

## **Bioinvasion and Global Environmental Governance: The Transnational Policy Network on Invasive Alien Species**

### Madagascar's Actions on IAS

#### **Description<sup>5</sup>**

The Republic of Madagascar, an island state in the Indian Ocean off the southeastern coast of Africa, gained independence from France in 1960. The main island Madagascar—the fourth largest island in the world—has a population of about 20 million and a variable climate: tropical along the coast, temperate inland, and arid in the south. The Republic of Madagascar has a high rate of endemic species, according to the Convention on Biological Diversity, of the 14 000 vascular plants in the country about 80% are endemic.<sup>10</sup> Madagascar is a semi-presidential democratic republic, whereby the Prime Minister of Madagascar is head of government, with a multi-party system. Since the mid 1990s, Madagascar followed a World Bank- and IMF-led policy of privatization and liberalization. Agriculture, including fishing and forestry, is a mainstay of the economy, accounting for more than one-fourth of GDP and employing 80% of the population.

#### **Overview of Biodiversity**

Madagascar, a tropical island, possesses extraordinary conditions for a high rate of species endemism. For example, 80% of the 14 000 vascular plants present in the country are endemic species. In the cases of snakes and chameleons, the endemism rate amounts to an exceptional 96%. Thus, the situation of threatened species becomes extremely important, especially for those that cannot be found anywhere else on the planet.

- [CBD Country Profile](#)
- [Earth Trends Country Profile on Biodiversity and Protected Areas](#)

#### **Legislation relating to IAS**

- Mise en Compatibilite des investissements avec l'environnement decree
- The Phytosanitary Law (No. 86-017, Nov. 3, 1986)
  - o Decree No. 4736/2002
  - o Order No. 4735/2002

#### **Government Agencies/Programs/Ministries dealing with IAS**

- [Ministry of Environment, Water, Forests & Tourism](#)
  - o [National Office for the Environment](#)
- [Ministry of Agriculture, Animal Husbandry & Fishing](#)
  - o [Phytosanitaire et l'Inspection des Végétaux \(SPIV\) d'Antananarivo](#)
  - o [Le Centre Technique Horticole d'Antananarivo \(CTHA\)](#)
  - o [Le Centre National de Recherche appliquée au Développement Rural \(FOFIFA\)](#)

### Major Invasive Alien Species<sup>1</sup>

[Achatina fulica](#) (mollusc)  
*Clidemia hirta* (shrub)  
*Psidium cattleianum* Sabine (shrub, tree)  
[Eucalyptus robusta](#) (tree)<sup>2</sup>  
*Lantana camara* (shrub)  
*Syzygium jambos* (tree)  
[Technomyrmex albipes](#) (insect)

### Native Species Exported/Introduced to Non-Native Environments<sup>1</sup>

[Bambusa vulgaris](#) (grass, tree)  
[Commelina benghalensis](#) (herb)  
[Elaeis guineensis](#) (palm)  
[Euglandina rosea](#) (mollusc)  
[Monomorium pharaonis](#) (insect)  
[Perna perna](#) (mollusc)  
[Ricinus communis](#) (tree, shrub)  
[Rubus pinnatus](#) (shrub)  
[Salvinia molesta](#) (aquatic plant, herb)  
*Senecio madagascariensis* (herb)

**Table 1 Actions to prevent, detect and manage IAS categorized into three themes: biodiversity, human health, and economic**

*Note: Actions (such as projects, publications and programs) are classified according to the most obvious theme but may also fit into the dimensions of another.*

Theme	Action
Biodiversity	<ul style="list-style-type: none"> <li>The government of Madagascar established 15 new conservation areas in 2007 encompassing a total of 2.65 million acres (about a million hectares) increasing protected territory to more than 9 million acres (3.7 million hectares) on Madagascar, which traditionally has had a poor conservation record.<sup>11</sup></li> <li>According to Madagascar's "Stratégie Nationale pour la Gestion Durable de la Biodiversité" two protected areas are threatened by invasive species, some of which are agricultural.<sup>12</sup></li> </ul>
Economic	<ul style="list-style-type: none"> <li><a href="#">Ministry of Agriculture, Animal Husbandry &amp; Fishing</a> responsible for quarantine systems.<sup>4</sup></li> <li>The MECIE decree (Mise en Compatibilite des investissements avec l'environnement) requires that all development projects, public and private, undertake an environmental impact assessment, which accounts for the potential for accidental introductions of IAS.<sup>4</sup></li> <li>The Phytosanitaire et l'Inspection des Végétaux (SPIV) is responsible for the proper implementation of the Phytosanitary Law (No. 86-017, Nov. 3, 1986), organizing plant quarantining and phytosanitary control in the country.<sup>6</sup></li> </ul>

	<ul style="list-style-type: none"> <li>• Decree No. 4736/2002 outlines requirements for the import of plant and plant products, including the phytosanitary certificate, with preceding inspections taking place prior to shipment. Article 9 outlines phytosanitary measures to be taken in the event the precautionary measures have not been followed through, including disinfection, sterilization, and return of infected product to the exporter country. Phytosanitary measures required of the exporter before shipping of the product include: quarantining; inspection and certification (of the product and/or production facilities); sampling of goods for scientific analysis; processing goods exposed to pesticides or fumigation.<sup>8</sup></li> <li>• Order no. 4735/2002 establishes quarantine measures and conditions, indicating that specimens should be quarantined upon entry in greenhouses and facilities in the SPIV, such that (Article 5) they are physically isolated; visually inspected upon entrance and regular intervals; and sampled for pests.<sup>9</sup></li> <li>• To import plants, application has to be filled with the SPIV for a permit which will then be sent to the <a href="#">Ministry of Agriculture, Animal Husbandry &amp; Fishing</a>.<sup>7</sup></li> <li>• <a href="#">Madagascar : Phytosanitary context</a> <ul style="list-style-type: none"> <li>- <a href="#">The most important harmful organisms in horticulture and gardening in Madagascar</a> This list of harmful organisms is of economic importance presently in Madagascar; it is not meant to be exhaustive but rather just covers the principle ones.</li> <li>- <a href="#">The principle phytosanitary products authorized for sale in Madagascar</a></li> <li>- <a href="#">Professionnels de la protection des végétaux à Madagascar</a> This link presents information on the missions and contact information of the following organizations: le SPIV, le SQ, le FOFIFA, le CTHA, le CTHT.</li> </ul> </li> </ul>
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**Table 2 Actions on IAS in cooperation with other countries**

