



Invasive Alien Species Management In Zimbabwe

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Agenda

Introduction

Policies and legislation

Distribution of invasive alien species

Management approaches

Challenges

Conclusion



Introduction



Introduction

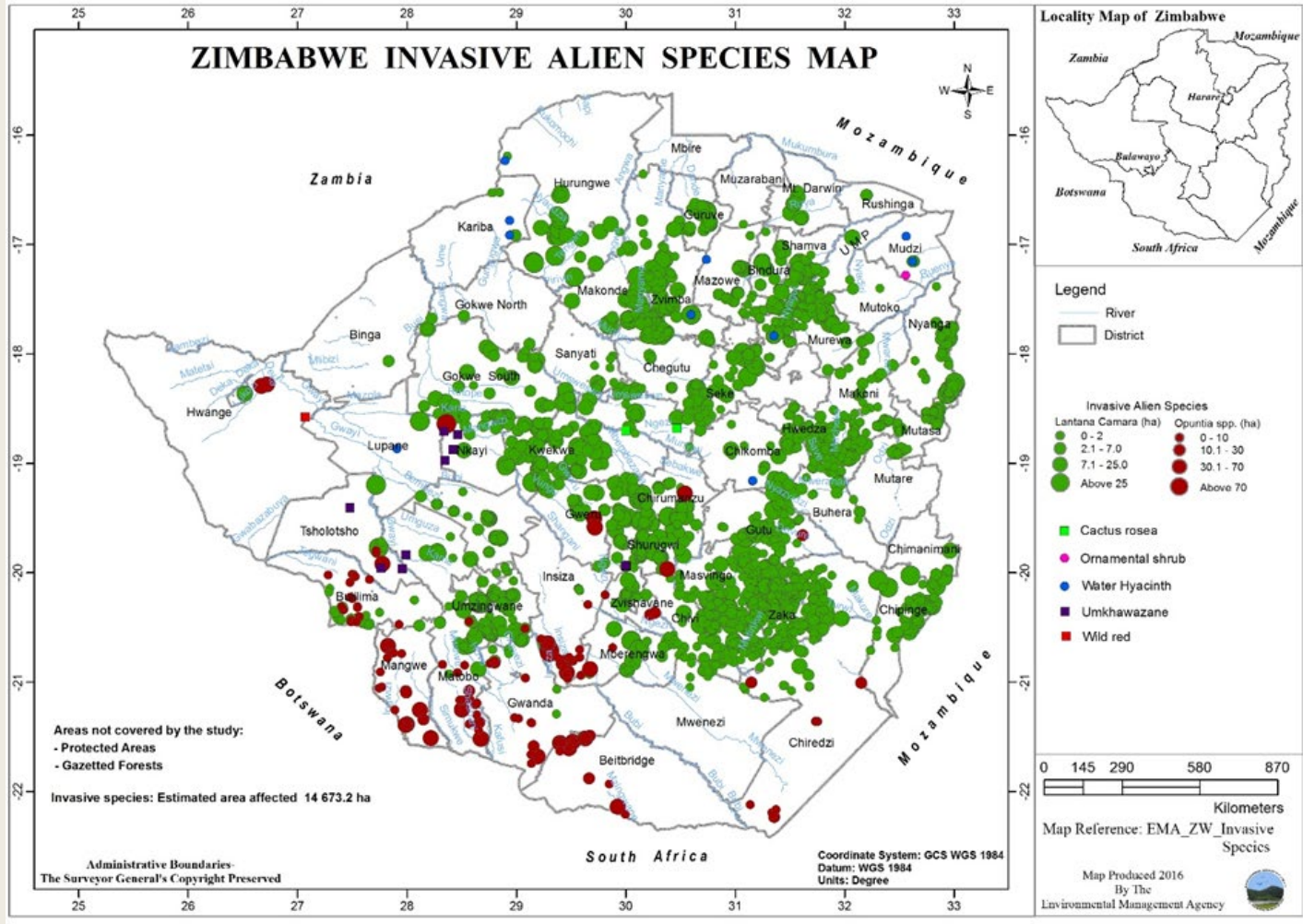
- The severe global threat posed by invasive alien species (IAS) is underappreciated, underestimated, and often unacknowledged.
- According to a major new report by the Intergovernmental Platform on Biodiversity and Ecosystem Services, more than 37,000 alien species have been introduced by many human activities to regions and biomes around the world (IPBES,2023)
- In 2019, the IPBES Global Assessment Report found that invasive alien species are one of the five most important direct drivers of biodiversity loss – alongside changes in landuse, direct exploitation of species, climate change and pollution
- Zimbabwe is also home to several aquatic and terrestrial invasive alien species. Climate change and increased mobility has compounded the problem by allowing an increase in the number of invasive alien species.



