

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

Senegal's Actions on IAS

Description³

Senegal formally attained independence from France on the 4th of April, 1960. Since then the country has managed to remain one of Africa's most stable democracies, despite an ongoing conflict. It is presently home to about 12.8 million people. The country encompasses 196,000 square km, situated along the Atlantic Ocean. It borders the Atlantic Ocean to the west, Mauritania to the north, Mali to the east, and Guinea and Guinea-Bassau to the south. Gambia cuts through part of Senegal's landmass, sharing its entire border with the country. Senegal's main trading partners are France, Mali, the Netherlands, China, India, the UK, and Gambia. Its chief imports are food and beverages and fuels, while its exports consist of fish, peanuts, petroleum products, phosphates and cotton. It is a member of the West African Economic and Monetary Union.

Overview of Biodiversity

At present, Senegal's wild fauna can only be found in national parks and reserves. The Niokolo Koba National Park alone holds 330 species of birds, 80 species of mammals, 60 species of fish, 36 species of reptiles, and 2 species of amphibians. In total, 10% of the country's territory is currently under protection. The Senegal River Delta, another highly interesting site with respect to biodiversity, is the only ecosystem affected by invasive alien species issues.

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

Legislation relating to IAS

- A bill on biosecurity is currently being developed⁴
- [African Convention on the Conservation of Nature and Natural Resources](#) (Revised version 2003) Article VIII. VEGETATION COVER
 1. The Parties shall take all necessary measures for the protection, conservation, sustainable use and rehabilitation of vegetation cover. To this end they shall:
 - b) take concrete steps or measures to control fires, forest exploitation, land clearing for cultivation, grazing by domestic and wild animals, and invasive species;

Government Agencies/Departments/Ministries dealing with IAS

Ministère de l'Urbanisme, de l'Habitat, de l'Hydrauliques, de l'Hygiène et de l'Assainissement

Major Invasive Alien Species¹

[Anredera cordifolia](#) (vine, climber)

[Bemisia tabaci](#) (insect)

[Dalbergia sissoo](#) (tree)

[Eichhornia crassipes](#) (aquatic plant)

[*Hypnea musciformis*](#) (algae)
[*Leucaena leucocephala*](#) (tree)
[*Paspalum vaginatum*](#) (grass)
[*Poecilia reticulata*](#) (fish)
[*Prosopis spp.*](#) (tree, shrub)

[*Psidium guajava*](#) (tree, shrub)
[*Salvinia molesta*](#) (aquatic plant, herb)
[*Trogoderma granarium*](#) (insect)
[*Vibrio cholerae*](#) (micro-organism)

Native Species Exported/Introduce to Non-Native Environments¹

[*Dioscorea bulbifera*](#) (herb, vine, climber)
[*Erythrocebus patas*](#) (mammal)
[*Lates niloticus*](#) (fish)
[*Oreochromis aureus*](#) (fish)
[*Panicum repens*](#) (grass)

[*Pennisetum ciliare*](#) (grass)
[*Pennisetum polystachion*](#) (grass)
[*Rhizophora mangle*](#) (aquatic plant, tree, shrub)
[*Tilapia zillii*](#) (fish)

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"> • Overcoming Invasive Species in the Senegal River: Building Partnership to Mobilize Resources: Beginning 2000, the GEF Small Grants Programme in Senegal has supported Association Diapanté, a local NGO to address the problem. Diapanté has worked closely with another local group, the Civil-Military Committee to Support Development (CCMAD), to carry out this project. Diapanté has taken responsibility for administrative management, including fundraising, distributing information, and raising awareness, while CMAD has undertaken execution of the project activities, including organizing teams of volunteers to actually go out on the river to pull out the invasive plants and protect them from future invasions. (GEF and UNDP) • According to Senegal's Third National Report to the CBD, the number of invading exotic species known does not exceed 10 (at the time of publication, which is unknown).⁴ • The risks related to the introduction of <i>Salvinia molesta</i> were evaluated and management plans were set up. Measures were then taken to control and eradicate this species, which threatens the ecosystem of low Delta of the Senegal river. The ecosystem of interior water (Delta of the Senegal river) is the only one concerned with the invading exotic species.⁴
Human health	<ul style="list-style-type: none"> •
Economic	<ul style="list-style-type: none"> • According to Senegal's Third National Report to the CBD, the control exotic invading species is done on multiple levels through all points of entries (land borders, port and airport). The importation of

	an animal species and/or vegetable is subjected to declaration and authorization. ⁴
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Table 2 Action on IAS in cooperation with other countries

