

# Promoting Herbal Medicine in Uganda

Traditional health practitioners  
and government working  
together



## The status of traditional medicine

More than 60% of Uganda's population depends on traditional medicine because it is accessible, affordable and culturally familiar. With an estimated traditional health practitioner for every 200-400 Ugandans (compared to 1 western-trained doctor per 20,000), herbal medicine has long been used to manage a range of common conditions, including malaria, digestive and

respiratory problems, toothaches, skin diseases, and childbirth complications.

This document examines the relationship between Uganda's Ministry of Health and a traditional herbalist, its strengths, challenges and its implications for future policy. The Cross-Cultural Foundation of Uganda worked with the Natural Chemotherapeutics Research Laboratory (NRCL) and a herbalist, Hajji Zakariya Nyanzi, to prepare these pages.

NCRL identified Hajji Nyanzi, a farmer and traditional health practitioner in Mubende district, as exemplary because of his experience, willingness to share information and long standing collaboration with NCRL, the AIDS Support Organisation (TASO) and THETA, the Traditional and Modern Health Practitioners Together against AIDS and other diseases.

## The emerging policy framework

Until recently, there has been only limited recognition of the contribution made by Uganda's traditional health practitioners to primary health care. This is in part because of the colonial legacy, during which culture was branded as negative and primitive (The 1957 Witchcraft Act outlawed traditional medicine and is still on the statute books), and in part because of an education system that rarely values local knowledge.

Efforts are however now being made to promote traditional medicine. The NCRL Director, Dr Grace Nambatya, notes that Government's current interest can be traced back to a 1987 Health Sector review, which revealed Uganda's limping health care system. In spite of this, an invisible hand seemed to be at play, as the health status of Ugandans was not as disastrous as expected: traditional healers were then identified as a key contributor to primary health care. It was therefore recommended that they be brought into the mainstream health sector. The Ministry of Health in time opted for a public-private partnership in which traditional health practitioners would be recognised as private partners. More recently, a new policy on Traditional and Complementary Medicine has been drafted to regulate the practice of traditional medicine, to focus on research and development and to encompass protection, cultivation, propagation and sustainability of traditional medicinal plants. The Ministry has also submitted a Bill for the establishment of a semi-autonomous body, the Uganda National Health Research Organisation, to support the health sector and to coordinate research across a broad spectrum of providers.

