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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 current biosecurity profile from trade and other activities of 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

Abbreviation	Full Name
ANAFOR	National Agency for Forestry Development Support (Agence Nationale d'Appui au Développement Forestier)
ASF	African swine fever
AVRDC	World Vegetable Center
CABI	Centre for Agricultural Bioscience International
CBD	Convention on Biological Diversity
CBP	Cameroon Biosecurity Project
CEMAC	Economic and Monetary Community of Central Africa (or CEMAC from its name in French: Communauté Économique et Monétaire de l'Afrique Centrale)
CHM	Clearing House Mechanism (of the CBD)
CI	Côte d'Ivoire
COCAM	Plywood from Cameroon (Contreplaqués du Cameroun)
CPB	Cartagena Protocol on Biosafety to the Convention on Biological Diversity
CPC	CABI Crop Protection Compendium
CTV	Citrus Tristeza Virus
EU	European Union
F CFA	Central African Franc
FAO	Food and Agricultural Organisation of the United Nations
FFV	Fresh fruit and vegetables
GMO	Genetically Modified Organism
HPI	Heifer Project International
HT	Heat treatment
IAS	Invasive Alien Species
IC	International Consultant
IITA	International Institute of Tropical Agriculture
IMO	International Maritime Organisation
IPPC	International Plant Protection Convention
IRAD	Institute of Agricultural Research for Development
ISPM	International Sanitary and Phytosanitary Measures

IUCN	International Union for the Conservation of Nature
LMO	Living Modified Organism
MINADER	Ministry of Agriculture and Rural Development
MINFOF	Ministry of Forestry and Wildlife
MINCOM	Ministry of Commerce
MINEPDED	Ministry of Environment, Nature Protection and Sustainable Development
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINPOSTEL	Ministry of Post and Telecommunications
MINRESI	Ministère de la Recherche Scientifique et de l'Innovation
MINSANTE	Ministry of Public Health
NBSAP	National Biodiversity Strategy and Action Plan
NC	National Consultant
NPPO	National Plant Protection Organisation
OIE	World Organisation for Animal Health (Office International des Epizooties)
PM	Planting Material
PRA	Pest Risk Assessment
SGS	Société Générale de Surveillance (not translatable into English)
SPS	Sanitary and Phytosanitary Agreement
TCP	Technical Cooperation Project
WTO	World Trade Organisation

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EXECUTIVE SUMMARY

Rationale: The Cameroon Biosecurity Project (CBP) aims to establish an objective risk-based approach to the evaluation of proposed species introductions and introduction pathways. This will utilise a cross-sectoral approach through the execution of pilot risk-based, systematic and transparent decision-making processes for the management of biological invasions. Such an approach requires knowledge of the existing status of importation pathways (current biosecurity profile). This report outlines this profile. This is the baseline upon which to build a systematic biosecurity approach starting during and after the CBP implementation period.

Purpose: The work documented in this report has the following principal objective: to produce a comprehensive report on the current biosecurity profile through trade and other activities of Cameroon through the identification of the main pathways for species introduction that currently apply (the 4-Ts - trade, transport, travel and tourism). The report is based on the collection of importation and other data from all organisations that are involved in monitoring/regulating border and other activities. The report lists the main commodities imported into Cameroon over the last few years and identifies the biosecurity risks that they pose. The risks differ depending upon the type of commodity imported, the method of import and its geographical source. This information is used to identify the main risk pathways in order for the specific risks to be quantified using risk analysis methods so that appropriate risk management options can be identified and effectively applied.

The leakiness of Cameroon's many land border crossings allows people to cross at unofficial entry points along the border in order to avoid biosecurity procedures. In addition, most of these borders do not represent ecological boundaries so species found either side of the border are likely to disperse naturally between Cameroon and her immediate neighbours. Also it is not possible to control all IAS across land borders. The focus of this report, therefore, is on species that originate from areas remote from Cameroon and on international ports and airports as pathways of invasion.

This report looks at the current risk pathways into Cameroon and does not address LMOs in detail as there has only been one official LMO import into Cameroon to date.

