthy however, that local women reported that they are generally the first to diagnose symptoms of illness in children”.

The cases cited above give an insight into the skills, potentials and the ‘special knowledge’ rural women have and how they have been using these to improve their livelihoods and to develop their communities.

Theoretical Perspective

This study is hinged on the African Feminists perspective. To the African Feminists, there is a need for an approach that is anchored in a retrieval, revitalization or restoration of the African senses of indigenusness (Wane 2005). That is, African people must reposition their cultural resource knowledge in order to appreciate the power of collective responsibility to tackle social issues. Indigenous knowledge though ancient, is proven, and based on cognitive understandings and interpretations of social, physical and spiritual worlds. IK encompasses concepts, beliefs and perceptions of local peoples and their natural human-built environments (Dei 1999).

A commonly held view is that ordinary African women lack power and agency due to lack of ‘appropriate’ knowledge, economic or political positions (Haile 2004). The justification for this (and which this study does not support) is often explained by such factors as lack of education or due to poverty and inequity in distribution of resources. In such situations, lack of acknowledgement and support of women’s knowledge systems and their contribution to the development are presented as natural and inevitable in a busy and dynamic world. Several African women have been writing to challenge colonialism (Aidoo 1998; Mama 1997; Ogundipe-Leslie 1994; wa Thiongo 1985; Nwapa 1970, 1966). Indeed, generations of African women writers have built their careers on intimately interrogating the micro and macro effects of colonialism and resistance strategies undertaken within their communities. These earlier voices of decolonization deplored the lack of representation of women’s voices (Sadaawi 1997). However, within the confines of patriarchal cultures

and an emphasis on nationalism that limits women’s agency, women’s voices are fewer and far between. Yet, African women are the guardians of traditional knowledge and leaders in resistance struggles.

Despite the efforts of colonizers to disrupt indigenous practices, women’s role as traditional teachers remains unchanged. Women have continued their feminist work in different ways so as to end silence and to speak their truths, as they know them. There were years marked by fierce battles between tradition and modernity, and women’s participation in healthcare and development, along with men, in their transformed society (Swai 2011). Some women fought for their rights to access healthcare services and a chance to take care of their families and children. Others fought for their rights to share their knowledge and heal people in their families and communities. Indeed, women battled for their very lives and for their continued existence as integral members of the community. Therefore, African feminism cannot be discussed separately from the larger context of repression and exploitation of both men and women. This has given rise to a renewed feminism and activism aimed at changing social conditions for both men and women.

METHODOLOGY

The study site was the Oyo East local government area. It is one of the 33 local government areas (LGAs) in Oyo State. With the headquarters in Kosobo, it has an area of 144 km² and a population of 123,846 according to the 2006 census. The Oyo East LGA was chosen because it is rural and the inhabitants largely draw their livelihoods from natural resources in the area. Considering the small population sizes of many of the local communities in LGA, a total of five (5) communities (Waro, Idi Araba, Gudugbu, Igaga, and Akinola) was selected for the study. The communities were selected based on distance, accessibility and spread.

A qualitative research approach design was adopted for the study owing to some factors including size of the population, respondents’ level of literacy and location, time and financial constraints. The population of the study comprised of rural women. Women were chosen as the target audience because they were directly involved in the planning of meals for the home

as well as preparing the various dishes in which vegetables are used. There are many rural women farmers in these communities. These women have rich nutritional and medicinal knowledge of various kinds of vegetables. They were selected using the snowball sampling method. In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted on some of the available vegetables around them in. One FGD was conducted in each community (giving sixty (60) FGD participants) and five (5) in-depth interviews were conducted in each community (giving twenty-five (25) interviewees). On the whole, eighty-five (85) respondents participated in the study.

Since most of the respondents were illiterate, the interviews were conducted in the Yoruba language (the indigenous language), and later transcribed verbatim. All interviews and discussions were tape-recorded. The qualitative data was analyzed by manual content analysis and descriptive statistics. Content analysis is a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding and identifying themes or patterns (Alreck et al. 1994).

