



## **Networking and resources sharing at regional level, a step of rising awareness on soil resources management and promoting research and capacity building in soil science in Africa.**

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In Africa the life of 2/3 of rural communities strongly relies on the quality of soil due to their dependence to substance farming. Farm productivity in sub-Sahara Africa is so low that farmers cannot meet their basic needs through crop yields and invest in capacity building and research to maintain the key functions of their soils. Universities in Africa have the mandate to train soil experts, but lack the capacity to do so because of shortage of staff, inadequate skills; poorly equipped laboratories, and ill-targeted research. In the 1980s, the National Soil Offices played catalytic roles in the training of current soil scientists; unfortunately most of these offices are no longer functional enough to meet actual needs with regard to the international standards. Aware of the problem the Alliance for a Green Revolution in Africa founded a program of building capacity in integrated soil fertility management in Kenya, Zambia and Burkina Faso. The aim was to strengthen the universities' capacity to train a new generation of young professionals of different levels in soil resources management: postgraduate training of students, short courses for technicians and other staff, and refurbishing and re-equipping soil laboratories. In Burkina Faso, the program allowed to train 15 MSc from Burkina Faso (07), Mali (04) and Niger (04); equipped one laboratory with modern equipment at the Nazi Boni University. One of the main achievements of the program is that it allowed to build curricula in soil science for different target groups: students, technicians, etc. which continued to run after AGRA stopped funding the program. In the light of the accumulated experience in the implementation of this program, the main challenges in implementing capacity building in soil science are: 1) gaps between the needs for support and/or advice in soil science and the availability human resources; 2) the lack of adequate infrastructures and curricula in Universities to carry out training programs; and 3) Economic Community of West African States (ECOWAS) and Economic Community of Central African States (ECCAS) countries are facing aging of soil science specialists, particularly in the field of soil survey. Lessons learned from the implementation of the training programs: 1) the networking and resources sharing at regional level can be an issue to promote capacity building in soil science in Africa; 2) for the technical and financial supports of the training programs, universities need to improve their capacity in funds rising through bilateral and/or multilateral cooperation, 3) in downstream of the training, medium to long term investments are needed for the rehabilitation of the national laboratories to allow the trainees to practice and have impact in their communities.

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