# 12 TRADITIONAL KNOWLEDGE AS A MEANS OF RURAL ECONOMIC DEVELOPMENT IN ZAMBIA

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### **ABSTRACT**

The main objective of this paper is to highlight the importance of traditional knowledge in Africa and Zambia, in particular as a means through which to attain rural economic empowerment and development. Rural communities have for a long time in Zambia been associated with high unemployment levels and consequently high poverty levels. In light of the foregoing, this paper attempts to be an indicator to policymakers in Zambia to diversify the economy away from copper, which is the traditional export for the country, into other ventures such as the harnessing, use and commercialization of traditional knowledge to empower rural populations. In realizing and recognizing the intrinsic value that traditional knowledge, particularly traditional medicine, has, it becomes important that policymakers, through this paper, realize this intrinsic value and invest in this sector of the economy. Finally, the paper will provide recommendations for the successful harnessing of traditional knowledge for the benefit of the citizenry, especially rural communities in Zambia.

**Keywords:** traditional medicine, cultural expressions, commercialization, protection, economic empowerment, rural population, rural incomes

# I. INTRODUCTION

Traditional knowledge can be defined or said to be knowledge that is distinctively associated, collectively generated and transmitted from generation to generation in a particular society. The National Intellectual Property Policy for Zambia (2010) recognizes traditional knowledge and further stresses that Zambia is endowed with an abundant heritage of diversity of culture, languages and biological diversity. According to the Drugs, Poison and Controlled Substances Act of Zambia of 1981, traditional medicine is classified as a substance of

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dependence.<sup>1</sup> Traditional knowledge can be traditional medicine and/or traditional cultural expressions. Most of the African communities and Zambia, in particular, are known for their rich cultural heritage and hence endowed with knowledge that is beneficial to societies even beyond Zambia and the borders of Africa as a whole.

# A. AFRICA'S CULTURE AND ANCIENT TRADITIONAL KNOWLEDGE

Africa today, more than ever before, is known for its traditions, which have stood the test of time to the present generation. Africa's traditional knowledge is enriched by its ancestral customs and unique myriad of languages, each of which contains specific ancient knowledge that constitutes a source of precious wealth, not only for Africa but for the entire humanity. It is enriched by its indigenous peoples, its oral culture perpetuated by the story-tellers, its proverbs, myths and legends<sup>2</sup>, its totems<sup>3</sup>, sorcerers and patriarchs, and its connections with the dead through funerary ceremonies. It is further enriched by its animism at the source of its specific spirituality, its pharmacopoeia<sup>4</sup>, whose proven effectiveness has been preserved by healers to present generations by its unalterable, inexhaustible arts and crafts, its folklore, its songs, its dances, its communitarianism, and the communication which characterizes its people. To this day, Africa still has many assets and treasures for mankind.

It is therefore imperative, in the wake of the foregoing, to protect such traditional knowledge and traditional cultural expressions, which are of value to the whole of mankind. It is well known that African tradition is packed with provisions and laws for all stages of life: birth, adolescence, adulthood, old age, death and beyond, not to mention laws for women, men, marriage, work and many more. Since ancient times, these have helped all members of a community to live out their time in an acceptable manner and in conformity with societal norms and values, and to preserve the species.

# II. BACKGROUND INFORMATION ON TRADITIONAL KNOWLEDGE (TRADITIONAL MEDICINE) IN ZAMBIA

During the colonial period, the era of mostly colonial superialism and imperialism, traditional medicine

 $<sup>^1\!</sup>A$  drug of dependency is defined in the 1981 Act as any fresh or dried part of the plant specified in the same Act.

<sup>&</sup>lt;sup>2</sup> Legends are stories of heroes in the past.

<sup>&</sup>lt;sup>3</sup> Totems are beings, object, or symbol representing an animal or plant that serves as an emblem of a group of people such as a family, clan, group, lineage, or tribe, reminding them of their ancestry (or mythic past).

<sup>&</sup>lt;sup>4</sup> Pharmacopeia (literally, 'drug-making'), in its modern technical sense, is a book containing directions for the identification of samples and the preparation of compound medicines, and published by the authority of a government or a medical or pharmaceutical society.

was denigrated<sup>5</sup> with the advent of Christianity and other religions mainly discouraging the use and traditional practice of knowledge. independence in 1964, the Zambian Government did not enact legislation to regulate traditional medicine or other traditional cultural expressions (TCEs), nor was a clear policy on the practice of traditional medicine (TK) and traditional cultural expressions (TCEs) postulated. Nevertheless, traditional medicine and cultural expressions continued to be practiced and were tolerated by the authorities. Currently, herbal medicine, naturopathy, traditional Chinese medicine, reflexology, spiritualism, and other forms of medicine and cultural ceremonies are practiced in Zambia. Both Zambian and foreign nationals use and traditional and complementary/ alternative medicine with mainly 7ambians practicing other forms of cultural expressions other than traditional medicines.