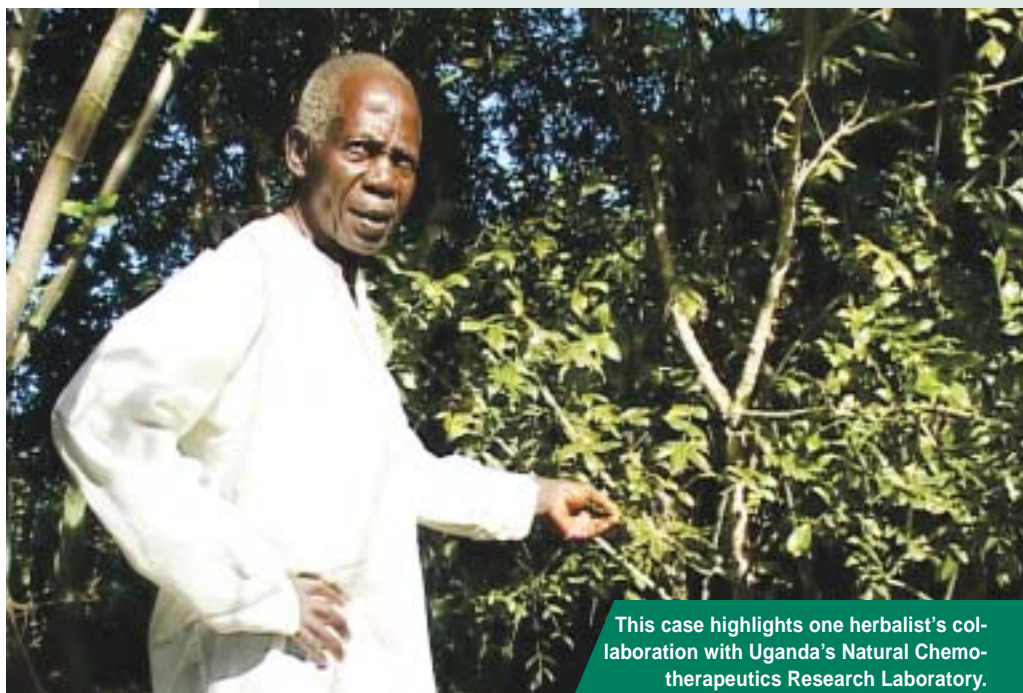
## Summary

More than half the Ugandan population uses 'traditional' medicine, a fact first noted in the 1999 National Health Policy as an important contributor to primary health care. Collaboration between government and the Traditional and Complementary Medicine sub-sector aims at promoting and preserving traditional medicine. This is mediated by the Natural Chemotherapeutics Research Laboratory (NCRL) under the Ministry of Health.

This case study indicates that, while there are clear benefits for all concerned to deepen this relationship, a number of constraints subsist. These include relatively high production and processing costs for traditional practitioners, while limited financial and managerial support is available. This stems in part from a policy vacuum and outdated legislation that constraints the involvement of other actors to validate, promote and invest in the use and commercial production of herbal medicine, to regulate traditional practitioners' practice and to provide effective quality control. Limited knowledge of patenting and intellectual property rights also leads healers to resist disclosing their medicinal knowledge; this is compounded by limited research, analysis and documentation on its benefits, which in turn nourish a negative perception and reluctance to embrace traditional herbal medicine as an important resource.

This case therefore highlights a number of recommendations:

- The existing draft policy framework must be expedited to facilitate collaboration, funding, validation and the development of traditional medicine. Intellectual property rights and patenting need enforcing and traditional practitioners must be informed about policy



This case highlights one herbalist's collaboration with Uganda's Natural Chemotherapeutics Research Laboratory.

provisions and implications, to reduce their anxiety about sharing their knowledge. To the extent possible, validation and registration of traditional herbal medicine needs to be decentralised.

- The traditional healers' contribution to healthcare needs to be recognised by providing funds, facilitating fora where they can discuss their concerns, and referring the public to them. Adequate resources should be allocated (or the necessary linkages created) to facilitate implementation of plans to improve the quality, volume and sustainability of herbal medicine production and use.
- Nationwide comparative research and cost benefit analyses of using traditional medicine are also needed. The commercialisation of herbal medicine should be promoted, and its economic benefit to individual herbalists and the general public highlighted. Traditional practitioners need to be equipped with skills to manage the commercial production and sale of validated medicine, or to link them with public and private organisations that can enhance their services and products for commercial use.
- Aspects of environmental sustainability need to be incorporated in commercial herbal medicine promotion and the establishment of herbal gardens, especially for rare medicinal plant species, encouraged.
- Uganda needs to invest in curriculum development, training and capacity building to sustain existing knowledge and to promote new knowledge through informal and formal education at various levels – community sensitisation, as well as primary, secondary, and tertiary education.



Today, traditional healers have formed associations to represent their collective interests. NCRL provides financial and technical support to practitioners to identify medicinal plants, and to assess the efficacy and toxicity of their herbal medicines, following established standards. Once validated as safe for human consumption, a healer's product is recorded as such, and the healer is encouraged to have his product notified by the National Drug Authority (NDA). After notification, herbalists are required to track and to submit further information on the safety and effectiveness of their products, before registration with the NDA. NCRL gives them advice on these procedures and on expanding the production of medicinal products, where appropriate. It may itself process and package selected medicines as prototype samples.

NCRL also offers training to practitioners through their Associations in herbal garden management and conservation, processing and packaging (including labelling with expiry dates), hygiene and protection against HIV/AIDS. Traditional healers, on their part, provide information on herbal medicine and practices, and share detailed information on the medicines that have proven effective. This contribution is acknowledged on the labels of herbal medicines samples packaged by NCRL.