Policies And Legislation

- The Environmental Management Act 20;27 lists all the invasive alien species that are declared.
- EMA has mandate to investigate any emerging IAS and facilitate the process for them to be declared.

Distribution Of Invasive Alien Species

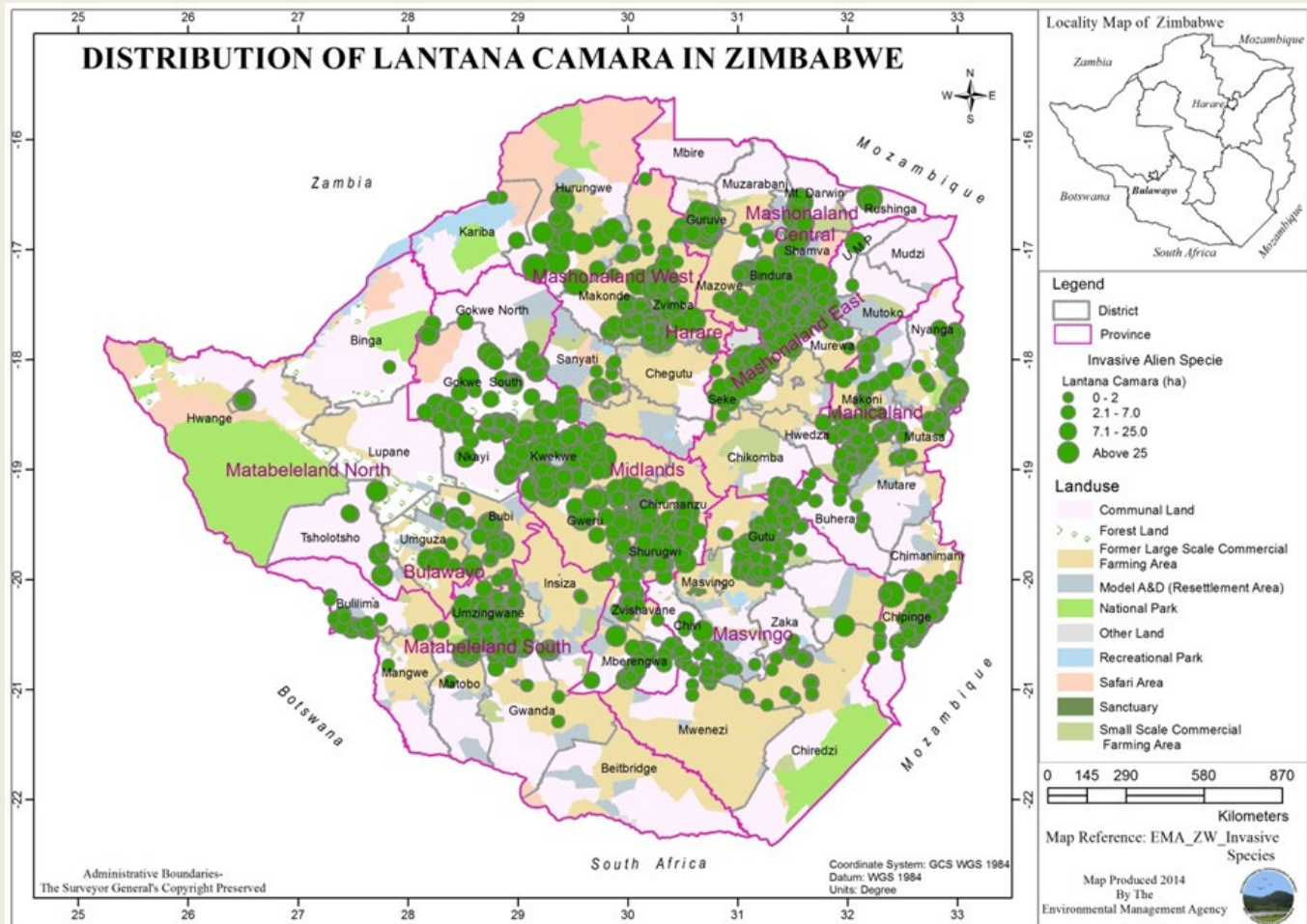
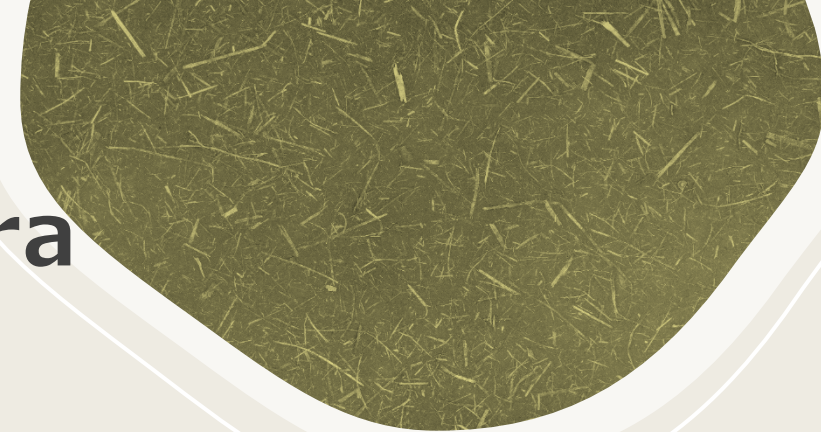