In-depth interview (IDIs) and focus group discussion (FGDs) guides were the research instruments used. The aim of the IDIs and FGDs was to examine the women's use and practice of IK in treating four (4) major health conditions namely, fever, high blood pressure, diabetes mellitus and ulcer. The key interview questions and discussions fell into three main categories of,

1. Background information: Respondents were asked question on age, marital status, level of education, religion, and types of vegetables planted.
2. Knowledge of and use of vegetables: Respondents were asked to identify the vegetable plants from the pictures provided as well as the knowledge of the medicinal use, of the plants in treatment of some common diseases and disorders such as fever, ulcer, high blood pressure, diabetes mellitus and anemia. Questions on identification require giving the local name of the plant, which interviewer checks out with the correct local name(s) on her records.
3. Level of economic empowerment: Respondents were asked to explain the extent to which women's knowledge of nutritional

and medicinal use of vegetables has increased their level of economic empowerment.

RESULTS AND DISCUSSION

Table 1 shows that majority (69.5%) of the respondents were aged between 21 and 40 years, while only 25.8 percent and 4.7 percent were above forty years and below 20 years, respectively. The mean age for the respondents was 45.7 years ($\bar{x} = 45.7$, $n = 85$), which implies that the majority of the women fall within the productive age. Investing in their life during this period will be a good way to reduce poverty and therefore

Table 1: Socio-demographic characteristics of respondents

Variables	Categories	Frequency	Percentages (%)
Age	16-25	11	12.9
	26-35	13	15.3
	36-45	24	28.2
	46-55	10	11.8
	56-65	12	14.2
	66-75	15	17.6
Marital	Married	42	49.4
Status	Separated	23	27.1
	Divorced	9	10.6
	Widowed	11	12.9
Level of Education	No formal education	29	34.1
Religion	Primary	24	28.2
	Secondary	22	25.9
	Others	10	11.8
	Christianity	38	44.7
Types of Vegetables Planted	Islam	32	37.6
	Traditional religion	15	17.7
	Telifaria Occidentalis (Ugwu- Fluted pumpkin)	10	11.8
Types of Vegetables Planted	Corchorus Olitorus (Ewedu/Ayoo- Jute leaves)	31	36.5
	Vernonia Amydalina (Efo Ewuro- Bitter leaf)	15	17.6
	Gongronena Lati folium (Arokeke- Bush buck)	5	5.9
	Moringa Olefera (Igi iyanu- Moringa leaves)	5	5.9
	Celosia Argentea (Efo sokoyokoto- Lagos spinach)	8	9.4
	Talinium Triangulare (Gbure- Water leaf)	6	7.0
	Amaranthus Hybridus (Efo tete- African spinach-Green)	5	5.9

Source: Fieldwork 2014

empower them financially by making available soft loans.

About 49.4 percent were married, while 27.1 percent and 10.6 percent were separated and divorced respectively. Only 12.9 percent were widowed. With regards to education, only 25.9 percent has secondary school education, while 28.2 percent and 34.1 percent had primary school education and no formal of education at all, respectively. This shows that the majority was illiterate. Only 11.8 percent indicated that they have other forms of education (like apprenticeship) apart from the formal education in an organized school setting. Most of them used indigenous knowledge inherited in oral form (rather than documented form) from past generations. This might not be unconnected to poverty level in the society as well as the cultural beliefs about the place of women in the society. With regards to religion, 44.7 percent were Christians, while 37.6 percent and 17.7 percent were of Islamic religion and the traditional religion, respectively.

It emerged that all the respondents were cultivating more than one type of vegetable as at the time of the study. Specifically, 11.8 percent had Ugwu Fluted pumpkin (*Telfaria occidentalis*), and 36.5 percent had Ewedu/Ayoo Jute leaves (*Corchorus olitorus*). This is because it is usually highly demanded in the area. Other vegetable types were distributed as follows: 17.6 percent had Efo Ewuro Bitter leaf (*Vernonia amygdalina*), 5.9 percent had Arokeke Bush buck (*Gongronena latifolium*), and Igi iyanu- Moringa leaves (*Moringa olefera*), respectively. 9.4 percent had Efo sokoyokoto Lagos spinach (*Celosia argentea*), seven percent had Gbure Water leaf (*Talinium triangulare*), and lastly, 5.9 percent had Efo tete African spinach Green (*Amaranthus hybridus*).