NCRL has undertaken considerable research to transform raw herbal products into validated,

## Working with the Natural Chemotherapeutics Research Laboratory

The Ministry of Health started to promote research and conservation of medicinal plants with the establishment of the NCRL in 1963. At the time, however, efforts to verify and authenticate traditional medicinal products were in part constrained by the absence of well-established associations of traditional medicine practitioners.

## The validation process

Once a traditional health practitioner has identified herbal medicine that has proven effective, he or she may take it to NCRL, providing information on contents and effects. The unprocessed product is then tested in the NCRL facility in Kampala.

When a practitioner presents herbal medicine already in use, he is requested to submit samples of individually processed ingredients. He is also required to submit whole samples (leaf, seed and flower) for authentication. These may be used as specimens at the Makerere University reference herbarium. The samples are all analysed for standard therapeutic phyto-components and toxic substances. The formular is also subjected to toxicity tests in rats or mice. In some cases, the medicine is sent to Ethiopia, as part of a collaborative network, to further identify and test contents, safety and efficacy.

A report on outcomes in terms of chemical ingredients, implied pharmacological effects and observed toxicity, is generated and used to inform the herbalist about the safety of his formulation. In cases where the validation results are positive, he is encouraged to have his product notified by the National Drug Authority. Once validated, NCRL may also test a remedy on a few patients, after registering with the Uganda National Council of Science and Technology, and monitor their response before the practitioner may take the herbal medicine for registration. After notification, practitioners are permitted to develop the production of their medicine and to advertise it.

registered, well-packaged and labelled medicines: by the end of 2007, 80 products had been notified as safe and effective for public consumption. With positive findings on the effectiveness of traditional herbal medicine on malaria and HIV opportunistic diseases, the World Health Organisation is currently funding further research in this area through NCRL. With training, the quality and presentation of herbal medicine has also improved, thus providing healers with better income. Dr Nambatya also points out that NCRL has come to appreciate the healers' approach to health care: not only do they apply remedies, they also diagnose holistically, referring to the patient's psychology and social, natural and cultural environments.



Chemists testing herbal medicine at NCRL

## Hajji Zakariya Nyanzi

A herbalist of many years' experience, Hajji Nyanzi has consolidated his knowledge and practice by joining various groups promoting traditional medicine: first a local association, the Kitalegelwa Group of traditional healers, then THETA, where his medicine for malaria was assessed, processed and packaged for distribution to the public. He also joined Uganda N'eddagala Lyalyo, a national association of traditional healers, where he learnt about other opportunities to improve his herbal medicine, and was advised to take his products to the NCRL for assessment. Hajji Nyanzi currently supplies herbal medicine to patients within and beyond his community, as well as to NCRL and THETA.

Hajji Nyanzi produces herbal medication in powder and liquid form for malaria, fibroids, and some HIV/AIDS-related conditions (*commonly locally referred to as 'kadamola' [jerry can]*), among others. These have been used by his patients for some years, according to him, to good effect. NCRL and THETA have singled out his remedy for malaria as most effective.

NCRL has trained Hajji Nyanzi in processing and packaging herbal products, in protection against HIV infection, and in managing herbal gardens. The Laboratory has sent some of his products for notification, including for malaria and fibroids, and

Hajji Nyanzi is in the process of registering some of these with the NDA. He welcomes the tests carried out by NCRL and feels these add value and market appeal to his products. The Laboratory packages and sells some of these products, and monitors patients taking his medicine. It also links Hajji Nyanzi to these patients so that they discuss progress or any challenges faced. NCRL pays him for medicines supplied at an agreed price: Ushs 30,000 per 750 grams of his herbal medicine for malaria, for instance. Although not formally contracted by NCRL, the Laboratory recognises his contribution by providing him with some funds to manage his medicinal establishment and to train other healers. In addition, NCRL staff visit him, make reference to his work and refer national and international visitors to him for learning and exchanges.

### A challenging relationship

While the linkage between Hajji Nyanzi and NCRL has presented opportunities and benefits for the parties involved, it has also highlighted challenges.

