

African Traditional Medicine and Indigenous knowledge Systems

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Biodiversity and the associated indigenous knowledge (IK) systems are an indispensable basis for developing solutions to Africa's development challenges. Over six decades of research into natural products and medicinal plants in Africa has followed the classical lines of Western phytochemistry and drug discovery, patenting and other intellectual property protection schemes. These approaches have delivered only few products and services that address the needs of the poor and less fortunate people in Africa. Neither have they achieved the requisite human resources, public awareness on conservation and informed policies for the sustainable use of Africa's genetic wealth. It is, therefore, clear that Africa's problems have to be defined and solved by home-based institutions. There have been many isolated and fragmented efforts to document IK in many African countries. At regional level, PHARMEL is a francophone database created in 1986 with the help of the *Agence de Coopération Culturelle et Technique* and whose aim is to gather the data concerning the uses of medicinal plants in folk medicine in 21 African countries. The African Ethnobotany Network (AEN) was founded at the 15th AETFAT Congress held in 1997 in Harare and comprises 27 African countries. Two regional networks on natural products, namely NAPRECA and WANNPRESS, hold impressive data on the botany, chemistry and pharmacology of African biodiversity, while CAMES is a francophone Consortium dealing among other items with traditional medicine. At institutional level, CESRIKI has an ongoing project to document Botswana's IK systems and is working with nearly 100 IK owners and has constructed a 'smart-system' database. Similarly, IMRA has a database containing ethno-botanical data of over 4000 Madagascan plants. At individual level, a scientist in Ethiopia has a database of 25,000 records on African medicinal plants, which includes African MSc and PhD theses, and regional conference proceedings in addition to the usual peer-reviewed journals. In addition, several books, monographs, cederom, dealing with the use of African plants have been written by individuals. It is now timely to coordinate, develop, harmonize and standardize the various isolated and fragmented efforts in developing databases of African medicinal plants. Secondly, many African institutions have insufficient capacity to manage innovations and, consequently, are unable to support the development of products from the R&D efforts of its research institutions. Undoubtedly, what we need most in sub-Saharan Africa is first to instil to African scientists the culture of innovation, fundraising and business, and to engage in product development of standardized phytomedicines using standard Western Medicine for the targeted disease in the positive control arm. Scientists will focus on the diseases that affect their people and will engage in the development of affordable products. At this point, we need first not to follow the Western approach of drug discovery but to shift the paradigm in the evaluation of traditional medicines taking into account the message given by the nature, and then translate the lab experiments into real clinical benefit. We need also to gain knowledge of how the patent and other intellectual property systems work and, how to use these to locally develop and deliver novel products and services derived from the region's rich biodiversity and traditional knowledge; otherwise, we may lose ownership of such innovations.