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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)

CONSULTANCY REPORT ON THE PRODUCTION OF A MANUAL ON INVASIVE SPECIES CONTROL SYSTEMS AND PROCEDURES IN CAMEROON

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Under the Supervision of:

Project Component Two Taskforce (MINADER)

&

The Biosecurity Project Coordination Unit

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Acronyms and Abbreviations

CBP	Cameroon Biosecurity Project
DPMH	Direction de la Pharmacie du Medicament
DVM	Disease Vector Management
GEF	Global Environment Facility
IAS	Invasive Alien Species
IRAD	Institute of Agricultural Research for Development
LMO	Living Modified Organism
MINADER	Ministry of Agriculture and Rural Development
MINEPDED	Ministry of Environment, Protection of Nature and Sustainable Development
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINFOF	Ministry of Forestry and Wildlife
MINRESI	Ministry of Scientific Research and Innovation
MINSANTE	Ministry of Public Health
UNEP	United Nations Environment Programme
UNVDA	Upper Nun Valley Development Authority

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Executive Summary

Purpose (context and justification)

The Project Objective of the UNEP/GEF funded Cameroon Biosecurity Project (*Development and Institution of a National Monitoring and Control System (Framework) for Living Modified Organisms (LMOs) and Invasive Alien Species (IAS)*) being executed by MINEPDED is to Increase capacity to prevent and control the introduction, establishment and spread of Invasive Alien Species (IAS) and management of LMOs in Cameroon through the implementation of a risk-based decision-making process.

Within this context of a risk-based biosecurity approach the project advocates using the 'invasive management hierarchy' when planning the management of biological invasions[1]. This concept states that prevention is better than early detection and rapid response, which is better than eradication, which is better than control and mitigation. Within this management hierarchy, there are a wide range of management methods available some of which have been used in Cameroon.

This manual provides a "one-stop shop" for accessing information on management methods available for a range of prominent biological invaders known to be present in Cameroon.

Objectives

The objective of the tender is to produce a short and easy to use manual (in modules) to guide decision-makers on the most appropriate control and management measures to use for established biological invaders, including any LMOs that may become invasive, in their management context.

Methodology

The work was primarily desk-based. A point of departure was the project report on the impact of biological invasions in Cameroon which outlined management methods and the report on an invasive species list for Cameroon which established the species to be considered in this manual. Using these information sources and the international literature, the consultants drafted the

manual which was reviewed by national experts who helped to ensure that the examples used were appropriate for the Cameroonian context. These experts also provided further information

[1] To date, there have been no reported instances of a GMO becoming invasive in Cameroon or elsewhere so the focus will be on non-GMOs. However, the potential of GMOs to become invasive and the need to minimise this risk will be emphasised in the manual.

which was used to draft the manual. Additional updates were made following feedback received from the Component 2 Task Team during their examination of the first draft consultancy report.

Results

The manual has been divided into the following modules:

1) An introduction to biological invasions in Cameroon
2) An Introduction to a systems approach to the management of biological invasions
3) Generic biological invasion management approaches
4) Management approaches for invertebrate plant pests
5) Management approaches for plant diseases
6) Management approaches for invasive plants
7) Management approaches for invasive animals
8) Management approaches for animal and human diseases

Each module is accompanied by a series of questions to enable end-users to understand the concept within each module and how to apply it.

The principal product of this consultancy, the manual on IAS management approaches, comprises of an introductory section in which the rationale for the use of a 'systems approach' to the management of biological invasions is outlined. A systems approach considers the target species or groups of species in the context of the system of which it is a part. This system comprises of the interaction of natural and human systems that together determine the impact of a biological invader and the possible management approaches that can be used singly or in combination as part of an integrated approach to management. Such an approach, which uses a situationally specific management approaches is known as "integrated pest management", the "ecosystem approach" and the "one health" approach in the agriculture, biodiversity conservation and health sectors respectively.

The tools that can be used as part of a systems approach comprise of the range of management interventions that are available for the management of biological invasions. These are outlined in the section on management tools.

Tools available are outlined generically and then per specific taxonomic groups. The taxa chosen were selected to cover the range of those that are listed as invasive species in the project report - List of major invasive species in Cameroon (Project Activity 4.3.1.) in terms of taxonomic representativeness, type of impact, types of management approaches implemented and priority in Cameroon.

Recommendations/ Lessons learnt

Among the lessons learnt in this assignment is the time allocated for producing such an important manual expected to benefit many biodiversity stake holders within and beyond Cameroon. The limited time did not permit a thorough consultative process with experts to fine tune the manual to the realities in Cameroon.

Next Steps in conformity with the CBP logframe

In conformity with the project logframe the following next steps will be taken to build on the outputs of this activity:

1. The findings contained in this report can be summarised in a booklet as part of the project's information pack to be produced under Activity D7 - Consultancy to produce information packs for dissemination nationally, sub-regionally and regionally.

Beyond the CBP it is recommended that this manual is used as a point of departure for developing good management practice guidelines for the invasive species listed under Activity 4.3.1. List of major invasive species in Cameroon (MINEPDED 2015b) and as an input into an awareness raising and capacity building programme on the control of key invasive species in Cameroon