First, production costs are high, including the local authority's licence to harvest medicinal material from the forest. This involves a long search for plants, carried out on foot or using a bicycle when ferrying bulky items. Hajji Nyanzi uses simple equipment to process his medicine, mostly wooden mortars and pestles. After processing, his products are stored in plastic containers and used bottles, for sale. He has opened several retail outlets in the region, but all closed down because of mismanagement, weak supervision and dishonest shop attendants. Applying the skills acquired from NCRL for drying and packaging herbal medicine is costly, he says - at least Ushs 2 million to buy the necessary equipment - a sum beyond his means. Despite NCRL's inability to do so, Hajji Nyanzi expects to be generously financed, as he suspects that the Laboratory is generating much income from his intellectual property. This would include support to purchase the equipment he needs, justified by his long-standing relationship with the institution and the successful validation of his medicine.

Hajji's also regrets that his link with NCRL is not formalised by a letter, memorandum of

### Registration of herbal medicine

The National Drug Authority (NDA) has developed a simplified 1-page notification format and healers are guided by NCRL staff to fill this correctly. The Authority verifies the information provided by the traditional practitioners with NCRL, which confirms validation by producing the relevant laboratory reports.

Once notified and after two years of testing, traditional practitioners are encouraged to register their product with the NDA, where they complete forms with personal details and information on the specific herbal medicines produced, to meet the minimum national registration requirements. Registration takes place once secondary data, including patients' records, on the effectiveness of the product has been scrutinised. These forms were initially designed for imported conventional medicine and are therefore complex, requiring details of contents. Some traditional practitioners are however not willing to disclose this information and most do not know the chemical composition of their medicine. Only medicines that are well packaged and labelled are registered by the NDA.

The ad hoc committee on herbal medicines of the NDA board is working on frameworks to guide herbal monographs for reference purposes. It is also working in collaboration with the registration and pharmaco-vigilance committee to produce guidelines to inform the advertising process.



Packaged natural medicinal products ready for retail sale

## Hajji Zakariya Nyanzi

Hajji Nyanzi was born in 1924 to a family of herbalists, from whom he learnt his craft. At a young age, he observed and assisted his grandfather, who trained him. But, as Hajji remarks, *“However much they train you, if being a herbalist is not in-built in you, you can never become a true one. That is why there are so many fake ones on the market”*.

Hajji Nyanzi lives on a 10-acre farm. He is assisted by his sons who, he anticipates, will eventually take over from him. They are instructed on which leaves, barks and roots to collect and dry to make medicinal products. These are not only obtained from the rich variety of plants on his farm but also from other parts of Uganda and as far as the Congo. Hajji Nyanzi’s establishment includes a shrine where he diagnoses illness; 4 rooms where treatment is administered, and a pharmacy where medicines (for malaria, mental illness, cancer, cough, lack of libido and poor appetite, HIV-related opportunistic diseases, among others) are stored in glass bottles, plastic jars, bags and buckets. According to Hajji, once well dried, herbal medicines have up to a 2-year shelf life, longer than when diluted with water or other liquid.



Hajji Nyanzi at home

understanding, or identity card. This, he feels, is necessary for his credibility, beyond his name on package labels, and to distinguish him from practitioners who are not linked to the Laboratory and whose products have not been validated.

### Learning beyond the individual relationship

This individual case underlines three observations of broader relevance:

**A policy vacuum** – The current legislation to promote and protect traditional medicine is outdated. The process of policy development has been slow, owing to low prioritisation of traditional medicine in the health sector, limited finances, and insufficient advocacy to make traditional medicine, its benefits and opportunities visible.

Such a vacuum results in several constraints: first, negative perceptions of the value and quality of herbal medicine are perpetuated in the absence of effective quality control and regulation of traditional practitioners’ practice, especially since abuses, including human sacrifices, are known to exist.