# A. STATISTICS ON TRADITIONAL KNOWLEDGE (TRADITIONAL MEDICINE) IN ZAMBIA

According to the Pharmaceutical Regulatory Authority (PRA)<sup>6</sup> of Zambia, at least 70 per cent of Zambians use traditional medicine to treat and also cure various ailments. In view of the foregoing, we deduce traditional can that complementary/alternative medicine is used and accepted by a great majority of the population in the country, regardless of ethnic, religious or social background. We can further construe from the statistics of the Pharmaceutical Regulatory Authority of Zambia that 70 per cent of the Zambian population presents a potential market for traditional medicine. According to the records of the Traditional Healers and Practitioners' Association of Zambia (THAPAZ), there are more than 35,000 members of the Traditional Health Practitioners' Association of Zambia, founded in 1978, and thousands of non-members. Therefore, the ratio of traditional healers (registered with THAPAZ) to the whole population stands at 1:371 compared with a ratio of one medical doctor to 13,000 people. We can conclude from this and concur with the Pharmaceutical Regulatory Authority of Zambia that the use of traditional medicine in Zambia is rife and widely accepted among Zambian communities.

#### B. REGULATORY SITUATION

The Government of the Republic of Zambia currently recognizes traditional complementary/alternative medicine and there are national policies on traditional and complementary/alternative medicine. **THAPAZ** reviews and registers traditional practitioners for practice and licensing. Although there are no official for regulatory measures recognizing of practitioners, qualifications policymakers acknowledge that plans are underway to develop such regulations to make the practice more legitimate. Currently, traditional medicine and complementary/alternative medicines are neither integrated with allopathic medicine nor with the national health system. However, Traditional Birth Attendants and Community Health Care Workers practice at the level of primary health care. The National Drug Policy has an entire chapter on traditional medicines, which discusses material medicine but not the practice of traditional medicine. As a result of the foregoing, traditional and complementary/alternative medicines are not covered by any health insurance in Zambia. As a consequence, the importance of traditional medicine in terms of its potential economic benefit in poverty alleviation to practitioners and disease reduction in rural communities is relegated from national development.

## C. EDUCATION AND TRAINING

Currently in Zambia, there is no formal training in traditional or complementary/alternative medicine at any allopathic training institutions. However, this knowledge is often transmitted from generation to generation through storytelling and African unguided learning. This has so far survived years through such transmission up to the present generation. The Africa Regional Intellectual Property Organization (ARIPO)<sup>8</sup> Swakopmund Protocol also recognizes traditional knowledge as knowledge that is distinctively associated with a particular community, collectively generated by community and transmitted from generation to generation. The Protocol, in recognition of the intrinsic value of such knowledge, provides for the protection of such knowledge in member countries, including Zambia.

<sup>&</sup>lt;sup>5</sup> 'Denigrated' means looked down upon or to belittle or disparage the character of something or someone or to defame someone or something.

<sup>&</sup>lt;sup>6</sup> The Pharmaceutical Regulatory Authority of Zambia is a body established by statute in Zambia that is charged with the responsibility to regulate all pharmaceutical products and associated products, including the use of traditional medicine.

National Drug Policy is a policy establishing an autonomous Pharmaceutical Regulatory Authority (PRA) responsible for the general administration of medical drugs in the country, including regulation of supply and the enforcement of drug-related laws.

African Regional Intellectual Property Organization is a regional intellectual property organization for English-speaking African countries that deals with the registration of industrial property under the mandate from member States.

#### D. ZAMBIA'S SITUATION ANALYSIS

Zambia, being a multicultural country with about 72 ethnic groups<sup>9</sup>, has vast traditional knowledge in both traditional medicine and traditional cultural expressions. Rural communities, through their traditional leadership, are mostly the custodians of traditional knowledge and such knowledge ordinarily belongs to those particular societies. Generally, in Zambia, rural communities are associated with high poverty, as well as unemployment, because such communities are highly dependent on subsistence farming and natural factors such as good soil and rain. This has for a long time proved to be and still remains an unsustainable means of livelihood for rural communities. In view of this, there is need to supplement the foregoing with other economic means and undertakings such as harnessing and marketing traditional medicines for the economic benefit of the holders. This is in view of the potential market that already exists in Zambia. Though vast traditional knowledge resides in rural communities, there is still need for a means to harness and derive economic benefits from such knowledge. This can be further reinforced with appropriate international instruments and domestic laws to misappropriation of such traditional knowledge to individuals or groups that are not the owners of such knowledge. This in turn gives society protection for the exploitation of their knowledge. In her concluding remarks on the eighth session of the Intergovernmental Committee on Traditional Knowledge, Genetic Resources and Folklore, Ms Elizabeth Mulenje, a Traditional Chief, said that there was an urgent need to have an international binding legal instrument that would help prevent misappropriation of traditional knowledge to enable local and mostly rural communities to commercially exploit their knowledge.

