

Biographical Characteristics of Medicinal Plant Sellers in Northern KwaZulu-Natal

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KEYWORDS Education For Sustainable Development. Environmental Education. Biogeographic Characteristics. Livelihood. Medicinal Plants. Medicinal Plant Sellers

ABSTRACT This study was carried out to profile medicinal plant sellers in northern KwaZulu-Natal, South Africa on the basis of selected biographical characteristics. A survey research design was followed, utilizing a questionnaire as the main data collection instrument. Altogether, 56 medicinal plant sellers participated in the study. The results showed that the medicinal plant selling business was dominated by middle-aged to elderly women about forty percent of whom had no basic schooling. All the respondents had dependents to support, and depended on this trade to support their families. The low education levels of the majority of the respondents are worrisome and pointed to a need for capacity building, particularly with regard to responsible harvesting, wastage and business skills. Further, most respondents lacked alternative opportunities for a livelihood due to a lack of training for anything else. Thus, they almost exclusively depended on the sale of medicinal plant products.

INTRODUCTION

According to Pan et al. (2014: 1), since the dawn of mankind, “the use of herbs/plants has offered an effective medicine for the treatment of illnesses.” To the present day, traditional medicines still serve as an important and integral part of primary healthcare systems of many countries (Inta et al. 2008; Pirbalout 2009). Specifically, Inta et al. (2008: 509) report that most Akha villagers in China and Thailand “maintain some traditional knowledge of medicinal plants that they use for first aid remedies, to treat cough, cold, fever, poisonous bites and some simple ailments but most of the traditional knowledge of medicinal plants rest with the healers.”

It has not only been in the areas of primary healthcare and alternative medicine that traditional medicines have made their mark. In India, for instance, Sen et al. (2011: 67) observe that the traditional medicines of the Ayurveda, Naturopathy, Unani, and Siddha people “are the major healthcare systems in Indian society, which fully depend upon natural resources.” With reference to Southern Africa, Stafford et al. (2007: 384) report, “traditional healthcare is utilized by a large majority of the population.”

However, according to Pan et al. (2014: 1), the advent of Western, or conventional, medicine over the past century, challenged herbal

medicine, mainly “by practitioners of mainstream medicine because of the lack of scientific evidence in the context of contemporary medicine, despite its long history of effective use.” Nonetheless, many indigenous communities have steadfastly relied on traditional remedies for most if not all their ailments. There are many people in indigenous communities who have lived to very ripe ages without ever visiting a hospital and in recent times, there has been an upsurge in the demand for alternative medication regimes to what has become characterized as Western, mainstream medicines. According to Sen et al. (2011: 67), “in the last few decades eco-friendly, bio-friendly, cost-effective and relatively safe herbal medicines have moved from the fringe to the mainstream with increased research in the field of traditional medicine.” Echoing the above sentiments, Pan et al. (2014: 1) are also of the view that “in recent years, increasing numbers of people have been choosing herbal medicines or products to improve their health conditions, either alone or in combination with others.” They go further and declare that herbs are staging a comeback in what they characterize as a herbal renaissance, taking place all over the world. Pan et al. (2014: 2) state this point as follows:

“Interestingly, things change with time. In recent years, there has been a resurgence of the use of herbs due to the side effects of chemical drugs, lack of curative modern therapies for several chronic diseases, and microbial resis-

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tance, as well as the unprecedented investment in pharmaceutical research and development."

According to Sen et al. (2011: 67), the market for herbal drugs has, in recent times, "grown at an impressive rate due to a global resurgence in traditional and alternative healthcare systems, and therefore, medicinal plants have great economic importance." The upsurge of alternative medicines has also been associated with a concomitant rise in the popularity of traditional medicines. This popularity has crossed national boundaries as Teng et al. (2015: 318) observe, "traditional Chinese Medicine (TCM) is a popular form of ethno-medicine in the UK, and is accessed by Western, Chinese and other ethnic groups.