Knowledge of and Use of Vegetables for Treatment of Specific Ailments

The use of green vegetables for the preparation of soups cuts across different cultures within Nigeria and other parts of West Africa with similar cultural with a similar socio-economic background. Findings revealed that there was a good sense of knowledge and appreciation of all vegetables that were properly identified.

Ugu is a leafy vegetable, which is used among the community members for both culinary and medicinal purposes. It is rich in miner-

als such as calcium, potassium, magnesium, iron and folic acid, which make it highly nutritious. It is also a good source of vitamin A, B2, C, E and K, and lots of minerals (Ajibade et al. 2006). In the words of respondent 1:

Eating meals rich in fluted pumpkin leaves and seeds help prevent cancer, improves blood count, beats diabetes, and reduces blood glucose and cholesterol levels.

Respondents made the researcher understand that the Ugu leaves protect the heart and liver from harmful toxins and painkillers like paracetamol that is consumed anyhow by all and sundries. It reduces the risk of heart diseases because it contains a lot of natural anti-inflammatories. The herbal preparation of the plant has been employed at various times in the treatment of anemia, chronic fatigue and diabetes (Dina et al. 2006). Anemia constitutes a very serious problem because of the prevalence of malaria and other parasitic infections.

For the cure of high blood pressure and skin diseases, in the words of respondent 2:

“... Due to the antioxidant capacities of the leaves, it helps in restoring damaged cells and skins...it can be used to effectively manage diabetes and hypertension.”

In the western part of Nigeria, it is used in the preparation of ewedu soup. Once grinded, it gets a slimy consistency similar to that of okra. It is a good source of fiber, low in calories but high in vitamins. According to respondent 3:

In herbal medicine, it is used to control or prevent dysentery, worm infestation and constipation, fever, and gonorrhea. The cold infusion is said to restore appetite and strength.

As the name means, the plant is bitter and is used in preparing the popular Nigerian bitter leaf soup. It is mostly sold already prewashed in the Nigerian market. There are several species of bitter leaf, some large, leafy and deep green leaves, while some have comparatively smaller broader leaves. The bitterness is usually removed by boiling before the leaves are cooked as soups or added to soups made with other vegetables or eaten as spinach. It is rich in vitamins and minerals. According to respondent 4:

In traditional medicine it is used to treat fever, malaria, hepatitis, diarrhea, dysentery, and cough. The leaves are also used as medicine for stomachache, headache, scabies, and gastrointestinal disorders.

Malaria is said to be responsible for approximately one million infant deaths every year in sub-Saharan Africa (Eifediyi et al. 2008). What is worrisome is that the parasite is becoming resistant to a number of the current drugs for malaria treatment available on the market. To the respondents, the leaf extract is usually by infusion. It can also be squeezed to extract the medicinal ingredients (quinine). The extract is given to the patient suffering from hyperglycemia (excessive sugar) in one glass tumbler, twice daily until the blood sugar reduces. As a result of its natural quinine, the extract kills the plasmodium parasite that inhabits the blood stream of the patient when taken with a glass cup three times daily for seven days. In addition, respondent 5 stated that:

“Bitter leaf also reduces the sugar level of the body drastically and repairs the pancreas and kidneys, which makes it great for diabetic patients.”

Moringa popularly known as the “miracle tree” is a nutritional powerhouse of minerals, antioxidants and amino acids. In the ancient world, they regarded the tree as a “cure all tree”, an “elixir of long life”, or “the tree of life”. It is a multipurpose plant as the roots, leaves, pods, flowers, fruits, seeds and even the bark of the tree can be used to cure various diseases (Oduro et al. 2008). Moringa also contains omega-9 fatty acids, which have been proven to reduce the body’s resistance to insulin and severity of symptoms of diabetes. Overall, it can alleviate the symptoms of diabetes and reduce the severity of the body’s reaction to diabetes. In the words of respondent 6:

“Moringa is also said to balance sugar levels, hence it is helpful in the fight against diabetes”.

