

*Full Length Research Paper*

## **Impediments, opportunities and strategies to enhance trade of wild and semi-wild food plants in Bunyoro-Kitara Kingdom, Uganda**

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**This study examined the impediments, opportunities and strategies to enhance trade of wild and semi-wild food plants (WSWFPs) in Bunyoro-Kitara Kingdom, Uganda. Semi-structured questionnaire was administered face-to-face to sixty six (66) traders of WSWFPs in the formal markets: five (5) mobile hawkers and eleven (11) home-based/roadside traders. As a result of their small number, all traders that were found selling WSWFPs were interviewed. Data were analysed using simple descriptive statistics in excel spreadsheet and MINITAB statistical package. A number of challenges including high perishability, market dues, inaccurate consumers' perceptions, seasonal shortfalls and unreliable supply, unorganized markets, little or no value addition, limited market information, and the inexistence of market promotional activities affected the trade in WSWFPs. However, the growing market demands, increasing focus of most service providers in creating awareness on WSWFPs, ever-changing perception on nutritional values of WSWFPs by the public, current government emphasis on value addition of traded agricultural products, little or no capital requirement for starting up trade in WSWFPs, and absence of restrictive regulations on sale of WSWFPs were regarded as good opportunities that could be exploited to enhance trade in WSWFPs. Key strategies for improved marketing WSWFPs included among other things, training gatherers and traders on value adding activities prior to sale, deliberate investment in promotional and awareness campaigns to expose the hidden benefits of WSWFPs, scrapping market dues levied on traders selling WSWFPs, helping gatherers and sellers to organise themselves to form viable supply and market groups, linking gatherers and sellers to good markets, as well as providing them with available market information. There is thus, a need for concerted efforts to implement some of these feasible marketing strategies to improve on the markets of WSWFPs in the kingdom.**

**Key words:** Wild edibles, wild food, semi-cultivated food, marketing wild food, Uganda.

## INTRODUCTION

Since time immemorial, people have gathered plant resources to fulfil various daily requirements. Hundreds of millions of people, mostly in developing countries, derive a substantial part of their subsistence and income from wild plant products (Schippmann et al., 2002). Wild edible plants provide staple food for local people, serve as complementary food for other people and offer an alternative source of cash income (Gemedo-Dalle, 2005; Shrestha and Dhillon, 2006; Teklehaymanot and Giday, 2010). Indeed, wild food resources are central to food security in many developing nations as a food or income supplement or a fall-back resource (Falconer and Arnold, 1991; Agea, 2010).

Millions of the people in many developing countries do not have enough food to meet their daily requirements and a further more people are deficient in one or more micronutrients (FAO, 2004) and same is true for Uganda. The consumption and trade of wild plants as one of the strategies, adopted by the local people for sustenance, is intrinsically linked to their strong traditional and cultural system and is inseparable. The local communities include wild edibles to their daily food intake and sell the surplus to add to their income (Agea et al., 2011a, b).

Although, these wild food resources make a significant contribution to rural livelihoods and to the national economies of many countries, the magnitude of the income derived from wild resources and particularly wild food plants is not well known, due to a lack of systematic and rigorous data collection at country level (FAO, 2000). Besides this, a recent analysis of markets in sub-Saharan and southern Africa revealed that markets for indigenous and wild edible plants are largely informal, small and volatile (Russell and Franzel, 2004) which often escape the attention of policy makers. As such, these resources are often ignored in official nutritional investment projects.