Lantana Camara



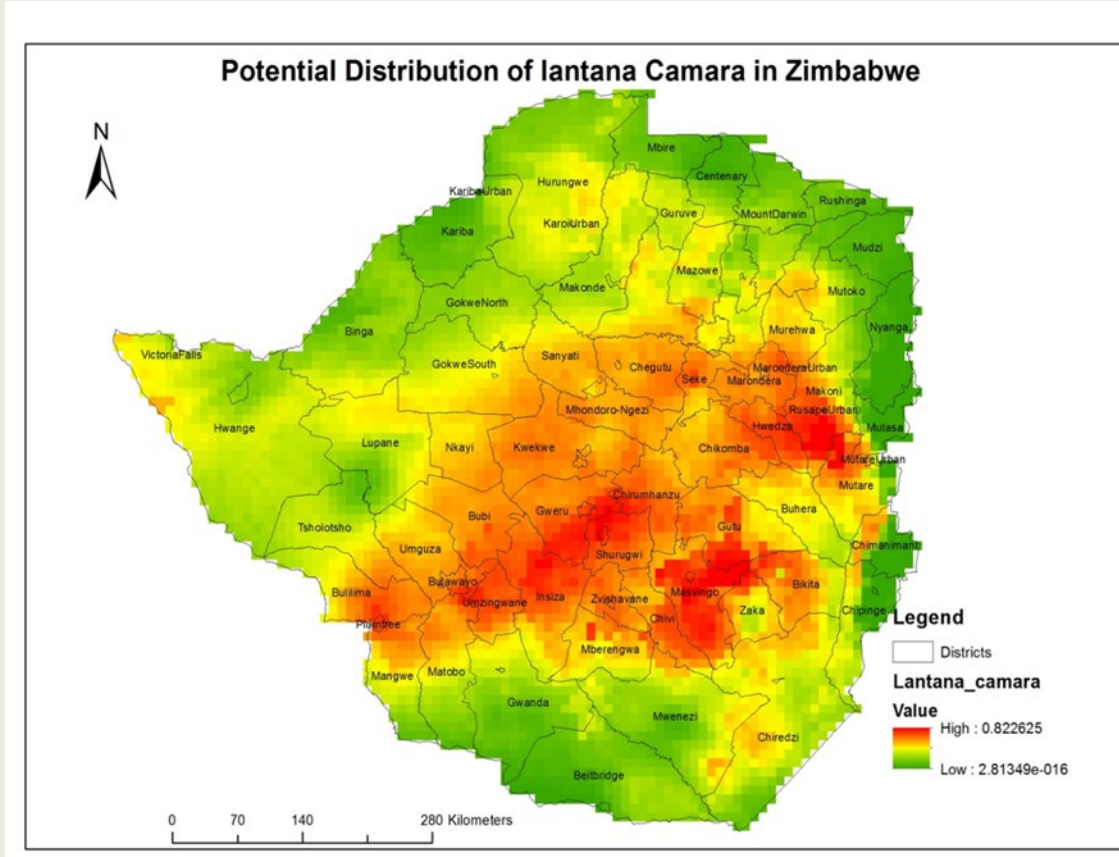
- Lantana camara is an invasive exotic aromatic shrub, that has stems with numerous recapped prickles. It has flowers in heads which are 2-3cm in diameter. The plant has varied colours which are fleshy purple or black (Flora of Zimbabwe 2007). Lantana was introduced to the country from South America around the 1930s.
- It is mostly dispersed by birds, humans and livestock. The plant was widely used as perimeter hedge around homes and gardens.
- Encourage questions and provide thoughtful responses to enhance audience participation
- Use live polls or surveys to gather audience opinions, promoting engagement and making sure the audience feel involved

