



Woody invasive alien species in Eastern Africa

Assessing and mitigating their impacts on ecosystems and rural livelihoods

Invasive Alien Plant Species: how to manage them?

Principles of Invasive Alien Species management:

- Management should set **realistic goals** and focus on the most economic and effective management of invasive alien plants
- The management usually aims to reduce the **local abundance** (dominance) and/or the **spread** (i.e. reduce the area invaded, or slow down/stop further spread) of invasive alien plants; different practices may be needed for these two management goals
- A set of management practices are available to achieve these goals; they can be grouped into **physical, chemical, biological** and **cultural management practices**
- A **management strategy** should be developed for a defined area (e.g. a country, a county or a community); it usually consists of a combination of different management practices, depending on the local invasion level, the natural resources local rural people would like to benefit from, and the likelihood that invasion at a given locality will affect further spread

Physical

Involves manual control, either of aerial portions of the weed or removal of enough of the root and crown, to kill the plants. It can also be based on the use of heavy machinery, such as tractors or bulldozers, in conjunction with ploughs or similar equipment.

Uprooting



Slashing / Felling



Slash and mulch



Mechanical control



Usually used for:

Early detection and rapid response

Control

Chemical

Methods include foliar and basal bark spraying, stem injection and cut stump application.

Basal bark spraying



Cut stump application



Foliar application



Usually used for:

Early detection and rapid response

Control

Cultural

Options include: use of competitive cultivars, increased seeding rates, liming and fertilization, prescribed fire, grazing, revegetation or reseedling, early sowing / late sowing, narrow row spacing, cover crops, mulching, intercropping, residues retention, crop rotation.

Fencing



Usually used for:

Prevention

Early detection and rapid response

Biological

Biological control involves the use of living organisms that attack the invasive alien species. Usually, specialist natural enemies from the native range are used to control invasive alien plants in the introduced range.

Evippe sp.



Algarobius prosopis



Usually used for:

Control