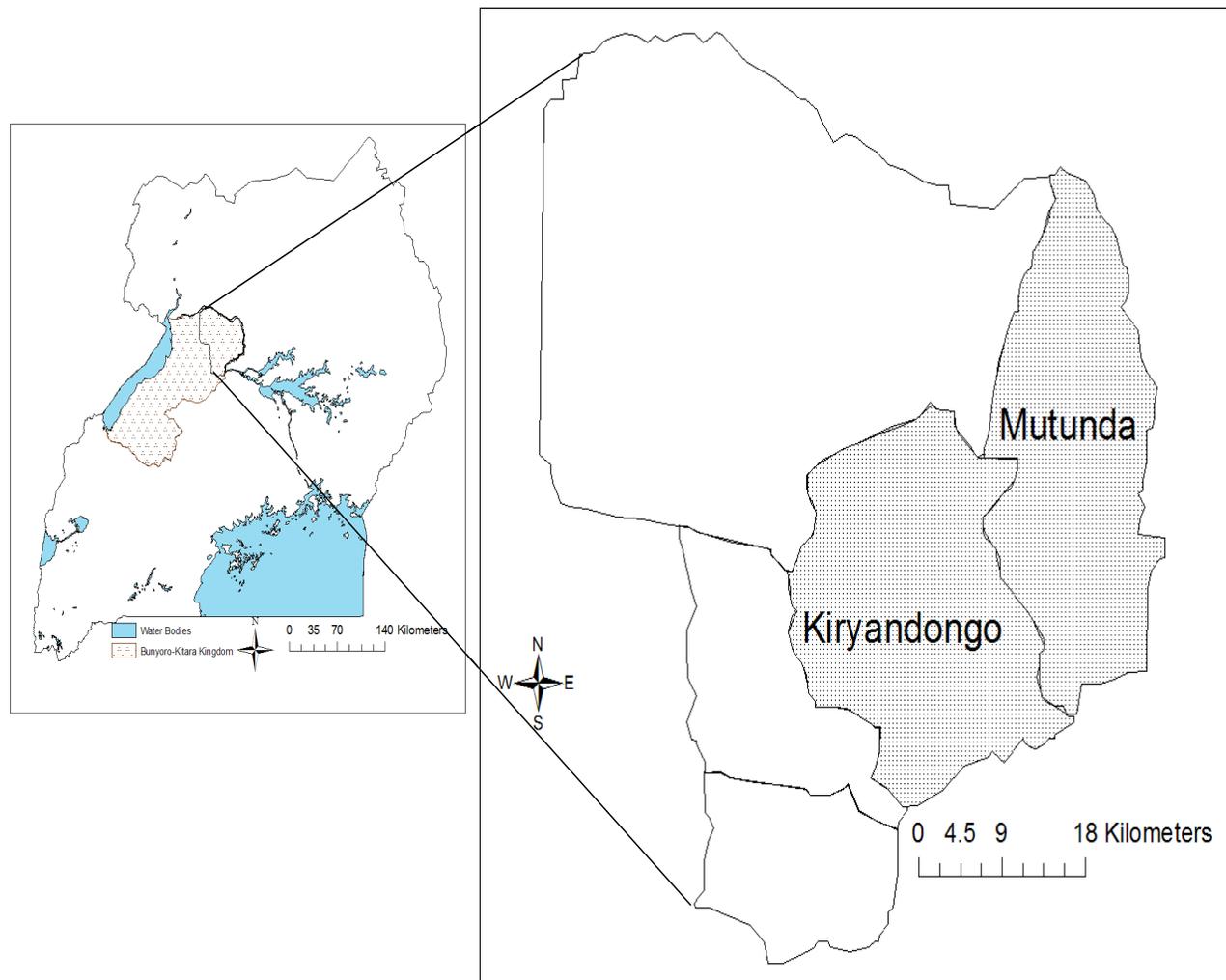
Besides, these resources are still largely ignored in land use planning and implementation, in economic development, and in biodiversity conservation endeavours (Haddad and Oshaug, 1999; Bhattarai et al., 2009; Acharya and Acharya, 2010). Yet in Bunyoro-Kitara Kingdom, Uganda, the consumption of these wild and semi-wild food plants (WSWFPs) have been reported (Rubaihayo et al., 2003) to be one of the important local survival strategies against poverty and appears to have intensified due to the repeated climatic shocks hampering agricultural production and leading to food shortages (Grogan, 2004). Over 92% of the entire population are poor with earnings less than half of the national average (Kiiza, 2010). Of the current 256,458 households, 97% of them are rural, 12% live in huts, 38% stay in dwelling units constructed more than thirty years ago; 22% live in semi-permanent and only 6% live in permanent houses (Kiiza, 2010). Food insecurity, inability to meet basic needs, sale of the few assets owned, intermittent

borrowing sometimes without repaying, extensive alcoholism, inability to pay tax, malnutrition, early marriages, school dropouts have always been the signs and effects of poverty in the region (Uganda Bureau of Statistics, 2004; Kiiza, 2010).