Sen et al. (2011: 67) point out that in many countries these days, medicinal plants have become "an integral component of alternative medical care." As such, "nowadays, many practitioners of 'conventional' medicine do not hesitate to recommend herbs, herbal products, or complementary and alternative medicine (CAM) therapy to their patients for the effective treatment of certain diseases." (Pan et al. 2014:2).

In South Africa, the medicinal selling business is a big industry that claims tons and tons of indigenous plant species annually, with a huge turnover in relation to financial benefits (Dold and Cocks 2002; Mander et al. 2007; Williams 2007; Ah Goo and De Wit 2015). In particular, Dold and Cocks (2002: 589) report that at one trading site in the Eastern Cape, "a minimum of 166 medicinal plant species were traded at the study sites alone, providing 525 tons of plant material valued at approximately R27 million annually." They further observe that:

"The trade in traditional medicines forms part of a multimillion rand 'hidden economy' in southern Africa stimulated by high population growth, rapid urbanization, unemployment, and the high cultural value of traditional medicines. Demand generates a species-specific trade network that can extend across national boundaries. Consequently, the trade in traditional medicines is now greater than at any other time in the past and is certainly the most complex resource management issue facing conservation agencies, healthcare professionals and resource users in South Africa today" (Dold and Cocks 2002: 589).

On their part, Ah Goo and De Wit (2015: 69) report as follows:

"The commercialization of natural resources such as medicinal plants is a method that is increasingly being used by poor people in developing countries, as a means of generating an income. Increasing economic hardship and lack of employment opportunities in the formal sector of the economy in South Africa have led many urban dwellers to seek alternative ways of meeting their everyday livelihood needs."

In concurrence, Mander et al. (2007: 189) surmise on the scale of traditional medicine trade as follows:

"The traditional medicines trade in South Africa is a large and growing industry. There are some 27 million consumers of traditional medicine and the trade of these medicines contributes to an estimated R2.9 billion to the national economy. For many people in South Africa, traditional medicine is not considered an inferior alternative to Western medicine, but is thought to be desirable and necessary for treating a range of health problems that Western medicine does not treat adequately."

With regard to the trade's economic impact on the households involved, Ah Goo and De Wit (2015: 69) surmise that "although the income from the trade was modest, it contributed substantially to the total household income of the traders and the medicinal plant trade offered other non-financial benefits as well", and further that "without the income generated from the medicinal plant trade, many traders and their families would be destitute and thus the trade is vital to the well-being of these people."

Williams (2007: iii) adds to the voice regarding the impact of this largely informal business sector on the sustainability of the plant species by stating the following:

"Exploitation of botanical resources has resulted in significant decreases in the sizes of some plant populations, especially for species that have a high commercial value and are important to the lives and livelihoods of rural communities. Medicinal plant resources are used and traded commercially in both rural areas and urban centers, and overexploitation has become a deterministic factor in the extinction risks of certain species."

Looking at this problem from the point of view of medicinal plant selling business in the Johannesburg metropolitan, which is billed as the biggest center of trade and commerce in Africa, Williams (2007) expresses this phenomenon as follows:

“While Zulus dominate the medicinal plant trade on the Witwatersrand, the requirements of non-Zulu consumers have also contributed to the creation of a supply chain for plants harvested in a number of South African provinces and African countries... Furthermore, the expatriate community of foreign nationals sources many of their medicines from their country of birth. In a study conducted by the Forestry Research Institute of Malawi (FRIM) at the Mwanza border post (SW Malawi) between June and December 2004 for example, 50 Malawians were recorded to be exporting medicinal plants, ninety percent of whom were destined for South Africa where they were then residents” (Williams 2007: chapter 11: 2).

However, trade in traditional medicines is not just a South African or African phenomenon. Elsewhere, Olsen and Bhattarai (2005: 37) report as follows:

“Hundreds of plant species are harvested in the Himalaya and traded at local, regional, and international levels. Recent studies indicate that the annual trade in medicinal plants and related products from the Himalaya amounts to thousands of tons of roots, rhizomes, tubers, fruits, and leaves with an annual value of millions of USD.”

