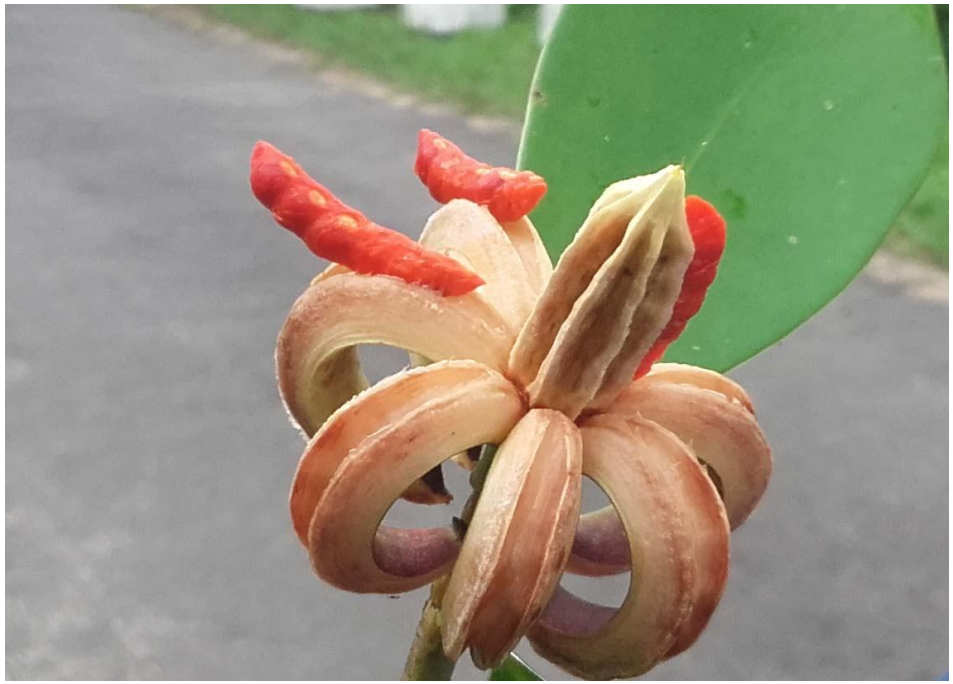
Habitat destruction by IAS Flora



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Invasive species can cause significant **changes** to ecosystems, **upset** the ecological balance, and **cause** economic harm to forestry, agricultural and recreational sectors.

Major Natural Forest types in Sri Lanka

Forest type	Total area ('000 ha)	Percentage of total land area
Upper Montane Forest	**3**	**0.05**
Lower Montane Forest	68	1.04
Lowland Rain Forest	141	2.14
Moist Monsoon Forest	243	3.69
Dry Evergreen Forest	1,090	16.49
Riverine Forest	22	0.34
Mangroves	8	0.13
Total	**1,579**	**23.88***

(*With sparse open canopy forests the total = 29.7%)

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Why it is necessary to control invasive plants in forests?

Biodiversity in forest ecosystems needs to be conserved.

Some of our unique forests types have a limited coverage.

Damage caused by IAS is as serious as habitat loss.

Therefore, it is needed to:

- **Prevent** the introduction of new invasive species;
- **Detect** new invasive species infestations early;
- **Eradicate** new infestations;
- **Control** and **manage** established invasive species; and
- **Restore** ecosystems degraded by invasive species.

Need to prioritize due to:

- Level of threat
- Sensitiveness of the ecosystem
- limited resources

A national priority list of IAS Flora

Prepared using Post-entry Risk Assessment Criteria

The criteria were based on

1. Distribution
2. Impact
3. Invasive attributes

Priority List

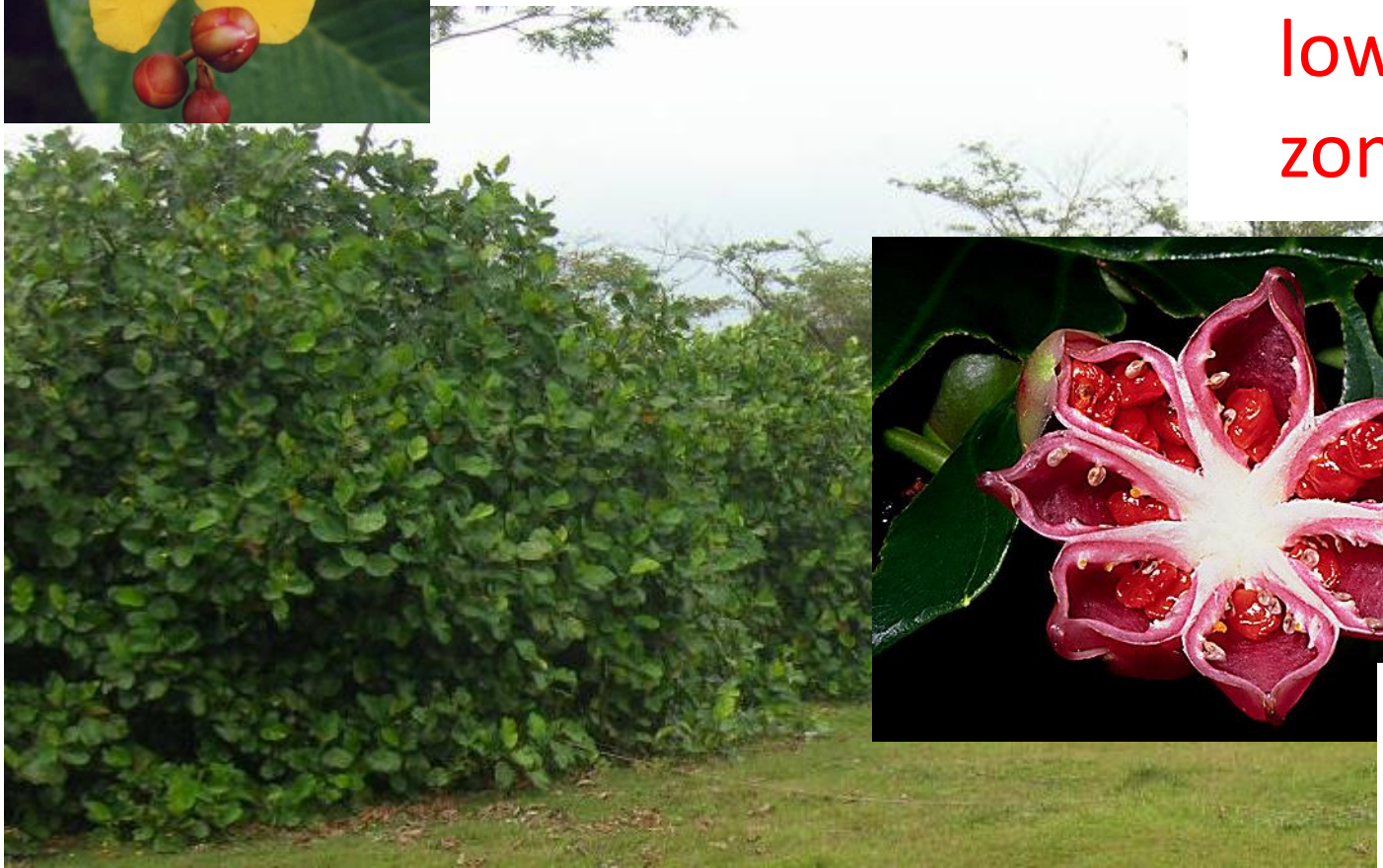
	Family	Species	Distribution	Affected habitats/ecosystems
1	Fabaceae	*Prosopis juliflora*	arid zone	Thorn scrublands, edges of dry mixed evergreen forest, sea shore
2	Salviniaceae	*Salvinia molesta*	island-wide	Reservoirs, ponds, marshes, streams, paddy fields
3	Pontederiaceae	*Eichhornia crassipes*	island-wide	Reservoirs, ponds, marshes, streams
4	Poaceae	*Panicum maximum*	island-wide	Wastelands, dry patana grassland, savannah, agricultural lands
5	Clusiaceae	*Clusia rosea*	sub-montane zone	Rocky outcrops/ sub-montane forest edges
6	Typhaceae	*Typha angustifolia*	Dry zone	Reservoirs, ponds, marshes, streams
7	Verbenaceae	*Lantana camara*	island-wide	Scrubland, degraded open scrub mainly in dry and intermediate zone
8	Annonaceae	*Annona glabra*	lowland wet zone	Marshes in wet zone, coastal lagoons
9	Asteraceae	*Austroeupatorium inulifolium*	montane zone	Montane grassland/forest ecotone
10	Dilleniaceae	*Dillenia suffructicosa*	low-country wet zone	Wet zone forest edges, open scrublands in wet zone near water

11	Convolvulaceae	*Cuscuta campestris*	island-wide except in upper montane zone	Wastelands, agricultural land in low country
12	Apocynaceae	*Alstonia macrophylla*	sub-montane zone	Degraded wet zone forests, lowland wet zone forest edge
13	Fabaceae	*Leucaena leucocephala*	dry and intermediate zones	Dry-mixed evergreen forests
14	Melastomataceae	*Clidemia hirta*	sub-montane wet zone	Open areas in wet zone, lowland rain forest edges
15	Asteraceae	*Parthenium hysterophorus*	dry and intermediate zones	Open wastelands, in the dry zone and intermediate zone
16	Fabaceae	*Mimosa pigra*	dry and intermediate zones	River banks, fallow fields, irrigation canals
17	Cactaceae	*Opuntia dillenii*	arid zone	Thorn scrublands in the dry zone, coastal areas
18	Fabaceae	*Ulex europaeus*	montane zone	Montane grasslands
19	Asteraceae	*Sphagneticola trilobata (Wedelia trilobata)*	wet and intermediate zones	Wastelands, roadsides, abandoned paddy fields in wet zone
20	Solanaceae	*Cestrum aurantiacum*	montane zone	Montane forest edges