Like in other regions of Uganda, the persistent high rates of malnutrition and absolute number of people unable to access recommended calories has been increasing (Masindi, 2007; FANTA-2, 2010). These persistent high rates of malnutrition especially in children under 5 are symptomatic of the larger problems of inadequate access to food and inequality in wealth distribution within the Kingdom and Uganda at large. About 38% of the population suffer from chronic malnutrition (stunting), 16% are underweight and 6% suffer from acute malnutrition (FANTA-2, 2010). The Kingdom's food security is also threatened by high population density, low productivity and a fragile economy, in which average soil losses are among the highest in the region (MoFPED, 2007). Yet the mainstay source of livelihoods in the area is agriculture (Uganda Bureau of Statistics, 2002; UDIH, 2005). The variable and inconsistent nature of rainfall in some part of the Kingdom often results into drought and famine.

Besides, most farm households not only suffer from high pest prevalence and attacks on their meagre cultivated crops year round but also still use old and archaic tools (hand hoes) for tilling their land (MoFPED, 2007). In addition, there is high dependency ratio in the kingdom. Currently, the ratio is 1:6 per active person (Kiiza, 2010). The dependency ratio has been made worse by the increasing number of refugees in the kingdom. Most of the refugees are not engaged in lucrative activities. Their incomes are low and they live in very poor conditions. All of these factors have exacerbated household poverty and food insecurity in the kingdom. WSWFPs could therefore, play an important role in alleviating household poverty and temporal household food insecurity. Their consumption could help to address both chronic and transitory food security situations. As suggested by Hira and Putu (2007), the local food plants and food systems need to be studied as they might provide some way out to problems faced by poor rural communities. Besides, understanding the use and potential of these plants is essential for informed policy and decision making aimed at promoting their use and management.

Considering all these, this study was undertaken to examine the impediments, opportunities and strategies to enhance trade of wild and semi-wild food plants (WSWFPs) in Bunyoro-Kitara Kingdom, Uganda. The study was informed by the following research questions: What are the challenges and market-related opportunities to trade in WSWFPs within the kingdom? And how can



**Figure 1.** Location of Bunyoro-Kitara Kingdom and the study sites.

the markets of WSWFPs in the kingdom be improved?

## MATERIALS AND METHODS

A rapid market survey (RMS) was conducted in 17 local markets in Kiryandongo and Mutunda sub-counties of Kibanda County (Figure 1). Kibanda is one of the counties of Bunyoro-Kitara Kingdom, which is located in the western region of Uganda. It lies between  $0^{\circ}36'$  and  $2^{\circ}20'$  N, and  $30^{\circ}30'$  and  $32^{\circ}23'$  E (UDIH, 2005). The surveyed markets included Kiryadongo, Kattulikire, Tecwa, Chopelwor, Bweyale, Kalwala, Pumuzika, Kiryampungura and Karungi, all in Kiryandongo sub-county, and Diima, Karuma, Kawiti, Laboke, Mutunda, Nanda, Okwece and Teyango in Mutunda sub-county. Five mobile hawkers and eleven home-based/roadside markets were also surveyed.

RMS is a procedure for analysing commodity markets using a combination of techniques such as structured and semi-structured questionnaires with key informant informants, direct observations, and other participatory rural appraisal tools (Simmons et al., 1994). The method is very useful in trying to identify and understand the

current market trends, opportunities and constraints (Simmons et al., 1994). The framework is best suited to research studies in which either little research has been done before, poorly conducted or needs an update (Holtzman et al., 1993).

The strength of RMS includes its practicability on identifying and sharpening research problems and ranking them according to importance. It can also detect emerging issues, themes and opportunities facing marketing systems. So far, the framework has been widely used to analyse market systems. Examples are the analysis of fuelwood and charcoal markets in Asia (Padoch, 1988; FAO-RWEDP, 1993). It is obvious that probability sampling allows a random selection of elements, each with non-zero chance of being selected for the sample and hence produces good representation of the population. However, due to the descriptive nature of this study, purposive sampling was used to select traders selling WSWFPs for informal interviews. Semi-structured questionnaire was administered face-to-face to sixty six (66) traders that were encountered selling WSWFPs in the formal markets: five (5) mobile hawkers that were met selling mainly wild fruits, and eleven (11) home-based/roadside traders selling WSWFPs. Because of their small numbers, all traders that were found selling WSWFPs were interviewed.