This is supported by Karki et al. (2003) who reported about the big economic contribution that the medicinal plant sale trade made to the lives of low-income Himalayans. Similar observations were reported from ethno-botanical studies involving the commercialization of medicinal plants at the La Paz and El Alto markets in Bolivia. Here, the surveys similarly revealed not only the wide range of plant species exploited for trade, but also the major economic contribution the trade was making (Macía et al. 2005).

The very huge scale of the traditional medicines trade has raised issues of sustainability of the indigenous plants at the center of this trade. As a result, the notion of Education for Sustainable Development (ESD) has emerged as one way to mitigate the ecological ravages of this seemingly uncontrolled and uncontrollable plunder of the affected indigenous plants (UNESCO 2005).

Problem Statement

Urbanization has been fingered as one of the main contributing factors to the commercialization of the medicinal plant trade. The downside

of this has been that the medicinal plant selling trade has now evolved as not just the domain of well-informed and well-meaning traditional healers, but has also become a playground of untrained commercial gatherers who mainly supply urban centers (Mander 1998; Wardle et al. 2013; Steel et al. 2014; Cottingham et al. 2015). Since urban dwellers tend to be mostly poor, and without medical aid benefits, they tend to rely on traditional herbal remedies for their medical problems. In turn, this has caused an imbalance in the supply-demand chain, resulting in the demand for medicinal plants to far exceed the supply. Thus, in an attempt to meet these high demands, the medicinal plant sellers tend to harvest medicinal plants in ways that do not ensure the sustainability of the trade. In particular, they harvest plants of any age, from the same area and even uproot the whole tree in order to maximize on their sales. It was for this reason that the study was undertaken, focusing on trying to understand the biographical characteristics of the people who were involved in harvesting and selling traditional medicinal plants, particularly against the concern that this has become just like any trade, even for untrained persons. This could have serious repercussions, especially considering that this trade takes place within the aegis of health services, where some situations could be a matter of life and death.

Research Objective

The main objective of this study was to profile medicinal plant sellers on selected biographical characteristics, namely gender, age, education, occupation, and household types. This included collecting data on whether or not the medicinal plant traders held family positions such as household headers, to what extent they were the major income contributors, number of family members in a household whom they supported, occupation status, and if there were other sources of income brought in by other family members. Thus, the study was undergirded by two main concerns, that is, (a) sustainability of the affected plant species, and (b) levels of training against concerns of medical safety.

METHODOLOGY

The methods of investigation followed in this study are briefly described below under the various sub-headings.

Research Paradigm

This study adopted a mixed methods research paradigm, involving the collection of both qualitative and quantitative data. A researcher-designed questionnaire was used to collect data, which because of presumed low literacy levels of the target population, was administered on a one-to-one basis in an interview format. The questionnaire consisted of both structured and open-ended questions.

Research Design

This was a survey study, using a mixed methods data collection approach (Johnson and Onwuegbuzie 2004; Guba and Lincoln 2005). Johnson et al. (2007: 113) define mixed methods as “an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)”.

Population and Sampling

The target population of the study comprised of all medicinal plant sellers in northern KwaZulu-Natal. Medicinal plant sellers were targeted because they harvest large quantities of plant materials for selling purposes in order to maximize on profits. This is over and above what is harvested directly by traditional healers for healing purposes, although these two groups sometimes buy medicinal plant products from each other. Purposive sampling was used to identify potential resource-rich participants (Kumar 2005).

Focus Group Discussions

Focus group interviews were held with selected medicinal plant sellers from each market and each research site, following the questionnaire administration. The interviews were conducted in order to follow up on the data that emerged from the questionnaires, mainly for the purpose of soliciting further clarification and elaboration on how they conducted their businesses. Five individuals from each of the Zululand and uMkhanyakude sampling sites, and two from the Richards Bay sampling site representing uThungulu district participated in the focus

groups. These two were the only medicinal plant sellers at the Richards Bay sampling site. Thus, altogether twelve participants took part in the focus group discussions.