Dillenia suffruticosa

Introduced in 1888

Causes considerable damages to lowland wet zone ecosystems

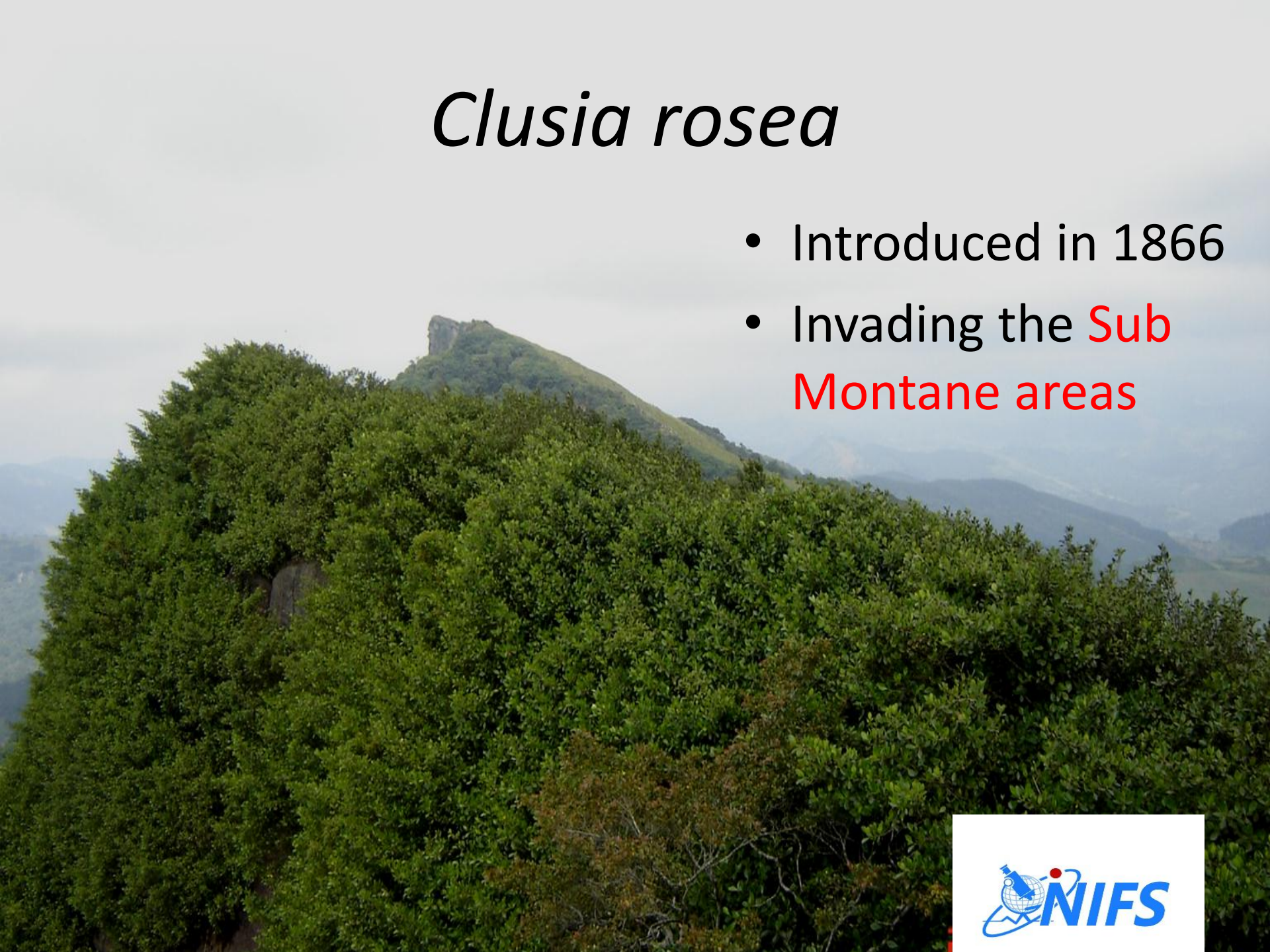


Miconia calvescens

- Introduced in 1888
