Linking Biotechnology and Agricultural Biodiversity Resources in Holistic Strategy in West Africa

J. J. Baidu-Forson* and R. Lewis-Lettington

1Sub-Saharan Africa, Bioversity International, P. O. Box 30677, Nairobi 00100, Kenya
2Global Coordination Office for Genetic Resources Policy Initiative (GRPI), Bioversity International, P.O. Box 30677, Nairobi 00100, Kenya

*Corresponding author; E-mail: j.baidu-forson@cgiar.org

Abstract

Modern economic activities are heavily dependent on using diversity of biological resources. Africa has a wealth of biodiversity resources which, with the appropriate application of biotechnological tools for conservation and use, can serve as sources of wealth creation. Proper harnessing of the linkages between biotechnology and the diversity of biological resources is required to meet challenges of food security, health, poverty and wealth creation in West African countries. The paper explores some of the key applications of biotechnology for conservation of agricultural biodiversity resources, and considers the potential threat of biotechnology to diversity of genetic resources. It also explores complex issues that inform current policy debates. It concludes that Government support is required for the conservation and breeding of farmers’ varieties, or landraces by public breeding programmes, and the design of private and public mechanisms to ensure that the pursuit of biotechnology does not compromise the diversity in biological resources. It would be strategic for West African countries to establish and explore beneficial linkages between the sub-regional genetic resources conservation initiative and biotechnology programmes. Some pertinent questions are raised on how to best manage the strategic interplay between biotechnology and diversity in agricultural biodiversity resources. The provision of adequate information is highlighted to inform decisions and choices based on the real value and potential risks of biotechnology.