Data Analysis

Data on biogeographic characteristics of the respondents include geographical area, gender, age, education, occupation, and the positions occupied by the participants within their households, such as whether or not they were household heads, as well as the main income contributors of the households, number of family members in a household, occupation status and sources of income of family members. This information was illustrated in tables.

RESULTS

The biophysical characteristics of the respondents are presented below under the various subheadings.

Gender

Table 1 shows that medicinal plant sellers were mainly female.

Table 1: Gender of medicinal plant sellers (n=56)

<i>Gender</i>	<i>Frequency</i>	<i>%</i>
Female	50	89
Male	6	11

Out of the fifty-six different participants interviewed, eighty-nine percent were female and eleven percent were male. This profile is also reported in other studies (for example, Ndawonde et al. 2007), who reported that there were more women medicinal plant sellers than men in their survey involving medicinal plant sellers in northern KwaZulu-Natal. Similarly, in their survey of medicinal plant traders at the Faradays market in Gauteng province, Williams et al. (2007) reported that there were seventy-five percent women and twenty-five percent men selling medicinal plants. At the Durban market, in KwaZulu-Natal province, Mander (1998) found that there were many women who left their families for long periods of time to sell medicinal plants.

Age

Table 2 shows that a relatively smaller percentage of young participants (5%) were involved in this trade.

Table 2: Age of medicinal plant sellers (n=56)

<i>Age</i>	<i>Frequency</i>	<i>%</i>
15-25	3	5
26-35	11	20
36-45	16	29
46-55	18	32
56-65	8	14
65+	0	0

However, there were higher participation rates from the age of 26 years onwards, tapering off after the age of 55 years. Traditionally, practice in traditional medicine was a preserve of old people because practitioners needed to have a functional knowledge of medicinal plants and their uses. Usually, this took the form of apprenticeship, over many years. Thus, it is not surprising that participation in this trade only picked up from the mid-twenties with regard to the age of participants. The majority of the plant sellers fell between the ages of 36 to 55. The possible reason is that older people have a higher understanding and experience with medicinal plants. In line with this, Zobolo and Mkabela (2006) reported from their study in northern KwaZulu-Natal regarding the knowledge of home gardens, that older females possessed higher knowledge of medicinal plants than did younger women, or girls.

Number of Children Living in the Households of the Medicinal Plant Sellers

Table 3 shows that thirty-nine percent of the respondents had three children each living in their households, while thirty-four percent were each looking after four children.

Table 3: Number of children in medicinal plant sellers' households (n=56)

<i>No. of Children</i>	<i>Frequency</i>	<i>%</i>
1	3	5
2	12	21
3	22	39
4	19	34

Considering the extended family system in Africa, one could say that the respondents did not have big families. However, taking into account factors such as maintenance of children, four schoolgoing children could be a challenge for those whose sole income came from the sale of medicinal plants. If such parents were advanced in age, say in the 56 to 65 age group, this could compound the difficulty of looking after three or four children.

Occupation Profile of Medicinal Plant Sellers' Children

The main purpose in asking the respondents about their occupations was to establish whether they had alternative income sources or areas in which they held qualifications, which could secure employment outside the medicinal selling trade. Table 4 presents the profile of the respondents' children with regard to their occupations.

Table 4: Children's occupation of medicinal plant sellers (n=56)

<i>Children's occupation</i>	<i>Frequency</i>	<i>%</i>
Staying at home	7	13
studying	41	73
working	4	7
Other	4	7

The table shows that seventy-three percent of the children of the medicinal plant sellers were pursuing studies of one form or another, whereas thirteen percent were at school, and seven percent were in employment. This suggests that the parents or guardians were the principal income earners for their families.

Highest Schooling Level Attained by the Respondents

It was also of interest in this study to find out how much formal schooling the participants had attained. This information is reflected in Table 5.