In the recent past, in Zambia, there has been a proliferation of Chinese herbal medicines as food supplements and traditional medicine for various ailments. Against this background, Zambia is endowed with a lot of natural resources and biodiversity. In view of this, rural communities can effectively market Zambian traditional medicines and commercialize them for the economic benefit of the owners of such traditional knowledge in the medicine markets. However, there are factors that discourage the foregoing. Certain parts of the Zambian urban environment have had a bad perception attached to traditional medicine and hence denigrated it. This was generally in the wake of the influence of religion against traditional forms

of medicine and cultural expressions, which were consigned to rejection as evil practices.

In view of the need to economically empower local people, mainly rural communities, and avoid the misappropriation of traditional knowledge and further avoid biopiracy, there have been debates at the World Intellectual Property Organization (WIPO) General Assembly. These are with regards to the need to provide protection for traditional knowledge in traditional medicines and traditional cultural expressions. The Nagoya Protocol, which was born out of the tenth session of the Convention on Biological Diversity (CBD), to which Zambia has not acceded, aims to protect against, inter alia, biopiracy. The Protocol proceeds from the premise that local people should benefit from the various plants which contain sources of traditional medicine and promote access and benefit-sharing agreements. Furthermore, ARIPO formulated the Swakopmund Protocol to ensure the protection of traditional knowledge. This further gives insight on how the local people, who are the owners of such traditional knowledge, can benefit economically.

In the wake of such efforts to provide adequate protection to the owners of traditional knowledge, Zambia needs first and foremost to accede to the foregoing Protocols in order for rural communities to begin to benefit economically from their traditional knowledge in medicines, especially through Commercialization of traditional protection. medicines would supplement the current financial vulnerability of the subsistence farming industry, which is the current and arguably only preoccupation for rural communities. Zambia, as a country, stands to benefit significantly from the foregoing through income generated and other forms of development that would accrue to the local communities. In echoing the foregoing argument, THAPAZ's president, Rodwell Vongo<sup>10</sup>, urged the Government to help traditional healers financially in order to help train people in traditional medicine. Furthermore, Dr Vongo stated that traditional medicine was a sleeping giant in Zambia, which would bring billions of Kwacha to the nation if the Government invested in it.

Emphasizing the appeal from THAPAZ's president and also learning from countries such as India, China and South Africa, which have invested a substantial amount of money in traditional medicine (Zambia country profile 2010), Zambian communities stand to benefit greatly from the proper use and commercialization of their traditional knowledge. It is, therefore, important for the Zambian

<sup>10</sup> Rodwell Vongo is the President of the Traditional Healers and Practitioners Association of Zambia, an association that oversees the registration of traditional healers and practitioners in Zambia.

<sup>&</sup>lt;sup>9</sup> Tribes that occupied Zambia prior to independence of the country in 1964

Government to invest in research like the foregoing nations. Taking the Sondashi Formula<sup>11</sup>, which is now undergoing clinical trials as a possible cure for HIV/AIDS as an example, policymakers need to awaken to the fact that considerable economic benefits can be derived from traditional knowledge. Though the Government has shown some interest in the foregoing formula, which can be lauded as a good move, such interest alone may be just a drop in the ocean as many other potential medicines are left unnoticed due to lack of political will. The Southern African Institute for Biosciences recently concluded a test on the Sondashi SF 2000 formula and Dr Maharaia stated that:

> To show that it can produce the same ingredients and also to show that it has some biological effects against HIV, which has been demonstrated to this point. The next step before you could actually register such a product is to do clinical. Studies to show that it is safe in humans, and that's where the capsules will be now evaluated in a clinical setting.

He said capsules made from the herb had already been developed to improve patient compliance, and as a refined form of the traditional preparations Dr Ludwig Sondashi was initially using. Dr Maharaj stated that the Centre for Scientific and Industrial Research (CSIR) was in the process of signing an agreement on the issues to do with intellectual property and benefit sharing between all the partners involved, namely the CSIR, Dr Sondashi and the Zambian Government, whom he said were partially sponsoring the clinical study.

According to THAPAZ, many more traditional healers can help with the cure of diseases such as tuberculosis, cervical cancer and prostate cancer among others.

#### III. LESSONS FOR POLICYMAKERS IN ZAMBIA

This section of the article endeavours to examine some of the lessons that can be drawn and possibly implemented by policymakers in order to harness the potential traditional knowledge has in improving the lives of its holders by providing financial benefits.