Distribution Of Lantana Camara



- The shrub can grow to more than two metres tall and is commonly found in grazing areas, arable lands, along roads and at homesteads as fencing. The worst affected districts include Murewa, Zaka, Bikita, Bindura, Zvimba, Umzingwane, Shurugwi, Masvingo and Chipinge.
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Potential Distribution



Potential distribution of Lantana in Zimbabwe is highest in the highveld and declines towards the lower velds.

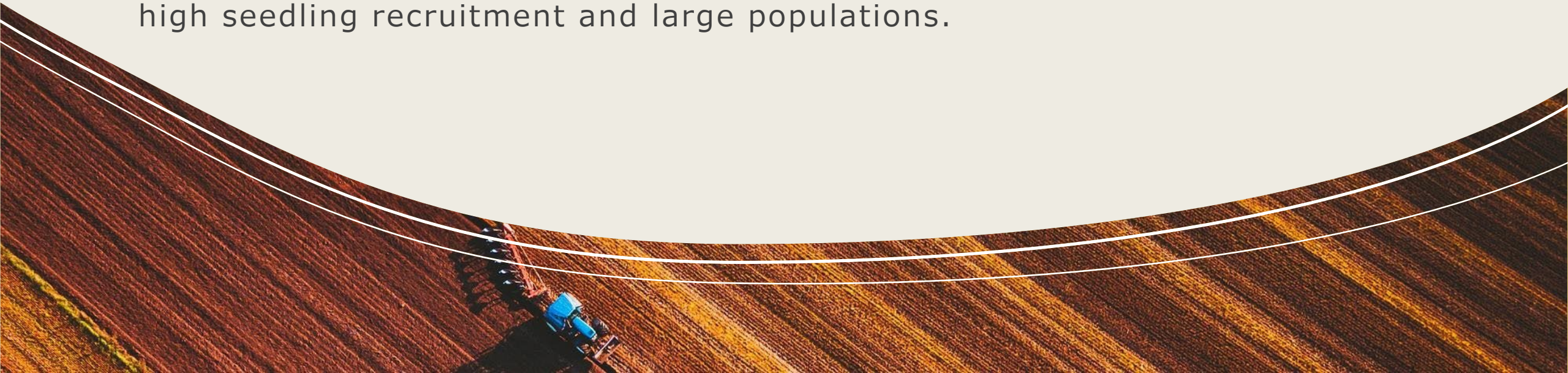


Management Options For Lantana Camara