Table 5: Schooling levels attained by the medicinal plant sellers (n=56)

<i>Children's occupation</i>	<i>Frequency</i>	<i>%</i>
None	22	39
Gr R-6	10	18
Gr 7-9	12	21
Gr 10-12	12	21
Tertiary	0	0

Table 5 shows that thirty-nine percent of the medicinal plant sellers had no formal schooling at all, and out of those who attained formal schooling, none of them reached tertiary level. Eighteen percent attained primary school, followed by twenty-one percent with junior and senior secondary school levels of education. Overall, however, it may be said that the majority (61%) of the participants were functionally literate with at least Grade 6 level of schooling, although a big worry still remains with the almost forty percent who were illiterate.

Occupation Status of the Medicinal Plant Sellers

It was also important in this study to find out whether or not, apart from selling traditional medicines, the participants had other sources of income, particularly from other more stable occupations. The results are presented in Table 6.

Table 6: Occupation of the medicinal plant sellers (n=56)

<i>Occupation of respondent</i>	<i>Frequency</i>	<i>%</i>
General worker	2	4
Professional worker	0	0
Technical worker	0	0
Self-employed	54	96
Other	0	0

Out of the 56 participants, ninety-six percent were self-employed. This suggested that the selling of traditional medicines and a few other self-initiated projects were the sole income sources for the majority of the respondents. Although none of the respondents held tertiary qualifications (see Table 5) this would not entirely explain why they have not opted to look for employment in the factories and other commercial establishments in the province and elsewhere, as have done many others without tertiary qualifications. So, it is possible that the respondents were attracted to this trade as a calling or for other reasons. However, it should be noted that unemployment rates in the northern KwaZulu-Natal region (the site of this study) are very high. This has resulted in a situation whereby the affected rural communities have resorted to etching a living mainly from selling products such as mats, animal skins and medicinal plants (William et al. 2000; Dold and Cocks 2002; Kepe 2007). Therefore, it is possible that there were not

enough employment opportunities for the medicinal plant sellers. Under such circumstances, it is normal for some people to give up looking for employment, before they even try, and opt to create their own opportunities for survival.

Income Contributors in Medicinal Plant Sellers' Households

Karki et al. (2003: 3) define livelihood as, "the processes comprising the capabilities, assets and activities that provide a means for living to the human beings." This is the sense in which livelihood has been construed within the context of this study. In this regard, Table 7 shows that eighty-two percent of the main income source agents in the surveyed households were female.

Table 7: Income contribution for medicinal plant sellers (n=56)

<i>Household income contribution</i>	<i>Frequency</i>	<i>%</i>
Mother	46	82
Father	2	4
Children	0	0
Both parents	7	13
All family members	1	2

This is quite striking, and an eye-opener. There was only one case (2%) where all family members contributed some income to the households, two cases (4%) where the main income source agent was the father, and 7 cases (13%) where both parents were the main income source agents. As demonstrated in Table 4, most dependents in the households (73%) were still at school. Only five percent of the children were reported to contribute income in their households. It is not clear why all seven percent of the children who were reported to be working (see Table 4) are not reflected here as contributing to household income.

DISCUSSION

The main objective of this study was to profile medicinal plant sellers on selected biographical characteristics, namely gender, age, education, occupation, and household types. On gender, the study has reported that women dominate the medicinal plant selling business. This could be attributed to the tendency for south-

ern African women to practice as diviners, while men practice as herbalists (Cunningham 1998), thereby leading to fewer males engaging in the medicinal plant selling business. Typically, herbalists do not operate from the streets, as medicinal plant sellers do, but ply their trade within their homesteads.

Furthermore, it might be that because of the various roles performed by women, particularly with respect to the health of their families, they develop higher proficiencies in the use of many medicinal herbs. As Kaur et al. (2015: 111) observe, "Since time immemorial women have been assigned with varied jobs as the mother, daughter and sister." They go further and state that "women, not merely, are a prime source of herbal plant traditional knowledge but also its maximum user and transmitter." According to Torri (2012: 32), "literature shows that worldwide, it is mainly women who are wild plant gatherers and managers, home gardeners and plant domesticators, herbalists and healers, as well as seed custodians." Thus, the findings of this study are in alignment with most of the worldwide trends that Torri (2012) refers to. Earlier Silori and Badola (2000) also reported similar gender imbalances in medicinal plant trade in India, where women also dominated.