A second constraint concerns the protection of intellectual property rights. Partly because they have

been disregarded - even repressed - during the colonial and post-colonial periods, traditional healers are suspicious of the motive of those who have now rather suddenly developed an interest in their knowledge. A limited understanding of patenting and intellectual property rights also intensifies a reluctance to disclose knowledge, for fear of exploitation and that this may be ‘stolen’. Thus, according to Hajji Nyanzi, a number of traditional practitioners are still secretive about the contents of their medicine, resulting in indigenous medicinal knowledge remaining concealed, and some effective medicines not being validated or produced on a large scale. NCRL staff also report that a healer may grow suspicious half-way through a validation process and then withhold some information or withdraw entirely. Similarly, although the NDA is charged with the responsibility of registering products, a fear persists among healers that neither this process nor liberal trade policies provide any assurance that their knowledge will be safeguarded or that they will benefit, should this be utilised by an investor. Registration is also a lengthy, centralised process that requires follow-up in Kampala. This can be costly for traditional practitioners who often live far away and cannot afford to travel to the city regularly. Patenting is then perceived as suitable for commercial traders in or near the city centre.

A third constraint concerns environmental protection. Herbal gardens can provide easy access to medicinal plants, can help to preserve rare and commonly used species and to conserve the environment, in addition to creating employment for traditional healers and small farmers. Herbal gardens and cultivation of rare medicinal plants are therefore essential if benefits are to be sustained. Policies to promote and protect

medicinal plants, such as through controlling the felling of trees with medicinal value for construction or charcoal, are currently inadequate. Other policies, such as on agricultural zoning, farmer cooperatives and commercial farming, could also be adjusted to ensure the sustainability of medicinal plants.

***Income generation, quality and public-private investment*** – Traditional herbal medicine is used by a large percentage of our population and provides a potential source of household income. It is therefore in the interests of traditional healers, development workers, health workers and the private sector to promote the production of quality herbal medicine. Once medicine has been validated or registered, and demand for it has increased, traditional healers are however challenged because they seldom have the capacity to produce in bulk, while maintaining quality. Large scale commercial production of validated herbal medicine requires professional management and presentation skills, which individual practitioners currently lack, although they may have access to sufficient supplies to meet the demand. In some cases, deteriorating quality has been noted, pointing to the need to establish linkages with local industries to invest in large-scale, consistent quality production.

Lack of entrepreneurship skills, including in marketing, packaging and record keeping, also results in limited economic benefit for the traditional healers and may lead to a reluctance to share information with whoever can commercialise their products. In addition, potential investors stay away from commercial traditional medicine production and distribution, because of the absence of the necessary policy framework, leaving traditional healers with limited avenues to access funds. An appropriate policy environment would help in attracting investors interested in joint ventures, with better prospects for profitability for all concerned.

***Accessible research, resources and documentation*** – Research funding is limited in Uganda, and this poses particular challenges in the field of traditional medicine, given the high costs involved (up to U.shs. 40 million per specimen). Validation requires time, specialised and costly testing equipment, with spares that cannot be obtained locally. Sending samples for testing to other countries is also expensive. Neither is NCRL in a position to provide substantial financial support to healers because of its own financial constraints. Having formal relationships is also held back by NCRL's current

legal status, although this is likely to change in the near future, when it will be allowed to enter into formal partnerships with associations of traditional healers. Further, the sample analysis work carried out at NCRL can only guide other agencies, such as the National Bureau of Standards and the Export Promotion Board to give additional assistance to healers.

Limited resources slow down validation, to the disappointment of some healers. Patrick Ogwang, NCRL pharmacist and researcher, therefore observes that, while much useful knowledge exists among healers, the demand for validation far exceeds the capacity of the Laboratory and there are many pending applications. After testing, reports also need to be simplified so that healers can fully understand the results in terms of toxicity, safe dosage, appropriate administration and storage.

With limited research, analysis and documentation, negative attitudes towards embracing traditional herbal medicine as a resource are not dispelled. The benefits of establishing and maintaining linkages between traditional medicine practitioners and modern medical institutions are then difficult to promote. Where advances have been made with this type of collaboration, the benefits and challenges of mainstreaming into modern medical practice also need to be analysed and documented, so that development actors identify areas for intervention and how traditional knowledge may complement their initiatives.