**Table 1.** Socio-demographic characteristics of the traders selling WSWFPs.

Variable	Response (%)
<b>Sex</b>	
Male	18.3
Female	81.7
<b>Age</b>	
<18	14.6
18-36	26.8
>36	58.6
<b>Marital status</b>	
Single	15.7
Married	73.9
Divorced/separated	2.4
Widow/widower	8.0
<b>Education level</b>	
No formal education	9.4
Primary	51.4
Secondary	31.7
Tertiary	7.5
<b>Major occupation</b>	
Market vendor/trader	55.1
Subsistence farming	42.6
Others (housewifery, students, brick making)	2.3
<b>Family size</b>	
<3 people	15.3
3-6 people	18.5
>6 people	66.2
<b>Annual cash income (UGX)*</b>	
<200,000 (≈USD 100)	7.4
200,000-400,000 (≈USD 100-200)	31.0
>400,000 (≈USD 200)	61.6
<b>Main sources of cash incomes</b>	
On-farm	70.8
Off-farm	29.2

\*USD1 = 2010 Uganda shilling (UGX).

### Data analysis

Data from RMS which included market opportunities, constraints and strategies were analysed using simple descriptive statistics in excel spreadsheet and MINITAB statistical package. Data were coded to obtain a limited set of attributes for a variable (Babbie and Mouton, 2001), cleaned (checked) for mistake and entered into the computer. As a coding process, lists of responses were made for variables, groups were identified and numbers assigned to these groups. However, some data were used descriptively.

## RESULTS

### Socio-demographic characteristics of the traders

Socio-demographic characteristics of the interviewed traders (vendors) selling WSWFPs are presented in Table 1. The majority (82%) of the traders were women. Traders' ages ranged from 13 to 75 years, although the majority (59%) were above 36 years old. About 15% were less than 18 years old and the rest were aged between 18 and 36 years. About 74% of traders were married, 15% were not yet married (single) and the rest were either widow/widower or divorced/separated. The majority (51%) of the traders had attained primary level of education and only 9% had no formal education. The rest were either secondary school leavers or had attained tertiary level of education.

Although, all respondents interviewed were traders, only 51% reported trading as their main occupation and 43% said their chief occupation was subsistence farming. The rest were mainly occupied in housewifery, in school as students, and in small scale brick making activities. Most (66%) traders had more than six persons per household and the average family size was seven persons. The majority (62%) of the traders had annual cash income greater than UGX 400,000 (USD 200). Thirty-one percent had annual cash income ranging from UGX 200,000 to 400,000 (≈USD 100 to 200) and the rest earned less than 200,000 (≈USD 100) per year. The majority (71%) of the traders earned their cash income mainly from on-farm activities and the rest (29%) from off-farm activities.

### Impediments to trade in WSWFPs in the kingdom

Marketing of WSWFPs just like the trade in conventionally cultivated food crops, face several challenges. Outcome of RMS indicated that high perishability of most traded WSWFPs was the major setback for many ( $88.6 \pm 2.6\%$ ) traders dealing with these categories of plants (Table 2). High perishability was reportedly said to account for losses and wastage of between 20 and 60% of the traded WSWFPs. Most ( $81.1 \pm 4.2\%$ ) traders also complained of the market dues that they have to pay irrespective of what they are selling in the markets. Consumer mistrust and inaccurate consumers' perceptions of WSWFPs ( $73.0 \pm 1.8\%$ ), for instance perception of WSWFPs as food for the poor and uncivilized people greatly affected the trade. Seasonal nature and unreliability in supply of some traded WSWFPs were also reported ( $70.4 \pm 1.3\%$ ) as a major drawback to the trade of WSWFPs. Other challenges included unorganized markets (WSWFPs sold in dirty places often on the ground, no established marketing groups), little or no form of value addition to improve on the demand and market prices, limited market information, few buyers and generally low demands; difficulty