Here are some of the Moringa leaves’ medicinal uses and benefits as mentioned by the respondents:

- ♦ Leaves rubbed against the temple can relieve headaches.
- ♦ To stop bleeding from a shallow cut, apply a poultice of fresh leaves.
- ♦ There is an anti-bacterial and anti-inflammatory effect when applied to wounds or insect bites.
- ♦ Extracts can be used against bacterial or fungal skin complaints.
- ♦ Leaf tea treats gastric ulcers and diarrhea.
- ♦ Leaves treat fevers, bronchitis, eye and ear infections, and inflammation of the mucus membrane.

Celosia argentea is an herbaceous plant grown locally in various regions across the globe. In Nigeria it is known as Lagos spinach, and among the Yoruba it is known as *shoko yokoto*. *Shoko yokoto* is a leafy vegetable mainly popular in the western part of Nigeria. It is also the main leaf used in the preparation of *Efo Riro*, a popular vegetable soup. Sometimes, the leaves are crested with purplish or red discolorations in the middle. It is rich in beta-carotene, folic acid, ascorbic acid, calcium, iron and protein (Eifediyi et al. 2008).

Here are some of the listed medicinal portions made from *Celosia Argentea* as mentioned by the respondents:

- ♦ Stems and leaves of celosia, bruised and applied as poultice, are used for treating infected sores, wounds and skin eruptions.
- ♦ Poultice of leaves, smeared with honey, is used as a cooling application on inflamed areas and painful affections such as buboes and abscesses.
- ♦ Seeds are used to relieve gastrointestinal disorders and are antipyretic, improve vision, and relieve fever associated with liver ailments.
- ♦ Seeds when in decoction or finely powdered, are considered antidiarrheal and aphrodisiac.
- ♦ The juice of the seeds forced into the nostrils is a cure for epistaxis.
- ♦ Whole plant used as antidote for snake poison.
- ♦ Root used for colic, gonorrhea and eczema.
- ♦ Decoction of the seeds with sugar is prescribed against dysentery.
- ♦ Flowers and seeds used for bloody stools, hemorrhoidal bleeding, leucorrhoea and diarrhea.

Specifically, respondent 7 stated that:

“The seeds are traditionally used for treatment of jaundice, gonorrhea, mouth sores, wounds and fever, while flowers are used in treatment of gastroenteritis and leucorrhoea”.

Waterleaf (*Talinum triangulare*) is a non-conventional vegetable crop of the Portulacaceae family, which originated from tropical Africa and is widely grown in West Africa, Asia, and South America (Schippers 2000). Waterleaf as a vegetable has some inherent characteristics, which makes it attractive to smallholder farmers and consumers. Firstly, it is a short duration crop, which is due for harvest between 35-45 days

after planting (Rice et al. 1986). Secondly, in the study area (Oyo East) it is used as a “softener” when cooking fibrous vegetables such as fluted pumpkin (*Telferia occidentalis*). Nutritionally, waterleaf has been proven to be high in crude protein, ash and crude fiber. It is mostly abundant during the rainy season and once added to soups, it tends to increase the volume of water or liquid in it hence the name “water leaves”. According to scientific studies, it is said to be rich in mineral salts and amino acids as well as having anti-scorbutic properties, that is, prevention against the scurvy disease (Cook et al. 1998).

According to respondent 8:

“When cooked with other vegetables, it can be used for the treatment of malaria, helps increase appetite and is good for stomach problems. To others, improving the habit of taking water leaf can delay the onset of heart diseases and stroke.”

This is popularly called ‘arokeke’ among the Yoruba people. They are sharp bitter and sweet, widely used as a leafy vegetable and as a spice for sauces, soups and salads. The leaves are used to spice locally brewed beer. The leaves may be chewed raw, or grounded and added to food. In the words of respondent 9:

“This serves as a fast relief for cough, catarrh and running nose. The medicinal constituents could be extracted by leaf infusion and is given to the patient at least twice daily for one week”.

To some others, a decoction of leaves or leafy stems is commonly taken to treat diabetes and high blood pressure. The latex is applied to teeth affected by caries. It is also taken for controlling weight gain in lactating women and overall health management. Asthma patients chew fresh leaves to relieve wheezing. A cold maceration of the roots is also taken as a remedy for asthma. A decoction of the roots, combined with other plant species, is taken to treat sickle cell anemia. A maceration of the leaves in alcohol is taken to treat bilharzia, viral hepatitis and acts as a general antimicrobial agent.