Methods. Information on imports into Cameroon was collected and compiled from a variety of sources:

- Total imports into Cameroon by commodity for 2007, 2008, 2009 & 2010 from the Ministry of Commerce and SGS[1] Douala Sea Port
- Import of plant commodities by product and source country for 2011, 2012 and 2013 (up to May) from MINADER
- Import of animal commodities (milk, meat & fish, meat and fish products, and pets) for 2009 and 2010 from MINEPIA
- Total import of bovine semen, poultry parent stock, day old chicks and eggs in 2012 from MINEPIA

Information on the importation of plants and plant products was obtained from import permits which indicate what permissions were requested but not what was actually imported. The latter information can be found in import clearance certificates.

It was not possible to obtain information on the movement of people into the country as the emigration and immigration authorities of the General Delegation for National Security did not collaborate. We were unable to get precise information on ballast water management.

Results Import figures where highly aggregated so did not contain precise information on the country of origin or exact type of product imported. For example, it was unclear whether imported rice was milled or unmilled. The latter would pose a greater biosecurity risk. Second-hand agricultural machinery, which could constitute a risk if not thoroughly cleaned, was not explicitly listed. Information on the import of timber products was imprecise in terms of species imported and the degree to which the product had been processed.

Ninety-two companies or organisations requested import permits for approximately 116 plant species[2] during the approximately 28 months for which data was collected. The vast majority of imports were for processing or sale with much smaller quantities for cultivation. A small but significant category was categorised as ‘consumption’ which means that the import was sold directly for consumption without any further processing. Virtually all seeds were imported for cultivation. A very small number of import permits were for research purposes.

The vast majority of imports were requested from EU countries (74% of the total quantity by weight) with the other regions showing single figure percentages. Other African countries combined only constituted 7% of the total. EU countries also dominated the trade in animal

[1] SGS stands for Société Générale de Surveillance. It offers pre-shipment inspections, testing for suppliers and verification services for a variety of sectors including agriculture, livestock, industry, minerals, oil, gas, etc.

[2] The number of “species” listed is approximate as in most cases permits did not list the plant’s scientific name

and animal products though fish imports were mainly from African countries. Numbers of pets imported were very low.

Although the data was imperfect, an indicative biosecurity risk profile for Cameroon was constituted. Using the import request data, we can identify the following three pathway groups:

Group 1: Vegetative material that is imported for consumption. This is fresh fruit and vegetables (FFV) and is the lowest risk as it is generally short lived. However, it does provide a pathway for a wide range of insect pests, notably fruit flies. Vegetables grown in soil present an opportunity for soil borne pests (fungi, bacteria and insects) to enter.

Group 2: Seeds for sowing. The main risk is in the import of seed-borne diseases and pests. However, this is not likely to be a high risk as the commercial integrity of the seed ensures its continuing sale, so poor seed sources are discarded. It is apparent that most seed imports are purchased regularly from the same sources. It is therefore likely that these sources provide seed that is commercially acceptable and does not provide a pathway for the introduction of pests and diseases that would have a commercially economic impact.

Group 3: Vegetative material for growing. An example is the import of seed potatoes. The sources of this material seem to be the same each year and assumed to be from certified sources. It is likely that this trade has been going on for years and the risks have already been assessed as acceptable. There seems to be regular imports of new germplasm from IITA, such as maize, soybean, sorghum and other beans.

Risk products and pathways. The main trade in high risk products concern: onions and other alliums (garlic and shallots), beetroot, brassicas, citrus, cucurbits, tomato and potato.

We focused on trade from South America and Asia which may present the main threat as they are areas far away from Cameroon and have different pest profiles. Risk products and pathways include citrus from China (159 pests in China that are not in Cameroon); Cucurbits from China (52 quarantine pests of cantaloupe); and kiwis from Argentina (16 major pests). Grain imports present a risk depending on treatment and storage.

The importation of live animals and animal products requires an authorisation from MINEPIA. There are units of the Ministry at the points of entry into the country to monitor this. Generally, authorisation is not given for importation from countries having diseases of economic importance (e.g. avian influenza) or important zoonoses (e.g. rabies).