**Table 2.** Impediments to trade in WSWFPs in the kingdom.

Market challenge	Response (%) (±SEM)
High perishability leading to high wastage (20-60%).	88.6 (2.6)
Market dues.	81.1 (4.2)
Consumer mistrust and inaccurate consumers perceptions such as the poor man's food, food for uncivilized.	73.0 (1.8)
High seasonality hence unreliable quantities for market leading to fluctuation in prices	70.4 (1.3)
Unorganized markets (WSWFPs sold in dirty places often on the ground, no established marketing groups).	68.5 (3.7)
Little or no value addition to improve on the demand and market prices.	52.9 (4.6)
Limited market information.	45.3 (6.4)
Few buyers and generally low demands.	43.9 (1.7)
Difficulty in setting the prices.	30.7 (3.1)
No market promotional activities.	25.5 (5.4)

**Table 3.** Market-related opportunities for trade in WSWFPs.

Market opportunities for trade in WSWFPs	Response (%) (±SEM)
Increasing market demands for WSWFPs	85.4 (1.5)
Increasing focus of service providers in WSWFPs	68.3 (7.4)
Changing perception about nutritional values of WSWFPs	57.3 (2.1)
Current government emphasis on value addition	23.2 (5.5)
Little or no need for start-up capital to trade in WSWFPs	20.5 (4.0)
No restriction to sell WSWFPs unlike wild meat	15.5 (4.6)

in setting the prices, and the non existence market promotional activities (Table 2).

### Market opportunities for trade in WSWFPs

Among the numerous marketing challenges reported above, there were still some opportunities reported by traders that could potentially promote the trade in WSWFPs in their area (Table 3). Many ( $85.4 \pm 1.5\%$ ) traders viewed growing market demand of most WSWFPs as a good opportunity for trade in WSWFPs. Similarly, the increasing focus of most service providers from local governments as well as civil society organizations such as community based organizations (CBOs), and faith based organizations (FBOs) in creating awareness on WSWFPs was considered by many ( $68.3 \pm 7.4\%$ ) traders as an opportunity to increase the volume of traded WSWFPs.

Other recorded opportunities that could promote marketing of WSWFPs included the ever-changing perception about nutritional values of WSWFPs ( $57.3 \pm 2.1\%$ ) by the general public, and current government emphasis on value addition ( $23.2 \pm 5.5\%$ ) on traded agricultural products. Some traders ( $20.5 \pm 4\%$ ) considered the fact that trade in WSWFPs required little or no need for start-up capital as equally an opportunity

to trade in these resources. Others ( $15.5 \pm 4.6\%$ ) said the absence of restrictive regulations on sale of WSWFPs unlike wild meat is an opportunity that should be exploited.

### Strategies to improve the marketing of WSWFPs in the kingdom

To improve the marketing of WSWFPs in the Kingdom, the following interventions were suggested by traders (Table 4) and some key informants: Training of gatherers and traders on how to add values to WSWFPs to increase their market demand ( $78.0 \pm 3.5\%$ ); creation of market demands through promotional and awareness campaigns ( $74.4 \pm 4.6\%$ ). There were suggestions from key informants that creation of market demand could be possible especially through deliberate radio broadcasts, local newspapers, posters, or erecting signposts in areas frequently visited by potential customers such as the markets, churches, mosques and domestic water collection points.

Many ( $67.1 \pm 1.3\%$ ) respondents equally suggested that scrapping of the market dues paid by traders dealing in WSWFPs was an intervention that could improve on the market of WSWFPs in area. However, interviews with some local government officials about the traders' idea of

**Table 4.** Strategies to improve the marketing of WSWFPs in the kingdom.

Strategy/suggestion	Response (%) (±SEM)
Training people on how to add values to WSWFPs before selling.	78.0 (3.5)
Creating market demands through promotions and awareness through radios, in the churches and mosques.	74.4 (4.6)
Scrapping off the market dues paid for selling WSWFPs.	67.1 (1.3)
Help gatherers and sellers to organise themselves by forming groups.	51.2 (3.7)
Linking gatherers and sellers to good markets.	30.5 (5.4)
Providing market information to gatherers and sellers.	22.0 (1.9)

scrapping market dues levied on WSWFPs were not welcomed. Other potential interventions suggested included the idea of helping gatherers and sellers to organise themselves by forming viable supply and market groups (51.2 ± 3.7%); linking gatherers and sellers to good markets, as well as providing them with available market information (Table 4). There were suggestions that the civil society organizations and local government production departments should take lead in these aspects.

