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CAMEROON BIOSECURITY PROJECT

Development and Institution of a National Monitoring and Control System (Framework) for Living Modified Organisms (LMOs) and Invasive Alien Species (IAS)

The designing of a biological invasions monitoring network for Cameroon

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Under the Supervision of:

Project Component Four Taskforce (MINRESI)

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Acronyms and Abbreviations

Acronoym or Abbreviation	Name in full
CBP	Cameroon Biosafety Project
FAO	Food and Agriculture Organisation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS	Global Positioning System
IAS	Invasive alien species
ICRAF	International Center for Research in Agroforestry
IITA	International Institute of Tropical Agriculture
IRAD	Institute de recherché agricole pour le developpement
IUCN	International Union for the Conservation of Nature
LMOs	Living modified organisms
MINADER	Ministry of Agriculture and Rural Development
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINFOF	Ministry of Forests and Fauna
MINEPDED	Ministry of Environment, Protection of Nature and Sustainable Development
MINRESI	Ministry of Scientific Research and Innovation
REDD+	Reducing emissions from deforestation and forest degradation and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks.
TROFOREC	Tropical Forest and Environmental Consortium
UNEP/GEF	United Nations Environment Programme / Global Environmental Facility
WWF	World Wide Fund for Nature

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1. Executive Summary

This report is the product of consultancy 4.3.5 under the GEF funded Cameroon Biosecurity project, with the aim of designing a monitoring network to 'To improve and update the baseline of invasive species distribution at a National level'. The report is based upon information provided by experts in Cameroon through a series of interviews and a two day workshop. It also draws upon information on invasive species monitoring networks from across the world.

A monitoring network uses the iterative cycle of monitoring over a wide spatial scale to provide standardised information at a regional, national or even global level. To determine the most appropriate network design for Cameroon, we discuss three different models: *citizen science*, where data are collected by volunteers and are submitted to a central coordinating unit; *institutional monitoring*, where specialist technicians carry out monitoring as part of their work; and *campaigns* where institutions ask volunteers to work with them to help with punctual monitoring projects. It is suggested that the most effective type of monitoring network for Cameroon would be institutional monitoring with local community support, where projects are coordinated and run by technical institutions and NGOs under the umbrella of the relevant Ministry and that local community members work alongside trained technicians to help in data collection. Basic principles for the design of a good monitoring network are discussed, and tools and protocols for different groups of organisms are also provided.

One important consideration in setting up a network in Cameroon is financing: country-wide and long-term projects are expensive and require yearly funding to work well. Advice from national experts indicates that this may be a constraint to success. Thus, rather than concentrate on the structure and functioning of a national network to improve the baseline for all invasive species, we suggest that it may be more efficient to consider a modular network, composed of independent short-term projects that focus on different areas, or different taxonomic groups and that have tangible goals and small budgetary requirements. The number of projects being implemented at any one time within this framework will depend on funding. These projects would all fall under an umbrella framework managed by a Ministry to improve baseline data in Cameroon on invasive species. To achieve this, data collected from these projects should be stored in centralised databases with a strong GIS component and used to update registers of invasive species distribution that can be made publically available and aid in management decisions.

This consultancy provides the example of three pilot projects that were proposed and developed by National experts. The projects, selected to build on expertise, interest and prior success, are; monitoring invasive plants in Mount Cameroon, establishing a baseline of agricultural pests and diseases in under-surveyed regions of Cameroon, and establishing a baseline distribution of common invasive waterweeds. Project objectives are given for each project, as are guidelines to protocols, suggested institutional involvement, equipment and personnel requirements, and budget estimations. It is suggested that each project would be managed and run by a key institution, but that the overall data collation and coordination of all projects that fall under the network would be coordinated by MINEPDED.