- Invading the **Sub Montane areas**

Clusia rosea

- Introduced in 1866
- Invading the Sub Montane areas

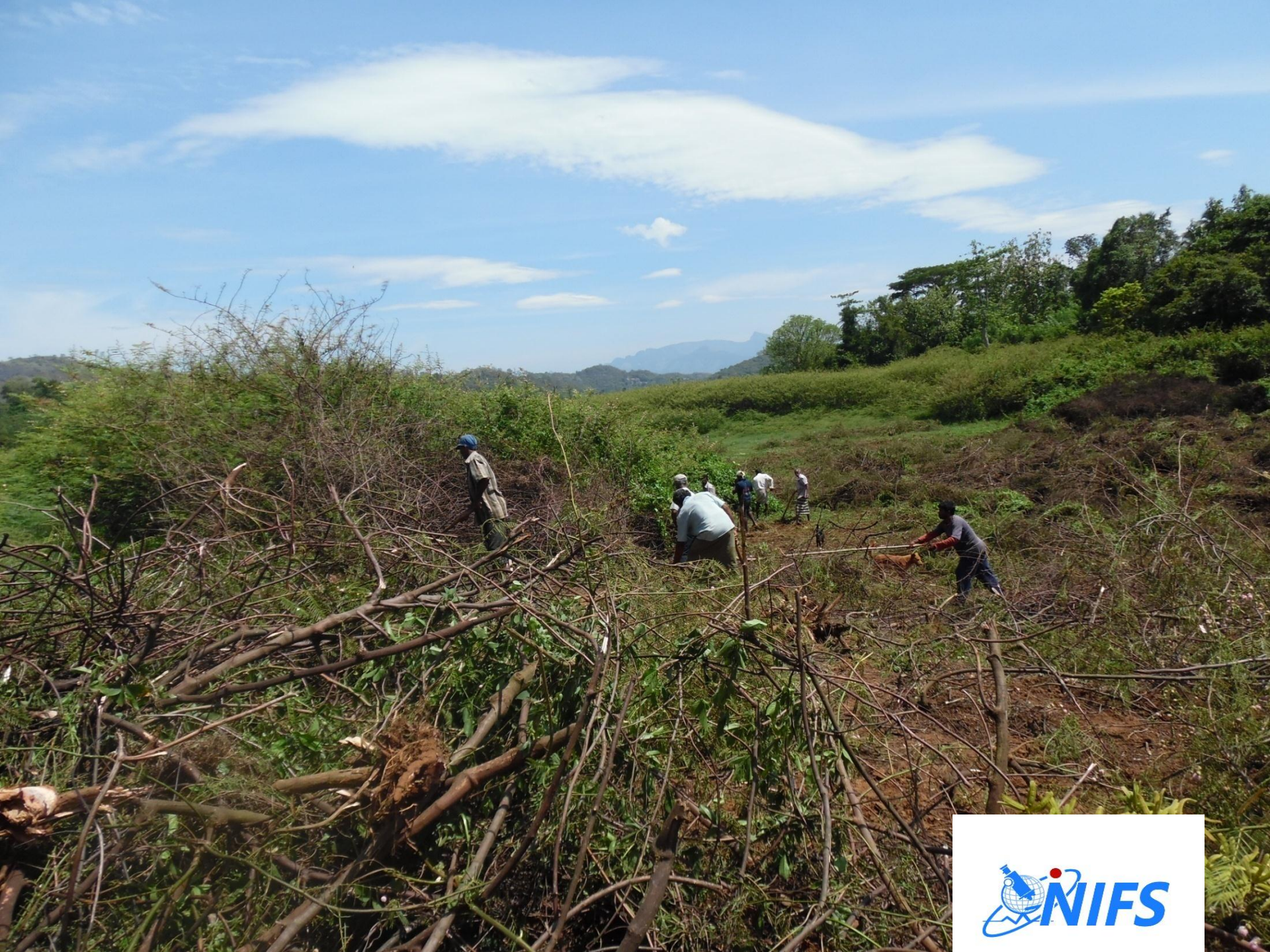


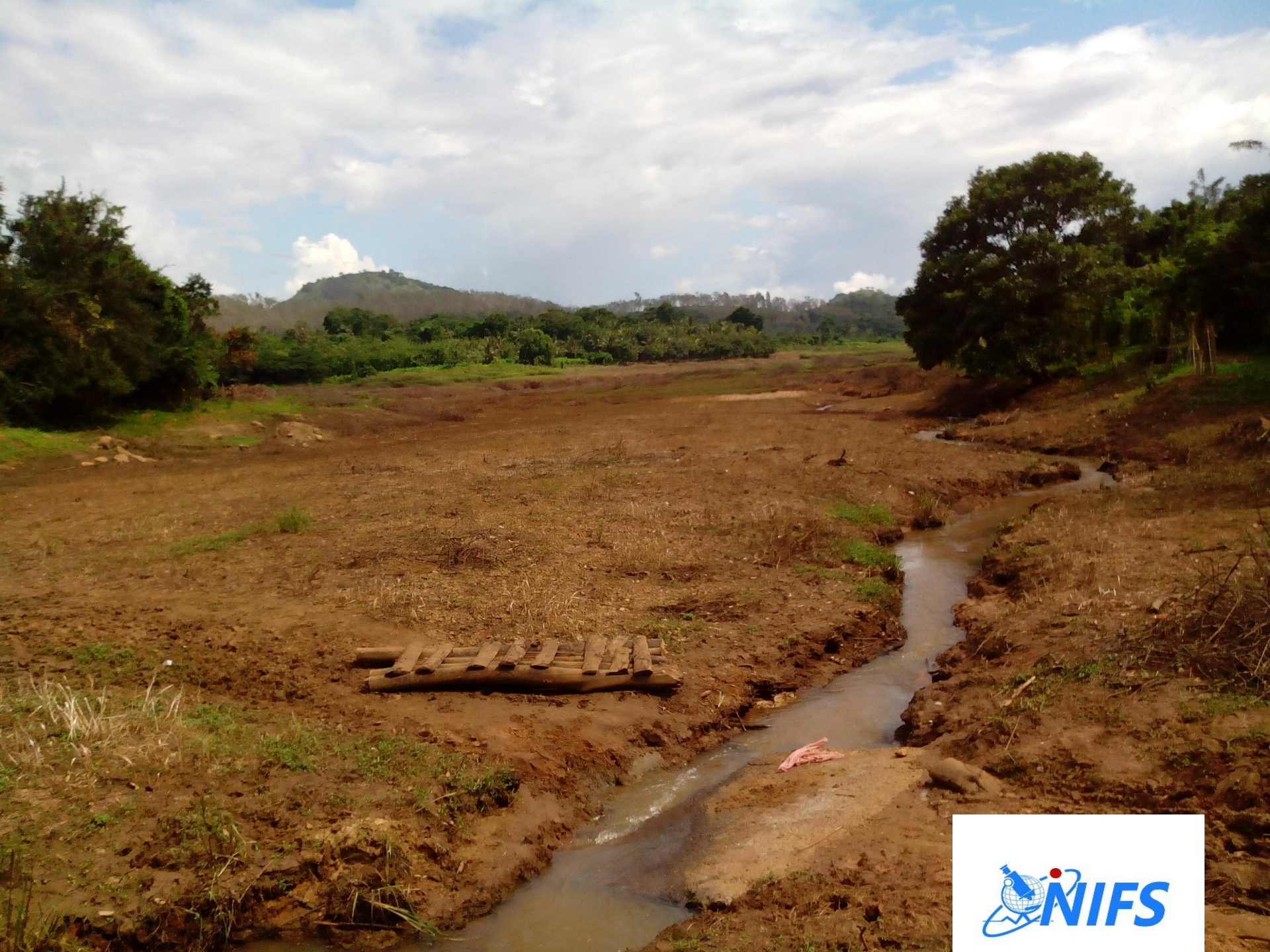
Cestrum aurantiacum

- Introduced in 1889
- Pollinated by the endemic bird, ‘Hill White Eye’
- Dispersed by another endemic bird ‘Yellow eared Bull Bull’
- Now invading the **Montane** Forests