### RATIFICATION OF THE SWAKOPMUND AND NAGOYA PROTOCOLS

The Swakopmund Protocol was developed by ARIPO, of which Zambia is a member. The Protocol seeks, inter alia, to protect traditional knowledge and traditional cultural expressions or folklore against any misappropriation. Furthermore, the Protocol clearly outlines the procedure for access and benefit sharing of such traditional knowledge. Since Zambia has not acceded to the Protocol, it makes Zambia's traditional knowledge open for exploitation without the owners'-mostly rural people-permission. The current situation will not help rural communities. In the Development Agenda of the country, the Government strives to halve poverty levels by 2015. Mostly, poverty levels, according to the central statistical office of Zambia (CSO)<sup>12</sup>, are rife in rural communities of the country than in the urban areas. The only means that the Government has in the past used is to encourage subsistence farming, which in most instances has proved futile in terms of poverty alleviation. Paradoxically, most of the country's traditional knowledge, which has potential for poverty alleviation if commercialized, is in the same rural communities.

In view of the foregoing, the Government of the Republic of Zambia should ratify both the Nagoya and ARIPO Swakopmund Protocols, which will be able to protect indigenous knowledge against misappropriation, as was the case with the Hoodia<sup>13</sup> extract. Furthermore, policymakers should develop appropriate policies, as well as a regulatory framework, that will be able to help rural communities develop and effectively market their traditional knowledge.

### INVEST IN TRADITIONAL KNOWLEDGE

Against the above mentioned, the Government needs to realize the importance of traditional knowledge with particular reference to the Sondashi Formula, which is undergoing trials for possible curing of HIV/AIDS. In realizing that traditional medicine is coming to the fore as an alternative or complement to conventional medicine, policymakers need to come to the fore as well and invest in extensive research of traditional knowledge, so as to unearth its potential and commercialize successful research findings for the benefit of all stakeholders. Generally, Zambians are urged to take advantage of the availability of Chinese natural herbs to treat various ailments, even as they use conventional

100

 $<sup>^{\</sup>rm 11}$  This is a herbal remedy developed by the former minister of Justice in Zambia, Dr Ludwig Sondashi, which is a mixture of four different herbs with demonstrated properties of curing the HIV virus in HIV/AIDS positive patients.

<sup>&</sup>lt;sup>12</sup> CSO is the central Bureau that collects information on all demographics and other data in Zambia.

<sup>13</sup> The case of the Hoodia Hunger suppressant plant used by the San

people in the Kalahari Desert.

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medicines though the country is endowed with rich knowledge in medicine that has remained untapped. Therefore, extensive investment needs to be channelled towards harnessing the potential of traditional medicine for the benefit of rural communities and the country as a whole.

# C. PROVIDE MARKETING TRAINING SO THAT TRADITIONAL KNOWLEDGE/MEDICINE CAN EASILY BE MARKETED

Successful awareness of traditional knowledge alone may not be enough for rural communities to derive benefits from traditional knowledge. This should be coupled with the need to train rural communities on how best they can brand and market traditional knowledge for it to have market acceptance. Much as people might be alive to the fact that traditional medicine exists in the country, it has no benefit until there is successful commercialization of traditional medicine. Policymakers can provide a platform and help traditional knowledge holders to effectively market their products.

# D. EFFECTIVE REGULATORY FRAMEWORK FOR TRADITIONAL KNOWLEDGE

In order to give more legality to traditional knowledge and instil confidence in the owners and the users of traditional knowledge, it is imperative for policymakers to come up with an appropriate regulatory framework to oversee the practice of traditional knowledge in the country. Though currently the Government acknowledges traditional healers and practitioners of Zambia, it would be of essence if there was a policy to effectively regulate the foregoing, thereby giving legality to the owners of knowledge and preventing misappropriation or 'counterfeiting' of such knowledge.

### IV. CONCLUSION

It is a well-established fact that rural communities in Africa are the most affected in terms of levels of poverty. Zambia, in particular, has most of its population in rural areas, which is predominantly characterized by subsistence farming that relies on natural factors such as good weather and rain. It is the wish of the Government of Zambia to diversify the economy too and come up with alternative sustainable means to alleviate poverty in the country, especially in rural communities. Against this background, given the potential that traditional medicine has in improving lives in rural populations, it is imperative that policymakers tap into this knowledge. There is need to effectively harness the use of traditional knowledge for the economic benefit of the country and humanity. The value of traditional knowledge need not be emphasized, as evidenced by the Sondashi SF formula<sup>14</sup>, which has indicated properties for becoming a possible cure for HIV/AIDS.

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 $<sup>^{14}</sup>$  Sondashi SF 2000 formula is a herbal formula which is claimed to demonstrate properties that can cure HIV/AIDS.