Agreement/ Organization	Countries/ Member	Action
<a href="#">Programme Régional de Protection des Végétaux dans l'océan Indien</a>	Comores, Seychelles, Maurices, Réunion, and Madagascar	<p>The regional program for plant protection known under the acronym « PRPV », was launched in 2003 and will end in 2008. It is financed by the European Development Fund ( EDF) for a total of 4,85 millions euros and by Réunion (France, territorial communities and Regional European Development Fund) for a total amount of 1,24 millions euros.</p> <p>The PRPV has been created in order to upgrade the quantitative and qualitative standards of the</p>

		<p>horticultural products so as to ensure, in priority, the supply of the regional markets and, as far as possible, to reach new export markets.</p> <ol style="list-style-type: none"> <li>1. Promote and develop operational, scientific and technical cooperation between the countries of the region for phytosanitary matters.</li> <li>2. Promote the trade of horticultural products among the member states and others and, also, increase significantly the standard of living</li> </ol> <ul style="list-style-type: none"> <li>• <a href="#">Creation of a « Crop Protection Network for the Indian Ocean »</a></li> <li>• <a href="#">Regional harmonization of phytosanitary legislations</a></li> <li>• <a href="#">Quality control of agricultural and phytopharmaceutical products</a></li> <li>• <a href="#">Applied research on phytopharmaceutical products and biological control methods</a></li> <li>• <a href="#">Support, advice and training for producers and partners of the horticultural sector</a></li> </ul>
<p><a href="#">Phytosanitary Convention for Africa (CAB/LEG/24.4/11)</a></p>	<p>Organization of the African Unity</p>	<ul style="list-style-type: none"> <li>• Article II: Each Member State shall take such measures of quarantine, certification or inspection, or such other measures as may be considered necessary by the OAU in respect of any living organisms, plants, plant material, seeds, soil, compost or packing material (including containers) and any other article the importation of which has been considered by the OAU to constitute a threat to agriculture in any part of Africa.</li> <li>• Article IV: Each Member State shall prohibit, for such period of time as the OAU may propose, the importation of any living organisms, plants, plant material, seeds, soil, compost or packing material (including containers) and any other article the importation of which the OAU has considered shall be refused admittance into any part of Africa. [does not specifically mention IAS]</li> </ul>

## Article

[Trading technology for land: Madagascar, the huge Indian Ocean island state, has plenty of land but not enough land use; Mauritius its tiny neighbour has the capital and expertise to use land profitably but not enough land. Nasseem Ackbarally reports on initiatives to dovetail the two needs](#)

[African Business, March, 2006](#) by [Nasseem Ackbarally](#)

[...]

Madagascar could become the main source of food products for Mauritius, as there is little land left on Mauritius for agricultural, tourism and economic development. The government in Mauritius is encouraging its entrepreneurs to go to Madagascar and cultivate the land there to supply food crops to Mauritius and other countries, launch tourism activities and bring back foreign exchange. The UN Food and Agricultural Organisation (FAO) played a crucial role in organising a trade mission of Mauritian entrepreneurs to visit Madagascar last January to see for themselves the possibilities that exist in agribusiness, thereby developing a viable model of regional economic development.

[...]

The political will is clearly defined, but certain technical aspects still pose major obstacles to potential investors. One such obstacle is the mass of phyto-sanitary regulations concerning the importation of agricultural goods from Madagascar into Mauritius. Malagasy officials and the private sector both insist on the need to relax the measures imposed by Mauritius, arguing that the two countries should not become prisoners of international standards. "Let us discuss the setting up of bilateral standards between our two countries," Randriarimanana says.

"Phyto-sanitary rules are vague and apart from potato and sugar cane, I do not know anything about the other products," claims Herintsalama Rajaonarivelo, Head of the Union of Malagasy Operators (Fivmpama).

Mauritius must insist on international standards, states Boolell, although he does say that Mauritius is open to discussions on phyto-sanitary aspects. But Ran-driarimanana argues that Mauritians living in Madagascar do not fall sick after consuming Malagasy products so, for him, it appears perverse that exporting the same products to Mauritius might pose a health risk to Mauritians.

Because of the strict phytosanitary regulations, Madagascar could only export nine tonnes of potatoes to Mauritius last year although 500 tonnes were available. This year, Madagascar expects to cultivate 15,000 tonnes of the vegetable with the help of Mauritian entrepreneurs, and with better organisation and the setting up of processing plants and cold rooms funded under the Millennium Challenge Account, Madagascar expects to export more potatoes to Mauritius. Although 17,000 hectares of agricultural land are available for potato cultivation, only 3,000 hectares are presently exploited. The objective is to extend this area to 4,000 hectares by 2007 and also to raise Malagasy exports so that they constitute 50% of all Mauritian imports by 2010.

Presently, Malagasy exports mainly potato, onion and small peas, representing just 2% of Mauritius' food imports.

[...]<sup>3</sup>

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