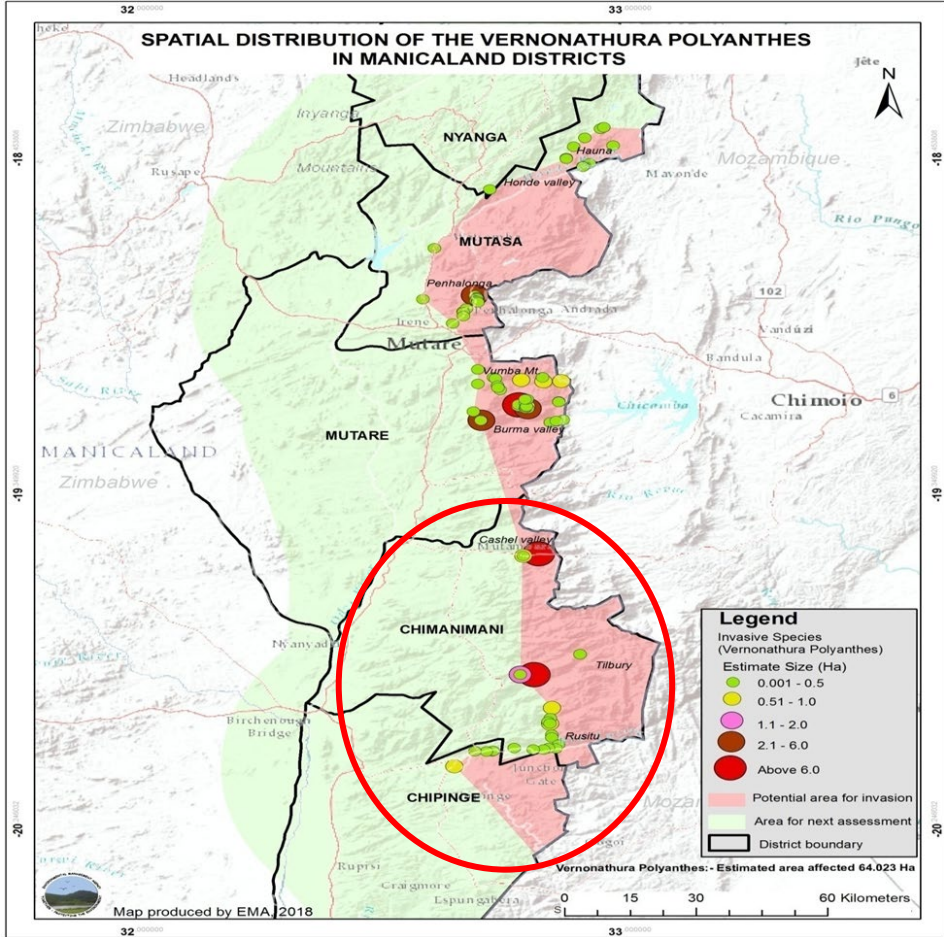
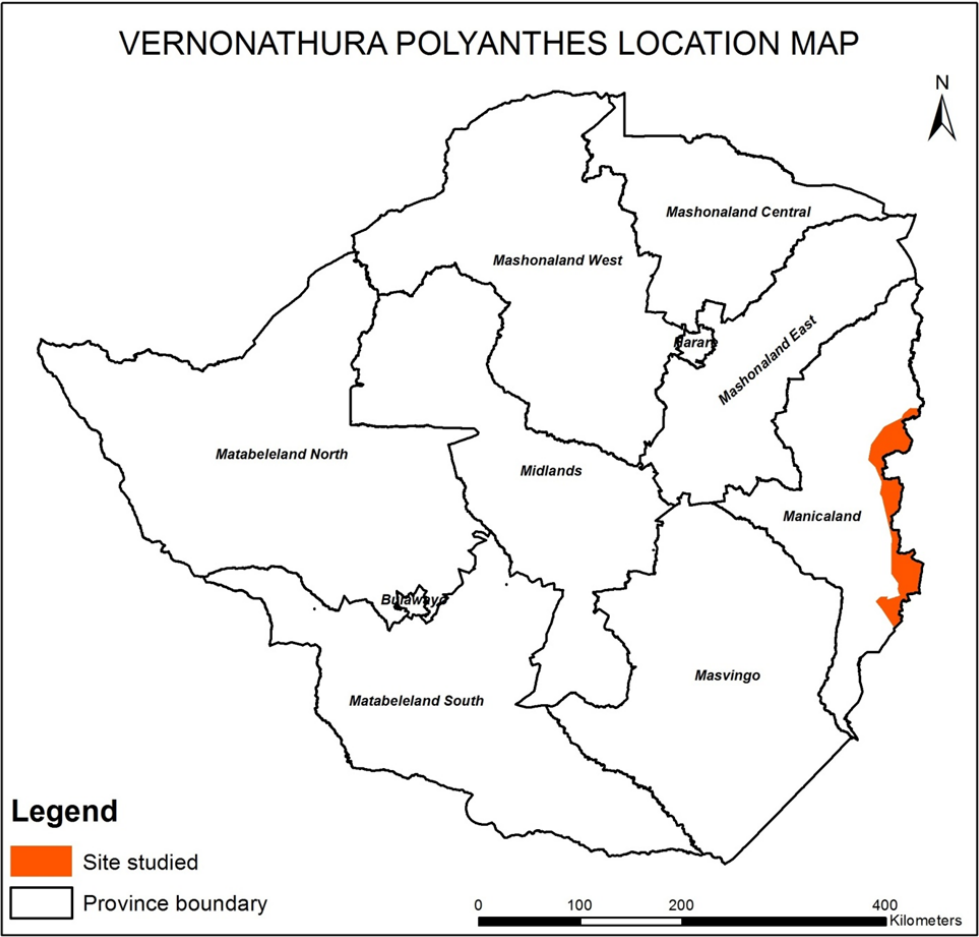
- Mechanical control Stick raking or ploughing can be effective in removing standing plants. However, regrowth from stumps also increase due to seedling germination in disturbed soil is common.
- Grubbing of small infestations—for example, along fence lines—can be a useful and effective method of removing plants, although this is time consuming.
- Repeated slashing can also reduce the vigour of lantana, exhausting its stored resources and reducing its likelihood of re-shooting.