There is also an issue about gender inequality as a possible reason explaining women's dominant participation in the traditional medicinal trade. In general, women living in the rural parts of South Africa are economically more disadvantaged than their male counterparts (Aliber 2003). The women's predicament is worsened due to the responsibility for managing their households and providing for their children. In order to help themselves, most of these women find themselves with very limited options rather than try to make their living through street vending.

According to Kaur et al. (2015: 111), of the 1.3 billion people who live in absolute poverty world over, seventy percent are women, and poverty for women "is just not scarcity of basic needs but also rights denied, opportunities curtailed and voices silenced." Thus, because indigenous knowledge, of which the knowledge of medicinal plants is part, is commonly owned by indigenous communities and for lack of other opportunities, the women fall back on this knowledge and trade in it to better the economic circumstances of their families. In this regard, Kaur et al. (2015: 111) posit, "gender inequality

is a grave problem world over but its effects are more pronounced in developing countries especially in the rural area where the woman is socially suppressed." They further point out, "knowledge of medicinal plants amongst women is still an unexplored area", and that if this knowledge could "be put to proper usage through well-defined approaches and policies", this would "help yield social and economic upliftment of rural women along with empowerment at par with males" (Kaur et al. 2015: 111)

In the same breath, it should also be pointed out that the requisite learning must be linked to the development of values, attitudes and behavior, as well as an understanding and appreciation of sustainable living, lifestyles and the importance of the environment. The medicinal plant selling business depends on the sustainability of the forest ecosystems. Thus, education on sustainable harvesting and other aspects of nature conservation is of utmost importance. From the findings of this study, it is very important to recognize the need to improve the literacy levels of the role players in this industry, particularly with regard to the management of natural resources.

In their study, Cottingham et al. (2015: 114) reported, "a majority of the naturopaths and herbal medicine practitioners surveyed were female (91%), and aged between 45 and 54 years." Thus, it is satisfying that in the case of the research sample of this study there were young medicinal plant sellers falling in the age group 15 to 25 years of age. Typically, one expects that people begin to trade in traditional medicines when they are considerably much older. It is for this reason that there is fear that indigenous knowledge concerning medicinal plants, as well as other forms of indigenous knowledge, could face extinction due to a lack of interest from the younger generation. Inta et al. (2008: 509) have noted, for instance, that the elderly Akha people of China and Thailand "often complain that it is difficult to find younger people who want to apprentice themselves." In the same vein, Kaur et al. (2015: 111) also lament, "The traditional knowledge of indigenous people is severely endangered as the younger generation is no longer interested to acquire and transmit it further." Thus, the fact that this study has found that there is participation in the medicinal plant trade from the younger generation is soothing to the mind and soul.

Overall, as is the case with other businesses, it is important to realize that the economic benefits of this trade are the overriding driver for the participants in this trade. Ah Goo and De Wit (2015: 69) make the same point in their observation that “increasing economic hardship and lack of employment opportunities in the formal sector of the economy in South Africa have led many urban dwellers to seek alternative ways of meeting their everyday livelihood needs.” On their part, Sen et al. (2011: 67) aver that “the market for herbal drugs has grown at an impressive rate due to a global resurgence in traditional and alternative healthcare systems, and therefore medicinal plants have great economic importance.”

Another attraction for pursuing this particular line of business could be that the trading business sector tends to yield better returns than, for instance, the manufacturing sector. For example, Md Saad (2011: 258) reports, “Economic activities in the trading sector are found to be very lucrative and result in higher average income compared to activities in the production and service sectors.” On their part, the clients of these medicinal plant sellers also gain in more ways than one, as Gyasi et al. (2015: 314) points out, “the role played by the traditional medicine (TRM) in ensuring quality of life and wellbeing of the citizenry and the national economic, social and political development is critical in both economically developed and developing economies.” Gyasi et al. (2015: 315) explain this point further as follows:

“Most people live below the poverty line and therefore find the orthodox medical care relatively costly to access. TRM/TMP is therefore the first point of call to many people in study prefecture... The current financial and economic strains partly explain the wholesome utilization and patronage of TRM in the developing world because of its relative cost-effectiveness. Research has validated the hypothesis that high income earners attend hospital more often than low income earners.” This relative cost-effectiveness is further buoyed by the fact that traditional medical practitioners and healers “are also known to charge based on ability to pay and accept different modes of payment such as in-kind and by installments rather than a flat rate payable in advance as is often the case when visiting a physician or using modern providers” (Gyasi 2015: 315).