## DISCUSSION

### WSWFPs traded in the locality

Out of 62 WSWFPs belonging 32 botanical families reported to be eaten in this locality, about 47% belonging to 12 botanical families were traded in the formal and informal markets in this area, which is a fairly high number considering that many species are consumed either at the household levels or at their collection sites only. About seven to ten WSWFPs species were always available in the markets, showing their high diversity in the markets. As compared to other places elsewhere, the number of WSWFPs traded in the present study is quite high. For instance in Sikkim Himalaya, Sundriyal and Sundriyal (2004) reported that out of 190 wild edible species that are consumed as food in the region, only about 24% are brought to the local markets. In nearly all instances, the findings of this study indicated that WSWFPs were not the primary product sold by traders that deal in WSWFPs. Many traders sold WSWFPs in combination with conventional farmed products such as tomatoes, okra, oranges, mangoes, lemons, banana of different types, cabbages, beans and peas. Similar observation was also reported by Karaan et al. (2005) who noted that traders of wild fruits such as *Vitex mombassae*, *Vitex doniana* and *Strychnos cocculoides* in Tanzania, Zimbabwe and Zambia were engaged primarily in selling farmed products such as tomatoes, pumpkins, lemons and even fish. Therefore, any attempt to promote trade in WSWFPs should perhaps, be integrated into

those strategies aimed at promoting trade of conventional crops.

### Impediments to trade

Although marketing WSWFPs can contribute to household income, it faces several challenges just like trade in conventional food crops. The fact that most traded WSWFPs are highly perishable posed a big challenge to most traders dealing in these categories of food plants. A problem often compounded by short shelf-life of most traded WSWFPs, thus making the trade in WSWFPs very risky and unattractive. Awono et al. (2002) also acknowledged this problem as a single greatest constraint that traders of safou (*dacryodes edulis*) in Cameroon face. Besides, most traders of WSWFPs in the present study complained about the market dues that market authorities in formal markets demand them to pay irrespective of what they are selling. To them, the market dues should be limited only to conventional food and cash crops not to the WSWFPs that has generally low demands and returns. Some traders reported sometimes spending the whole market day, with less than five customers buying their products. Similar claims has also been registered by the market vendors trading in non-wood forest products (NWFPs) in the humid forest zone of Cameroon (Ruiz-Perez et al., 1999), a case where vendors of NWFPs were not happy with the market taxes and number of other local regulations they were subjected to.

Inaccurate consumer perceptions about WSWFPs were also reported as a major drawback to their trade. Perceptions that WSWFPs are meant for the poor, uncivilized and handicapped persons really affect their trade. Elsewhere, there is a report that similar perceptions have considerably affected trade of most wild fruits. In Zambia, some communities believe that ancestral spirits own wild fruit trees, therefore it is a taboo to engage in commercial trade on these fruits as the spirits disapproves of such use (Kwesiga and Mwanza, 1994; Mwanza and Kwesiga, 1994). Seasonal availability and unreliability in the supply of some traded WSWFPs were

also some of the challenges traders are confronted with. Some of species such as *Aframomum albobviolaceum* and *Vitex doniana* were said to be very seasonal and have unpredictable supply, leading to supply-demand imbalances. Gondo et al. (2002) reported that such problems of high seasonality and unreliability in supply, makes the flow of income generated from the traded non-wood forest products inconsistent and at times even non-existence.

In addition, the present findings indicated that the market systems of traded WSWFPs are largely unorganized without any established marketing groups, and with most vendors often relegated to the dirty parts of the market. The majority of the vendors often display their products on the ground sometimes without mats underneath, a practice that can encourage contamination and spoilage. Kaaria (1998) also acknowledged such a problem as faced by traders of wild fruits in Malawi, where many traders sell their wares outside the markets because of limited space inside and basically put their produce on the floor, or lay down a piece of cloth to protect the goods from getting dirty. Aside from market disorganisation, trade in WSWFPs were characterised by very little form of value addition activities to improve on demand and market prices, and with virtually no market promotional activities. The plants were generally offered in their generic form as and when available with little done to promote their trade other than mere art of display (arranging products in an interesting and persuasive manner) and persuasion (using familiar names, such as mother, father, uncle, sister, brother, auntie, even though the trader does not know who the customers are). Encouraging consumption in local and especially new markets would require much greater efforts in this regard. Promotion could be focused in selling the particular product attributed beyond simply taste. These attributes may be medicinal value, uniqueness, scarcity value, novelty, etc. Collaborative efforts are required here.