Vernonanthura polyanthes

- Vernonanthura polyanthes, a shrub native to Brazil has invaded and is expanding its range in the Eastern Highland Mountains of Zimbabwe. This study assessed the abundance and impacts of V. polyanthes on the highlands.
- Lantana camara is most commonly associated with V. polyanthes. V. polyanthes is now well established in the eastern Highlands and has wide occurrence, high seedling recruitment and large populations.



Distribution Of Vernonanthura Polyanthes



Distribution of *Vernonanthura polyanthes*



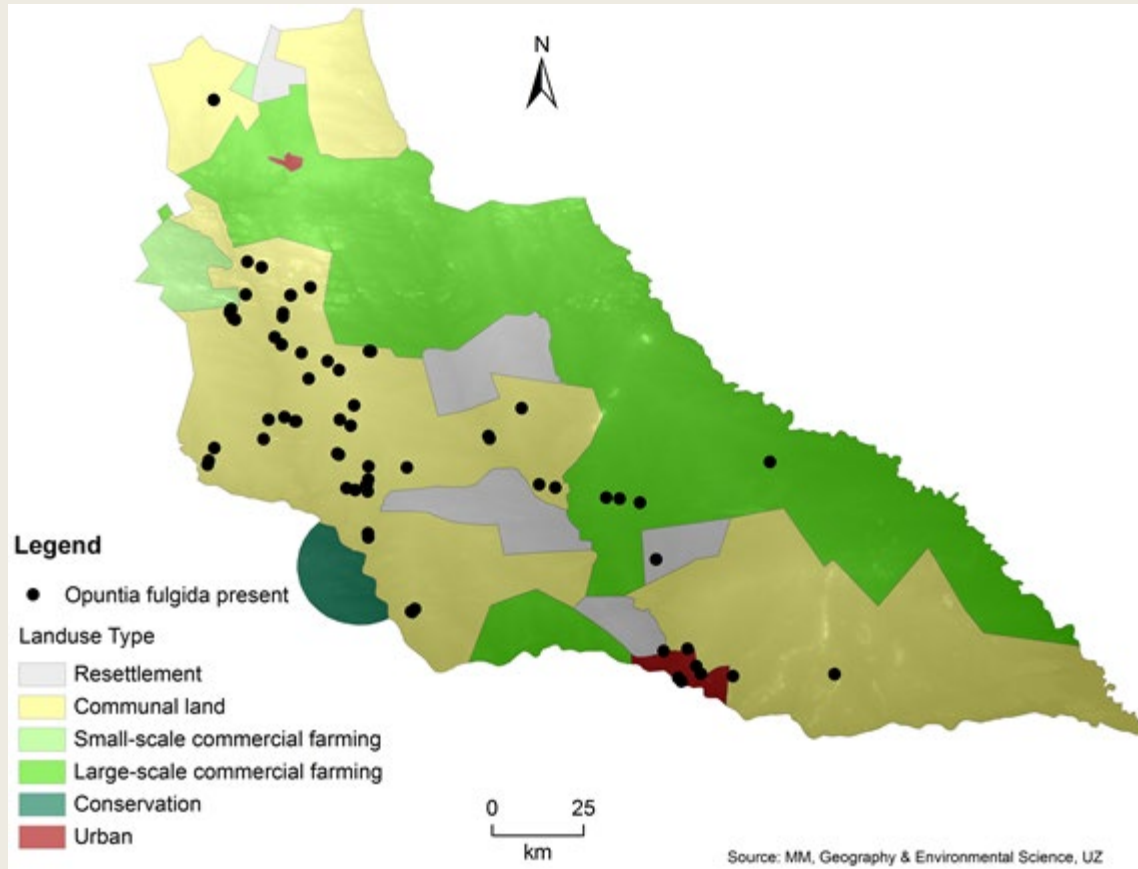
- *V. polyanthes* is mainly found on heavily disturbed habitats i.e. planted fields and forest margins.
- The planted fields include maize and banana fields and plantations with various exotic tree species mostly of the genus *Pinus*.
- There are a few records of *V. polyanthes* in woodlands and riverine environments.



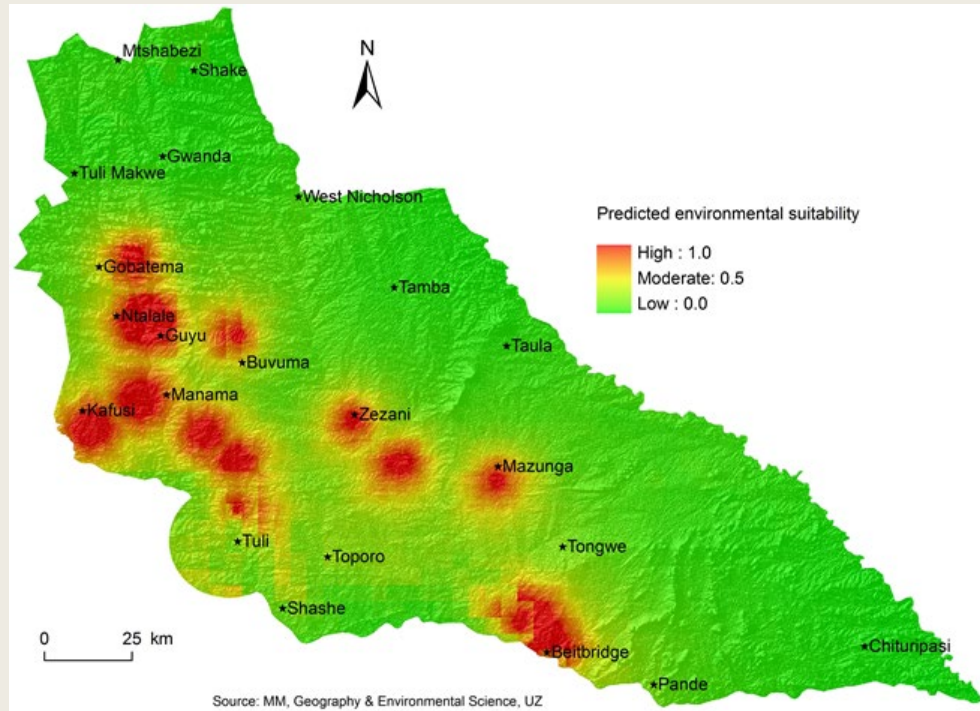
Cylindropuntia fulgida var. fulgida (Cff)

