

Teaching medicinal/wild foods plants through the Curriculum: Challenges and opportunities

[Abstract of M.Sc. Thesis by Innocent BALAGIZI Karhagomba]

This research has been carried out under the domain Phytoecology Didactics. It aims at integrating the teaching of medicinal plants and wildfood plants in classrooms as support for plant biodiversity conservation.

The knowledge and current uses of medicinal/wildfood plants are included in local traditional cultures throughout the world; globally they are utilized as sources of medicines and foods in remote areas and poor communities. In Bukavu city, Democratic Republic of Congo, medicinal plants are domesticated at the household level and related knowledge and practices are shared both by parents and children. Although this subject is related to “Social Sharp Questions”, the teaching of medicinal/wildfood plants does not appear in formal education curricula. This topic should be relevant if the student’s knowledge and practices that are backboneed inside the community are directly brought into the Education system, linking conservation, development and formal education.

This research pursues three objectives which are defined as follows: a) Make an inventory of domesticated wildplants and their uses; b) Define the linkages between domestication and social groups; and c) Determine students’ basic knowledge of medicinal plants in Bukavu. This work stands on the main idea that the basic knowledge and representation of domesticated medicinal plants from secondary school pupils may influence the implementation of relevant school curricula in Biology, focusing on society’s needs.

The research approach is based on Didactic transposition and contract theories. Sampling techniques were provided by basic methodology for social sciences: they were tailored by mapping the study area and selection of key informants, semi-structured interviews, and open-ended questionnaires. The study was conducted in urban quarters (with 1259 key informants) and in 13 schools (with 668 pupils) to get relevant information on domestication, medicinal plant uses, and the way to introduce medicinal plants information into school teachings. This part was completed by medicinal plant collection and identification and statistical analysis. The results show that there is a large diversity of medicinal plants (179 species) that are domesticated in households in Bukavu, for the treatment of 121 common ailments. Among

them, 80 are well known by pupils and 29 medicinal plants have a broad utilization spectrum ranging from 10 to 30 ailments. The social profile of the 1259 key informants that we interviewed showed that Women are more committed than Men in plant domestication (ratio 6 females to 4 males); the groups of businessmen and jobless people; as well as the Ethnic groups of Havu and Luba. The knowledge of medicinal plants is focused on popular urban knowledge with fewer links to tribe's cultures. The pupils (from secondary classes 4 and 5) showed personal interest and motivation for learning medicinal plants in schools programs and some topics were suggested by them, like learning about medicinal uses of plants; the origins and nature of medicinal plants; linking traditional cultures and medicinal plants protection; economic values of medicinal plants; medicinal plants processing and conservation; cultivation of medicinal plants; plants identification; and developing clinics and plants sale enterprises in schools. Didactic diagrams have been developed from learner's representations, didactic contracts, and transposition.

This study calls upon Action-Research for Development (ARD) as a broader strategy for revitalizing social knowledge and practices through educational programs under family partnerships, taking into account competences-based education.

Key words: Wildfood plants, medicinal plants, Phytoecology didactics, teaching of medicinal plants, domestication, curriculum