Agreement/ Organization	Countries/ Organization	Action
Meeting: Drafting of legal and institutional frameworks for the management of invasive alien species ² (funded by World Bank)	25 Parliamentary and Ministerial legal experts from 11 Francophone African countries and GISP. Funded by the World Bank and the Dutch government	There are six modules to the Drafting of Legal and Institutional Frameworks for the Management of Invasive Alien Species; they are under the Invasive Species Training Courses , which were created by the Global Invasive Species Programme.
Project: Development of the Transborder Biosphere Reserve (of Djoudj and Diawling)	Senegal and Mauritania	The co-operation between Senegal and Mauritania made it possible to define axes of management concerning the installation of a Transborder Biosphere Reserve (parks of Djoudj and Diawling) of which one of the aspects relates to the fight against invading exotic species. ⁴

Case Studies

[Ramsar Advisory Missions: Report No. 42, Djoudj, Senegal, and Diawling, Mauritania \(2000\)](#)

Salvinia molesta first appeared in the Senegal River delta in September 1999 and has spread since then to many bodies of water and water basins, disturbing the existing biological equilibrium and threatening human health as well as the overall ecological and economic characteristics of the delta. This invasive species directly threatens the Parc National des Oiseaux du Djoudj, included in the Montreux Record in 1993 and formerly placed on the list of UNESCO World Heritage sites Danger in 1984, and the Parc National du Diawling in Mauritania.

After field visits and meetings with the institutions involved, the mission feels that the threat of *Salvinia molesta* to the ecosystem of the Senegal River basin and to the economic, social and ecological functions of the Parc National des Oiseaux du Djoudj and the Parc National du Diawling is very serious and merits the continued and constant attention of local officials, national leaders at all levels and the international community.

Measures should first be aimed at preventing the entry and growth of *Salvinia molesta* in the backwaters of the tributaries to these two national parks. Next, a revised management plan for the Djoudj and Diawling parks should be prepared in order to obtain additional financing for the programmes managed by IUCN.

Listing of the Parc National du Diawling in the Montreux Record is highly recommended in order to bring the threat to the attention of the international community and to begin eradication in partnership at the local, national and international levels. The Parc National des

Oiseaux du Djoudj should be added to the list of UNESCO World Heritage sites in Danger, and this has the support of the governments of Senegal and Mauritania.

It is also urgent and necessary to recognize the important function played by the buffer areas around Djoudj and Diawling (Trois Marigots and the Dioup-Keur Macène system), by designating them as Ramsar sites in addition to existing designated sites on both sides of the river.

At the international level, it is also urgent to inform public opinion about the dangers threatening the delta. National and international media should be used, specifically through targeted articles in nature or conservation publications, before the *Salvinia* problem becomes a regional disaster.

References

1. Global Invasive Species Database. (2008) "Senegal." Retrieved 15 December 2008, from <http://www.invasivespecies.net/database/species/search.asp?st=sss&sn=&rn=Senegal&ri=19388&hci=-1&ei=-1&fr=1&sts=&lang=EN> and <http://www.issg.org/database/species/search.asp?sts=sss&st=sss&fr=1&Image1.x=0&Image1.y=0&sn=&rn=Senegal&hci=-1&ei=-1&lang=EN>
2. The World Bank. (no date) "Senegal: Invasive species can cause serious ecological, environmental, and health impact, says World Bank." Retrieved 17 December 2008, from <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/SENEGALEXTN/0,,contentMDK:21578582~pagePK:1497618~piPK:217854~theSitePK:296303,00.html>
3. Country descriptions are compiled from the Central Intelligence Agency's World FactBook, available at <https://www.cia.gov/library/publications/the-world-factbook/>, and Wikipedia: The Free Encyclopaedia, available at http://en.wikipedia.org/wiki/Main_Page.
4. Convention on Biological Diversity. (no date) "Third National Report to the CBD." Retrieved 16 July 2009, from <http://www.cbd.int/doc/world/sn/sn-nr-03-fr.pdf>