Other challenges faced by traders of WSWFPs included limited and sometimes completely no market information, low demands with few interested buyers and general difficulties in determining the market prices. Such challenges, however, are not unique to traders of WSWFPs in Bunyoro-Kitara Kingdom. Ramadhani and Schmidt (2008) observed that some of these obstacles especially limited information is a major setback in marketing of indigenous fruits in southern Africa. They attributed some of these challenges to be squarely responsible for the limited growth and under-development of the sub-sector on the marketing of tree products, a feature that characterizes the trade systems of wild food resources in Bunyoro as well.

### **Market opportunities**

Despite the numerous challenges reported in this paper,

there are still some opportunities that traders hoped could potentially enhance marketing of WSWFPs in Bunyoro-Kitara Kingdom. Many traders viewed growing market demands for WSWFPs as a good opportunity that could uplift and promote trade in WSWFPs. The market of WSWFPs is undoubtedly associated with indigenous demand which establishes its current appeal. This is a positive factor and a key element in a marketing strategy, especially in a world that is showing greater appreciation for organic and natural products. This implies that the attributes and motivations that underlie this indigenous demand could be useful selling attractions in new higher income markets where novelty and indigenous aspects are valued. Besides, the current economic hardships within the study area and Uganda as a whole provide opportunities for even expanded demand for WSWFPs to satisfy the increasing food needs. Moreover, there is anecdotal evidence that there is a trend to revert to traditional foods. Osemeobo and Ujor (1999) in their study of non-wood forest products (NWFPs) in Nigeria pointed out that those consumers' demands largely determine the market of most NWFPs. For instance, they reported that products such as chewsticks and wild vegetables that are often required on a daily basis have good markets in Nigeria.

Similarly, evidence from the present study show that currently, there is increasing attention and focus by service providers from both local governments as well as civil society organizations (e.g. community based organizations and faith based organizations) in creating awareness about WSWFPs. This growing attention, coupled with the ever-changing perceptions on nutritional values of WSWFPs by the public was considered by most traders as an opportunity to increase the volume of traded WSWFPs. The role of service providers in fostering trade of agro-produce especially among traders in low-income areas has long been recognized. Hughes and Mattson (1995) opined that service providers help promote farmers' markets through the awareness creation and dissemination of "how-to" publications, which typically include tips about having a marketing, pricing, advertisement and offering a sufficient product variety to ensure consumer satisfaction.

In addition, some traders viewed current Government of Uganda's emphasis on value addition on traded agricultural products as an opportunity that could enhance trade in WSWFPs as well. In Sikkim Himalaya, cost-benefit analysis of value addition activities to wild edible plants revealed that the income from trade of those plants can be increased by three to four times (Sundriyal and Sundriyal, 2004). Like in the present study, they noted that most wild edible plants of Sikkim Himalaya are mainly marketed in their generic forms. The other notable opportunity reported in this study was the fact that trade in WSWFPs required very little or no need for start-up capital and therefore, can be initiated without many difficulties. One only needs to scavenge the niches where

these WSWFPs grow to get a start-up stock sometimes with or without the family labour. Gondo et al. (2002) also acknowledged that because of little capital requirements, most poor people often take up trade in non-wood forest products as a source of livelihood. Lastly, unlike the trade in wild game (meat) which is illegal and prohibited in Uganda, there are no such restrictions on the trade of WSWFPs in the area. Informal discussion with some traders revealed that since most households in the study area eat bush meat on a weekly basis, its trade goes on undercover.

### **Strategies to improve the marketing of WSWFPs in the kingdom**

Improving marketing is often a long process and it is unlikely that marketing problems can be solved in one day and by the outsiders. Freedgood (1987) reported that there is no magic formula for improving local markets; feasible solutions to marketing problems should come from the local traders themselves, which can then be built upon by external actors. In the present study, there were many interventions suggested by traders that could help to improve on the markets of WSWFPs in the study area. Outstanding among these interventions, was the training need for traders on value addition activities. However, given the nature of most traded WSWFPs, and the little emphasis placed on their marketing and consumption by policy-makers in both at national and local governmental levels in favour of conventional crops, this strategy may not be very convincing and feasible at the moment.