Mimosa pigra

South and Central America. Disturb Riverine ecosystems

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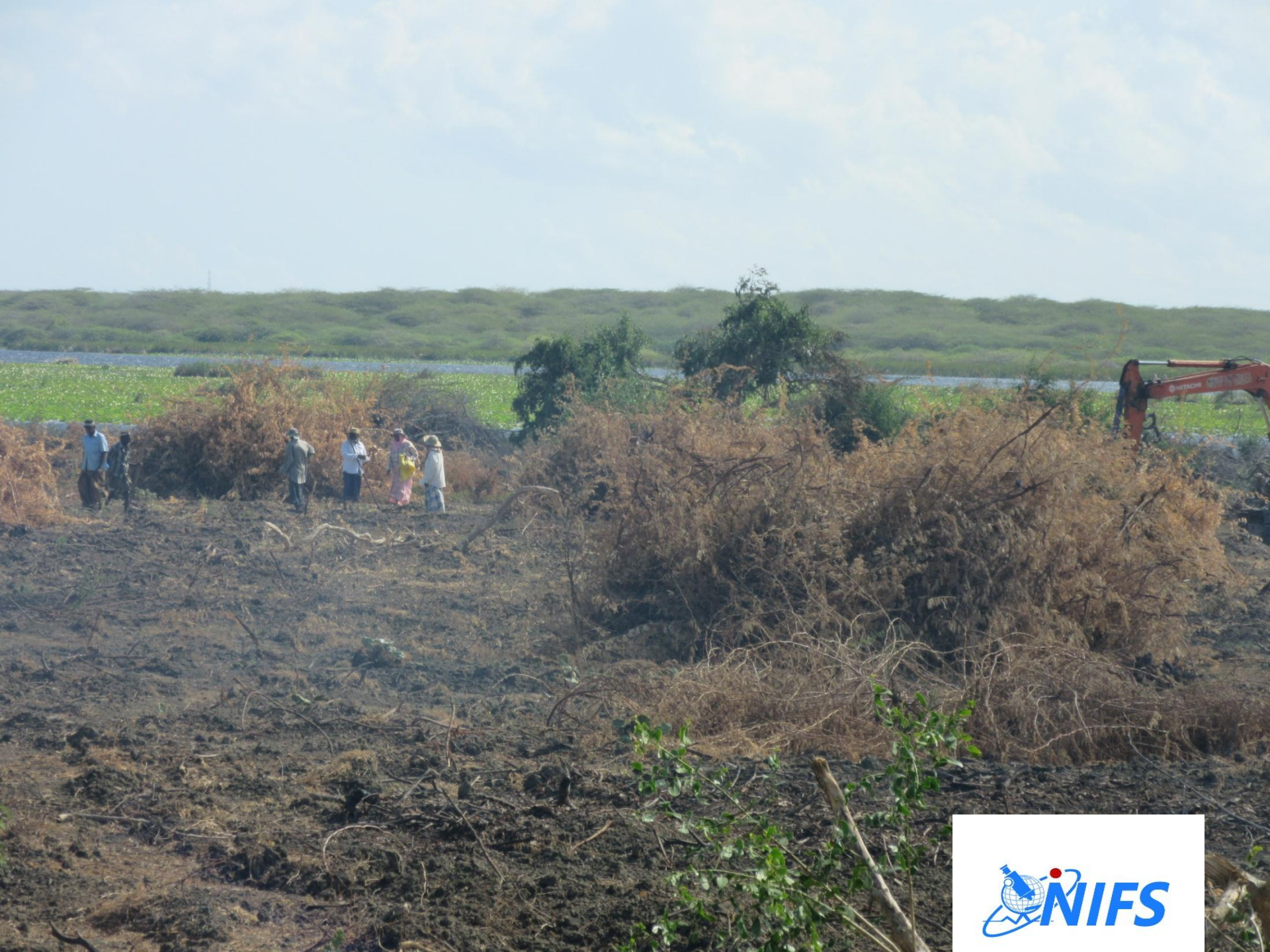
Opuntia dillenii