Level of Economic Empowerment

Empowerment has several meanings. Kabeer (2008) describes women’s empowerment as the process by which those who have been denied the ability to make strategic life choices acquire such ability. Empowerment defined by these ac-

tions implies improving the status of women through the expansion of personal choice and creation of conditions, which promote the achievement of economic independence. This economic independence is a core objective of empowerment and a critical element in the fight against poverty and social disintegration. Although poverty is not peculiar to women, the burden is undeniably heavier. As the main providers in an increasing number of households, women have to carry the financial burden of the household. This in addition to providing emotional and psychological support

Findings of this study show that the women’s ability to sell daily based on the level of demand for their products play cogent roles in solving their financial obligations, which directly improve their standard of living and consequently alleviate their level of poverty. This would make them stick to selling these materials for as long as possible if it can continue to help improve their standard of living. Furthermore, the rural women through their knowledge of the use of these various vegetables treat different categories of people who consult them. In the words of respondent 10:

There is high patronage. More and more people are beginning to see the

importance of traditional medicine, since they can see the result almost immediately. So there is high demand. They have time-tested years of indigenous knowledge systems in curing diseases and maintaining human health. As a result, I sell and make profit, through which I have been able to maintain my family. I can boldly say that it has been through this job that I have been able to build two houses and educate all my children. I give God all the glory. It is actually a lucrative job, if you are ready to give what it takes. I have been on it for the past 35 years.

However, the case of the above woman is one out of many. She operates her business in different places such as her home, shop, and has people working for her who hawk the vegetables around town. For most of the women, the income generated is only enough for their family sustenance. This is because in most cases, rural women still buy the vegetables instead of cultivating them by themselves, and as such they gain little profit.

Medicinal plants cultivation as a conservation tool has good market potential in improving the socio-economic status of the cultivators. Nevertheless, according to respondent 11,

“There is a little reduction in poverty since we are able to feed ourselves and sponsor our children’s education. One major measurement of poverty is inability to afford three square meals, and this we have”.

The above quote implies that with their participation in the cultivation of medicinal plants for the market, women as heads of households are able to provide for their households.

Policy Implications of Findings

The findings of this study have shown that rural women are indeed endowed with indigenous knowledge in managing the interface between nutritional and medicinal uses of some vegetables. However, even though the knowledge rural women have has increased in relation to the use of some vegetables, there is still need to transfer this same knowledge to the wider population (both rural and urban). Secondly, existing constraints are reinforced, perpetuating gender inequality partly because technical or institutional knowledge associated with women’s work often remains unappreciated. Findings revealed that the medicinal values of majority of these medicinal plants are locally appreciated.

In line with the above, the following policy recommendations are made.

1. There exists the need to educate people about the available nutritious vegetables around them so that they can include them in the daily diet. Nigeria is blessed with vast vegetation with abundance of edible but undiscovered vegetable plants. Even those vegetable plants that were discovered were grossly underutilized due to poor knowledge of their nutritional benefits coupled with religious and tradition-oriented bias.
2. In the face of the global crisis, all hands must be on deck to ensure that relief is provided in the form of inward search into available nutritional vegetables across communities. This will go a long way in utilizing available resources in achieving far reaching benefits for the communities.
3. The utilization of these vegetables by all and sundry will give women the privilege of making some economic gains from their cultivations and thereby increase their level of economic empowerment.

CONCLUSION

Evidently from the foregoing, the medicinal values of majority of these medicinal plants are locally appreciated, despite an increasing awareness of the significance of sustainable development and its aim of regenerating the environment rather than destroying it.

RECOMMENDATIONS

There is need for public education on the available vegetables around, which can serve as herbal medicine, sources of nutrients and micronutrients that may salvage the population from the incidence of malnutrition. To a considerable extent, the practice of indigenous agriculture is promoting economic empowerment for the women. However, there is a need to make sustained and focused efforts towards facilitating the incorporation of women’s knowledge into broader development efforts. Women can become agents of change rooted in their traditions and yet be able to leverage learning from outside their communities. It also pointed out the need to financially empower the market women whose capital base is small to eradicate poverty.

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