This study has revealed that the majority of the medicinal plant sellers have not had the benefit of much schooling, let alone study for any formal occupations or professions. The medicinal plant selling business was the mainstay economic activity for the respondents. Thus, trading in medicinal plants has presented itself as one possible way out of economic hardship. As Ah Goo and De Wit (2015: 69) point out, “the commercialization of natural resources such as medicinal plants is a method that is increasingly being used by poor people in developing countries, as a means of generating an income.” Certainly, this appears to be the case for northern Kwazulu Natal.

CONCLUSION

This study has attempted to profile people who are directly involved in the medicinal plant selling trade, from both harvesters to hawkers, on a number of biographical characteristics. This was done in order to gain insight into the market chain of the key role players in the medicinal plant selling business. Further, this was also done in order to better understand the participants so that it would be easy to engage them further on the issues that pertain to their businesses. There is a need for more information on the medicinal plant trade, and the establishment of systems for inventorying and monitoring the status (that is, the extinction risks) of medicinal plants. This can be achieved if there is an understanding of who harvests the medicinal plants from the field, how much is harvested, when and how they harvest which medicinal plant species. Thus, understanding the characteristics of the medicinal plant sellers could aid, inter alia, in community-based developmental interventions to avoid the “*loss of a sense of purpose*” vis-à-vis the conservation of at-risk medicinal plant species amongst the local communities that use, harvest or trade the resource. From the results of this study, the low education levels of the majority of the respondents is worrisome and points to a need for capacity building, particularly with regard to responsible harvesting, wastage and business skills. Another issue that came out quite strongly was the lack of other opportunities for business. The respondents almost exclusively depended on the sale of medicinal plant products. Diversification is an important aspect of survival for people running small busi-

nesses. So, to the extent that the medicinal plant sellers appeared to have no other skills and prospects for engaging in other forms of livelihood was also worrying.

RECOMMENDATIONS

From the findings of this study, four main recommendations stand out. The first one is that more education and capacity appears to be needed to assist the women who play a dominant role in this trade to (a) secure more knowledge and skills to run their businesses better, and (b) acquire alternative skills and competencies to diversify, and depend less on the medicinal plant selling business. This could also lead to less and more responsible harvesting of medicinal plants, and hence assist in the conservation of, especially, at-risk medicinal plant species. In the discussion of the findings above, the issue of gender inequality emerged as a possible explanation for the preponderance of women in the medicinal plant selling business. The point was made that as a result of lower educational achievements and the burden of poverty, women's options for economic emancipation remained limited. As a result, it appeared that their only way out of, not only abject poverty but also sustained all-round hardships, was to fall back on communal indigenous knowledge, of which the knowledge of medicinal plants is an important component. Thus, education and other forms of capacity building interventions could go a long way in liberating the women and freeing them from this heavy dependence and reliance on their knowledge of medicinal plants.

Finally, it is also important to find ways of encouraging more of the younger generation to value their heritage, enshrined in indigenous knowledge systems, including the knowledge of medicinal plants. Although there may be abuses of the natural environment in terms of malpractices associated with harvesting techniques, and also overharvesting as traders push for more profits, the value of capturing the knowledge possessed by the older generations with regard to the medicinal value of the many plants the country is blessed with in the communities is priceless. So, efforts need to be made to ensure that this inheritance is not lost to the so-called modern civilization. This can only be achieved by finding ways to encourage the

young members of the communities to cherish this knowledge and not frown upon it.

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