Most fish imported are dead fish for consumption and are likely to constitute a minimal biosecurity risk. However, it is possible that some are used as bait fish in which case they

could bring in diseases. Pet fish could become invasive in Cameroon although the data indicate that no fish are officially imported into Cameroon for the pet trade. Aquaculture imports can be a concern but we did not receive any information on aquaculture imports.

The biosecurity risk is likely to be very low for milk and milk products as they have been transformed and packaged in sanitised conditions. The biosecurity risk is also low for bovine semen. Risks from imported pets would appear to be low because of the small numbers.

Cameroon imports all kinds of wood products and wood packaging material such as crating, dunnage and pallets which may inadvertently transport many bark- and wood-infesting insects. All forms of untreated timber or wood products present a biosecurity risk. Unfortunately, it was not clear from the data obtained whether the imported timber or products were treated before import. Another major omission was the lack of information on the country of origin of the material.

Guidelines for regulating wood packaging were instituted by an order of MINADER in 2006 under which all wood used in international trade should be treated as specified. The implementation of this order has been hampered by lack of appropriate infrastructure.

A lot of vehicles and other machinery are imported into Cameroon. Second-hand machinery can be contaminated with soil and may harbour invasive species in other ways, e.g. mosquitoes in water in second-hand tyres. Most countries prohibit the import of soil, so cleaning of cars and agricultural machinery is the norm. However, without access to an operational manual we are unable to determine if this is done in Cameroon.

A law to comply with international norms of inspection of ships' ballast water was proposed three years ago by the Ministry of Transport and but it has not yet been submitted to Parliament.

Discussion and recommendations. There were major constraints in the data made available which mean that we cannot produce a precise profile of the kind that could be constructed for a country with a more robust system of data collection, compilation and sharing/dissemination.

A major information gap was the lack of detail on the importation process – what conditions are applied in terms of certification? What inspection process is undertaken? And what is available in terms of post-entry quarantine? We were unable to establish if operational manuals for inspection existed; and if they did exist, how up to date these manuals were and whether there is the capacity for their utilisation. This information is fundamental.

The CBP represents a strategic opportunity to integrate biosecurity in the country using a targeted pathways-based approach. Collaboration and integration in terms of policy and legislation, technical expertise and operational capacity can be built around international standards with the project acting as a catalyst for concerted action. A second strategic opportunity is the relatively low number of companies and organisations who import commodities into Cameroon. With well-crafted communication messages, it should be possible to easily access this group to increase awareness of the risks involved and the recommended biosecurity measures to minimise these risks. Responsible importation can be seen as a marketable asset by these companies in terms of environmental and social responsibility and safeguards. A third strategic opportunity is systematising the risk analysis process for the management of LMOs. This will cover LMO imports, exports, transit movements, and possible future developments by scientists in country.

The following recommended next steps can be undertaken in collaboration with the CBP and the concerned stakeholder groups

Review relevant biosecurity policy and institutional framework: So that legislation is complete, comprehensive and complies with international guidelines. Also powers must be in place so that species movements can be controlled. This work is being spearheaded under Component 1 of the CPB - *Establish policy, regulatory and institutional framework*.

Build technical expertise: build sufficient capacity to conduct risk analysis and diagnostics. This includes the capacity for adequate data collection, compilation and dissemination. This work is being spearheaded under CBP Components 2 (*Implement sustainable biosecurity strategies*) and 3 (*Capacity building*).

Build operational support: It is essential that front line staff have the assistance and support to know what they are doing and why. They need to know why they are keeping records and what actions to undertake when a consignment comes in. For this they need training, operational manuals, rapid decision tools/diagnostics (Component 2). Traditional paper manuals are large and difficult to update. Through the CBP it will be possible to develop electronic manuals which can be loaded onto tablets and hyperlinked to international standards, legislation and import conditions.

Communicate with importers: Under CBP Component 4 (Information and communication) information on the risks of certain trade pathways and the measures required to minimise those risks can be shared with importers for the improvement of biosecurity in the country.

This can be institutionalised through the Biosecurity Portal as a repository for up to date information and guidance to practitioners including front line staff