- *Cylindropuntia fulgida* var. *fulgida* (Cff) is native to South America where it is commonly known as the cholla fruit.
- The plant Cff has naturalized and become an invasive alien in a number of southern African countries, including Zimbabwe

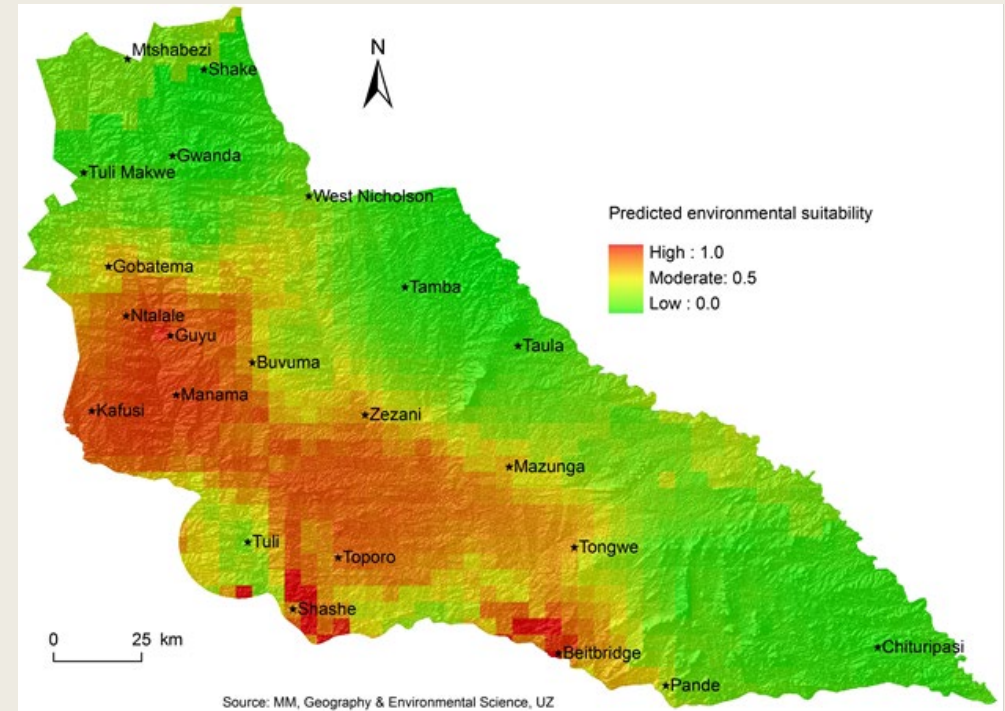
Cylindropuntia fulgida var. fulgida (Cff) distribution



Predicted distribution of the invasive cactus *Cylindropuntia fulgida* var. *fulgida* (Cff)



Predicted actual distribution of the invasive cactus *Opuntia fulgida* (Rosea cactus)



Predicted potential distribution of the invasive cactus *Opuntia fulgida* (Rosea cactus)

Cylindropuntia fulgida var. fulgida (Cff) management

- **Biological**
- In its native area, it is known to be affected by the insects that are commonly known as “cochineal”, “mealy bugs” or scale insects (*Dactylopius tomentosus*) (Mathenge et al, 2009; Klein and Zimmermann, 2009).



Cylindropuntia fulgida var. fulgida (Cff) management

- **Mechanical**
- Slashing, drying and burying



Cutting and burying method used to eradicate *Opuntia fulgida* in Gwanda district, Matabeleland South Province

Conclusion

- Besides all these efforts the country remains with the ever increasing burdern to deal with IAS.
- Climate change has increased the suitability of the various IAS.
- Limited funding to control the IAS.
- There is need for partnerships with specialist organisations.

The background features a light beige color with several large, irregular, rounded shapes. Each shape is outlined with two white lines. The shapes contain different textures: a solid reddish-brown, a brown with small dark specks, a dark brown with a fibrous texture, a greenish-brown with a fibrous texture, and a dark brown with a fibrous texture.

Thank You

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