Aside from this, there were suggestions for concerted efforts especially by service providers and local governments to invest in promotional and awareness campaigns in order to expose the hidden benefits of WSWFPs. It is thought that with increased awareness about the hidden benefits of the WSWFPs, their demand will increase and hence many customers. There were suggestions that these promotional and awareness campaigns should deliberately be carried out on radios, local news papers, posters or sign posts in areas frequently visited by potential customers such as the markets, churches, mosques and water collection points. Agea et al. (2004) tried similar promotional and awareness campaign strategy through radio broadcast programs and use of posters while promoting the use of indigenous fruits in Lira district of Northern Uganda, and today, there is anecdotal evidence that demand of indigenous fruits is on a rise in the district. However, the nature of the products traded suggests that demand is largely prompted by availability though sporadic. This same principle could hold in new marketing strategies based on nature producing cycles. This should of course not divert us from the principle that demand supply responds to demand. However, for this to occur requires that the nature of supply be proper and acceptable in the

market. Hence, more effort is required to appropriate supply to elicit the desired demand response. This effort would entail product quality, consistency, value addition, logistics and of course promotional activities.

There was also a suggestion that market dues paid by traders selling WSWFPs could be scrapped. However, interviews with market officials and local government bureaucrats suggest that this intervention is not possible because market dues are sources of revenue for local governments, and therefore, scrapping off such taxes would encourage tax evasion by some traders dealing in conventional crops disguising to be selling WSWFPs. Some market officials already claimed to be getting resistance in collecting market dues from some traders especially those selling their products outside gazetted market areas. On the other hand, ideas of helping gatherers and sellers to organise themselves into viable supply and market groups, linking them to good markets, as well as providing them with available market information were all welcomed by local government and market officials. In fact there were suggestions that the civil society organizations and local government production departments should take lead in these aspects just like they are doing with the conventional agricultural food and cash crops. Experiences from the trade of safou (*Dacryodes edulis*) in Cameroon have shown that if gatherers, who in most cases double as traders are organised into groups and helped to sell their produce to their neighbours, local markets, visiting traders or to wholesalers at the most remunerative prices (Awono et al., 2002); they could substantially increase their income and improve their livelihoods.

### **Conclusions**

The main challenges faced in marketing of WSWFPs in Bunyoro-Kitara Kingdom included high perishability, market dues, mistrusts and inaccurate consumers' perceptions of WSWFPs, seasonal shortfalls and unreliable supply, unorganized markets, little or no form of value addition to improve the demand and market prices, limited market information, few buyers and generally low demands, difficulty in setting the prices, and the inexistence of market promotional activities.

Opportunities to the trade in WSWFPs included the growing market demands for most WSWFPs, increasing focus of most service providers from local governments as well as civil society in creating awareness about WSWFPs, ever-changing perception on nutritional values of WSWFPs by the public, current government emphasis on value addition of traded agricultural products, little or no capital requirement for starting up trade in WSWFPs, and absence of restrictive regulations to sale of WSWFPs.

Key strategies for improved marketing of WSWFPs included training gatherers and traders on value added

activities prior to sale, deliberate investment in promotional and awareness campaigns to expose the hidden benefits of WSWFPs, scrapping market dues levied on traders selling WSWFPs, helping gatherers and sellers to organise themselves to form viable supply and market groups, linking gatherers and sellers to good markets, as well as providing them with available market information.

## Recommendations

There is a need for concerted efforts to implement some of the feasible marketing strategies that were suggested by traders in this study to improve on the markets of WSWFPs. Such interventions like helping to organise gatherers and sellers to form viable supply and marketing groups, and market promotions support (through local news papers, radios, posters and brochures) could be started with. Other interventions such as trainings on processing and value addition to WSWFPs, prior to sale could then follow later.

We also need to study carefully consumer behaviour in current and potential future markets. Besides, we need to conduct more detail studies on indigenous crops to ascertain the nature of demand, consumer characteristics, preferences and product attribute. A key challenge in marketing and producing less known commodities is communication and information exchange with markets. Systems and strategies must be formulated to improve information flow across all interfaces.

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