

Environmental and Economic Impacts of Invasive Species on Africa's Forests and Wildlife Resources

By Paul Bosu, FORIG & FISNA

Defn.: *Biotic agents, not native to a particular ecosystem whose introduction does, or is likely, to cause harm to the forest ecosystem - FISNA*

Plant invasives

- *Prosopis* spp
- *Chromolaena odorata*
- *Lantana camara*
- *Acacia mearnsii*
- *Broussonetia papyrifera*

Insects

- *Cinara cupressivora*
- *Leptocybe invasa*
- *Sirex noctilio*
- *Thaumastocoris peregrinus*
- *Aonidiella occidentalis*

Ecological impacts

- Compete with native species & disrupt natural succession
- Decrease biodiversity & wildlife habitats and food sources
- Increase fire frequency
- Harbour pests and diseases
- Loss of soil water





Forestry

Economic Impacts

- Damage** costs e.g. timber, crops, pasture / livestock
- Loss of environmental / ecosystem services
- Control** costs (chemical, biological, etc)
- Monitoring** costs

Examples and Estimates

- Zambia: *Mimosa pigra*** estimated in excess of **US\$ 1,350 per hectare** to users of the floodplain – including farmers, livestock keepers, fishers, tourist operators and conservation agencies (GISP, 2007).
- South Africa:** Annual environmental costs of introduced pests in **South Africa** to be **US\$ 3.0 billion** (Pimentel, D. et al. 2001).
- Acacia mearnsii*** in RSA reduce surface runoff and decrease water ability, causing an estimated annual economic loss of **US \$2.8 million**. (De Wit, Crookes and Van Wilgen, 2001; Goodman, 2003)





FOREST INVASIVE SPECIES NETWORK FOR AFRICA - FISNA

- **Formation:** Dec. 2004, Zomba Malawi
- **Objectives:** Networking and information sharing

Major Activities and Achievements

- i) Website, hosted by FAO. (Pest alerts on Alerts, expertise, etc)
- ii) Listserver (fisna@kendy.up.ac.za)
- iii) Advisory
- iv) Collaborative projects
- v) Meetings and Workshops



Future Outlook

Increased membership
Recognition from forest sector institutions / bodies
Logistical and financial support for action
Linkage with other relevant sectors – e.g. agriculture

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