## Conclusions and recommendations

With many of us returning to nature for health and nutritional remedies, a linkage between traditional healers and NCRL presents opportunities from which we all stand to benefit. These benefits could be diverse: the traditional practitioner can gain from sales and his clients from his contribution to primary health care. The Ministry of Health can benefit from savings on imported medicines, and from improved access and quality of herbal medicine for all. The economy can benefit from exports of Ugandan herbal medicine and from gainful employment for smallholder farmers cultivating medicinal plants on a commercial basis. This would help both public and private sectors to see traditional medicine and practice as a resource that can be harnessed, professionalized and turned into commercial gain. Further, collective efforts to promote traditional medicine will not only generate economic and health benefits, but also restore a sense of pride in an important part of our cultural heritage.

## Recommendations

- **Legal framework.** The establishment of the Uganda National Health Research Organisation or its equivalent must now be expedited so that a policy framework, including the policy on Traditional and Complimentary Medicine (TCM), facilitates collaboration, financing, validation and the overall development of traditional medicine. Aspects that deal with intellectual property rights and patenting need enforcing and traditional practitioners informed about its provisions and implications, to help them feel freer to share their knowledge.
- **Policy implementation.** With a wealth of biodiversity and indigenous knowledge, Uganda has the potential to develop traditional medicine into a valuable resource. The traditional healers' contribution to health care in particular needs to be recognised by providing funds, facilitating fora where they can discuss their concerns, and referring the public and other stakeholders to them. This includes using the Traditional Medicine Day to promote herbal products and their use in the prevention and management of disease. Once the TCM policy is approved, adequate resources must be allocated and linkages created to facilitate the implementation of plans to improve the quality, volume and sustainability of herbal medicinal production and use.

Nationwide comparative research, documentation and cost benefit analyses of using traditional medicine are needed to improve their usage. This requires expanded facilities at NCRL and the creation of regional research and testing laboratories, as well as simplified and decentralised validation and registration processes to encourage traditional practitioners to register their products. The promotion of herbal medicine could be included in the terms of reference of Community Development and District Health officers to facilitate their identification, the verification of their effectiveness and to establish the potential for commercial production. This would also help to institutionalise district-level health partnerships: a Private-Public partnership health

desk in every district could host centralised and district information on health resources, including indigenous knowledge. Research findings on the value of traditional medicine could be disseminated via the popular mass media, including radio stations and video halls.

- **Enhancing economic value.** The commercialisation of herbal medicine should be promoted, and its economic benefits to individual herbalists and the general public highlighted as a means to poverty reduction at household and national levels. Clear memoranda of understanding need to be developed to put the traditional healers' expectations into perspective and allow them to negotiate from the onset the benefit they expect from partnership with other parties, including Government. They also need to be equipped with skills to manage the commercial production and sale of validated medicine, or to link them with public and private organisations that can enhance their services and products for commercial use.
- **Environment conservation.** Aspects of environmental sustainability need to be incorporated in commercial herbal medicine promotion and the establishment of herbal gardens encouraged, especially for rare medicinal plant species. Availing land for research and for private sector commercial production would contribute to environmental conservation, in addition to health benefits.
- **Education and knowledge.** Uganda needs to invest in curriculum development, training and capacity building to sustain existing knowledge and to promote new knowledge through formal and informal education at various levels – community sensitisation, as well as primary, secondary, and tertiary education. NCRL needs to respond to the call from the National Curriculum Development Centre to help incorporate traditional healers' knowledge into the relevant educational curricula.

## Acknowledgements

*This publication, produced by the Cross-Cultural Foundation of Uganda, is part of its series of case studies illustrating the importance of adopting a cultural approach for sustainable development. We gratefully acknowledge the financial support of COMPAS for this initiative. Hajji Zakariya Nyanzi, NCRL staff – especially Dr G. Nambatya; P. Ogwang; F. Omujal, N. Nusula – and R. Achola from THETA, are very much thanked for their commitment to the research and documentation process*



The Cross-Cultural Foundation of Uganda, 2008  
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