- Invading the Thorn Scrub and Dry Evergreen vegetation and
- Coastal vegetation

Prosopis juliflora

- Invading the Thorn Scrub and Dry Evergreen vegetation and
- Coastal vegetation
- Distributed by cattle and even elephants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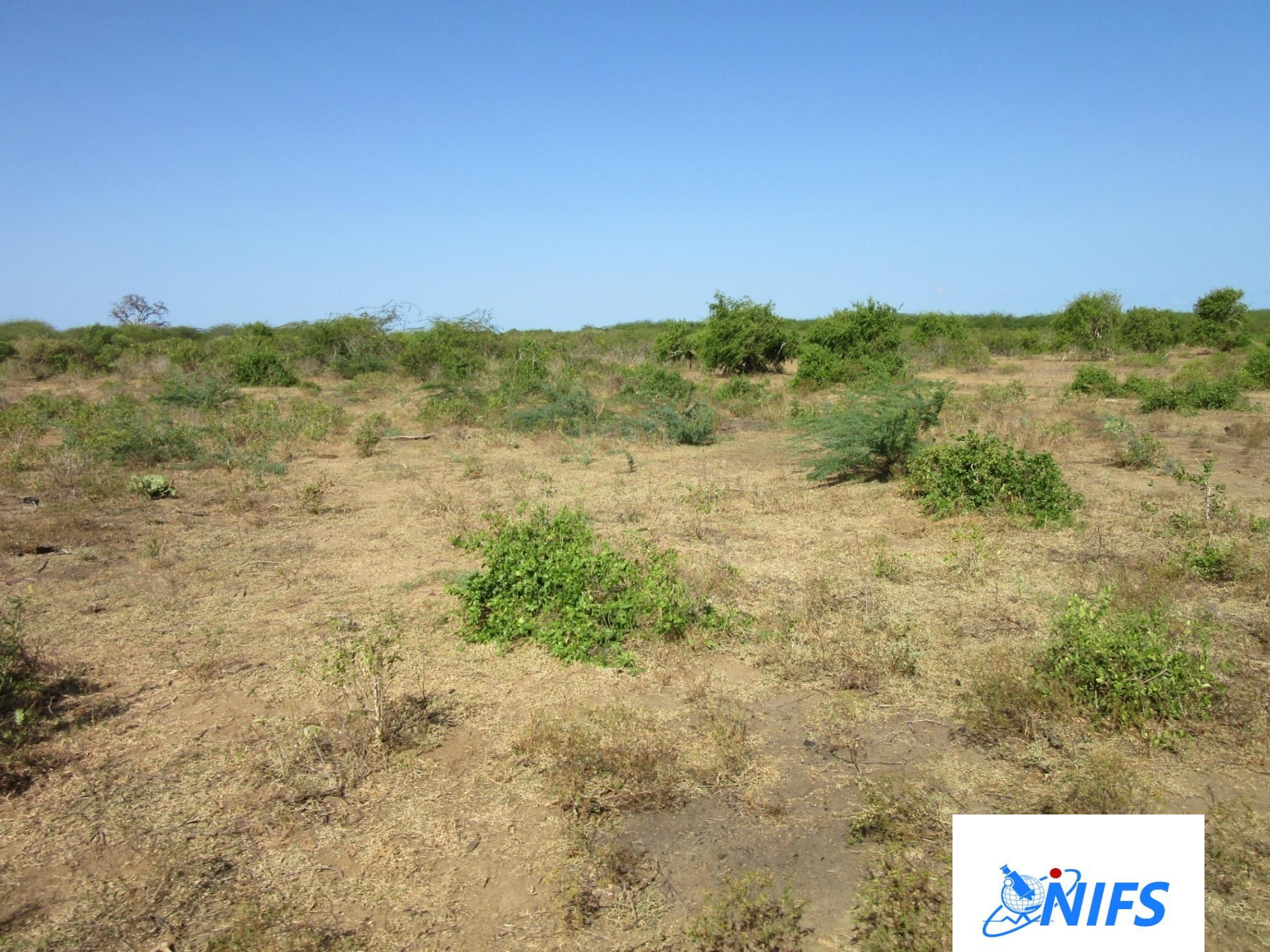
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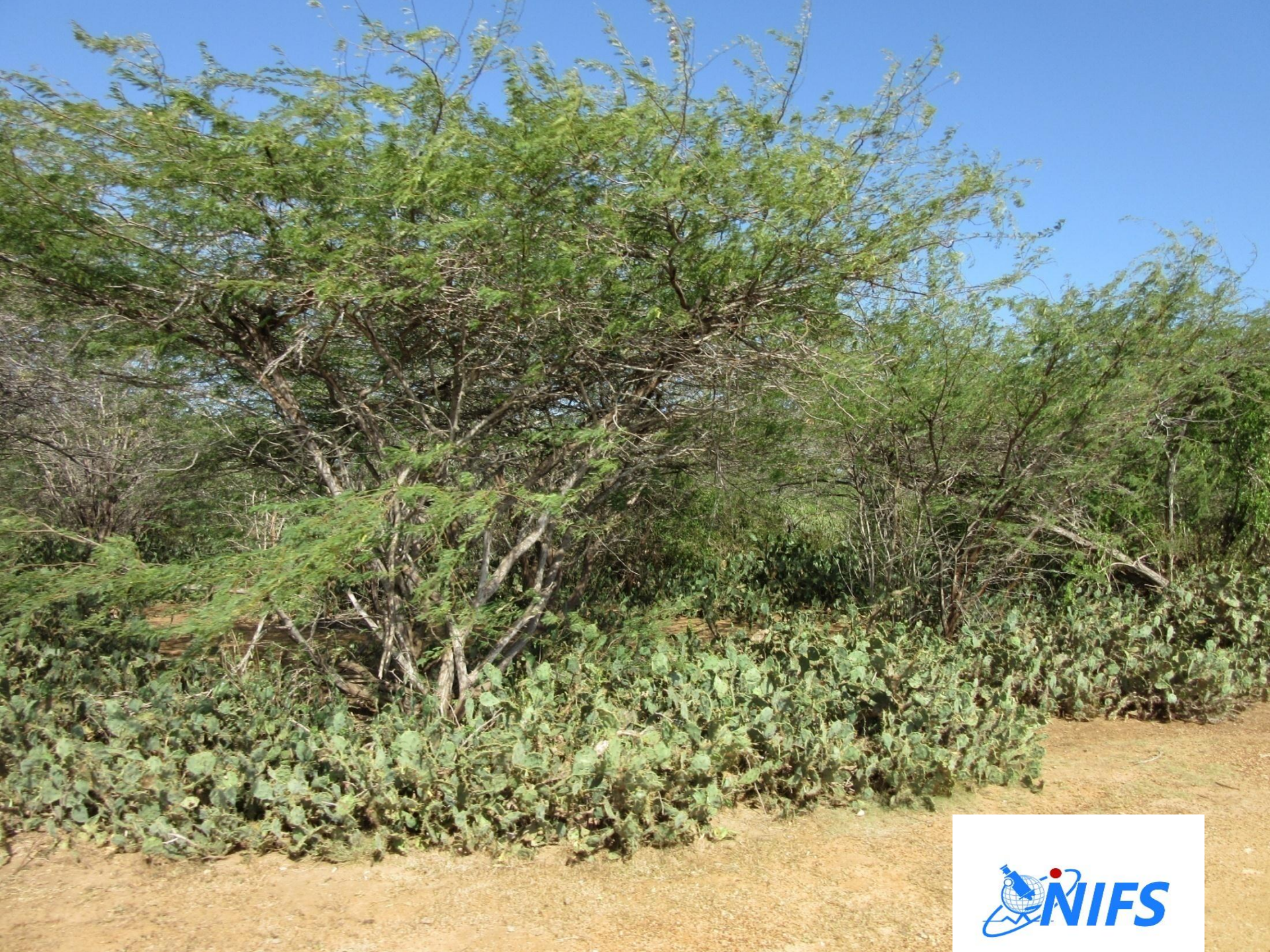
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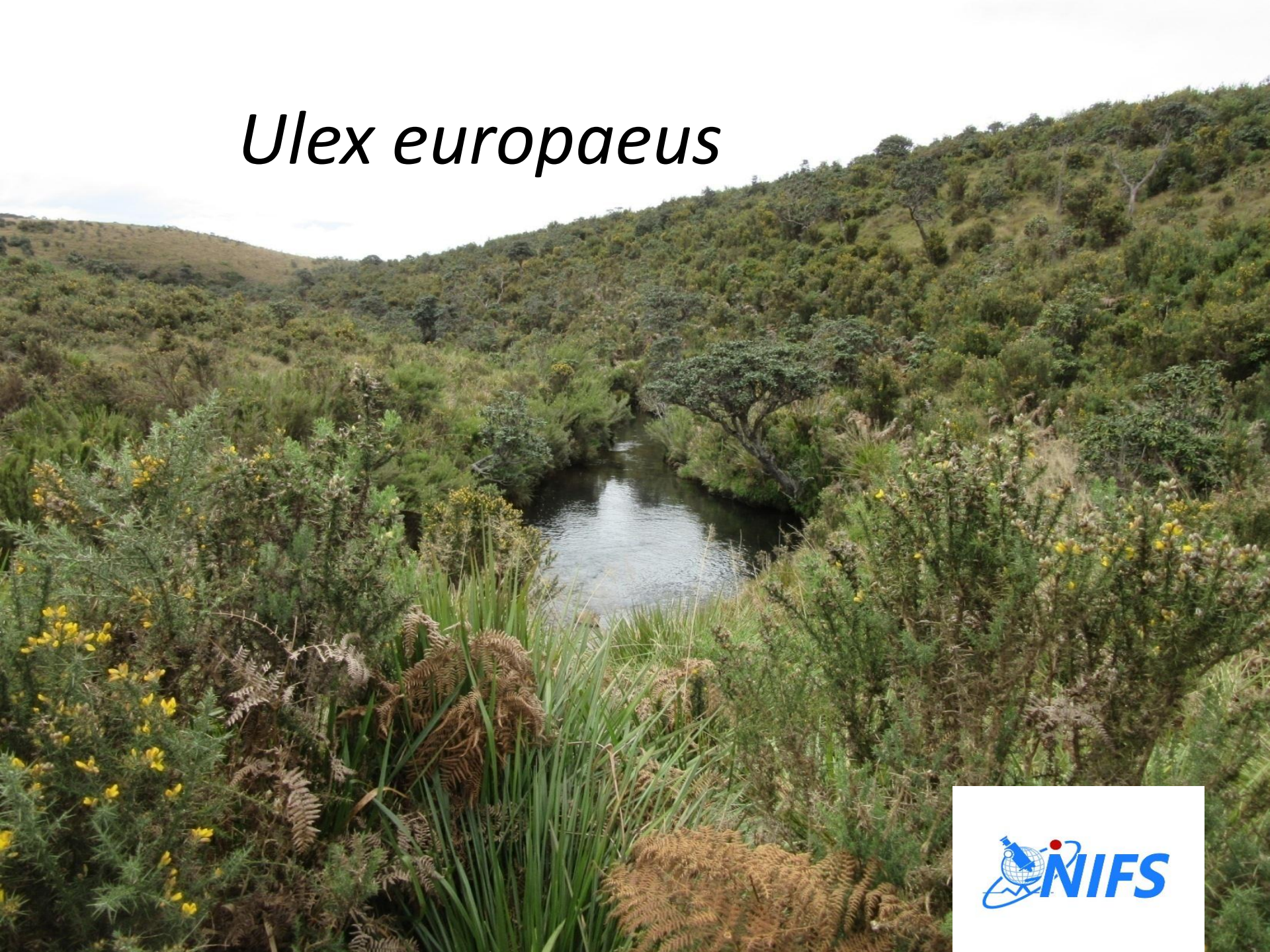
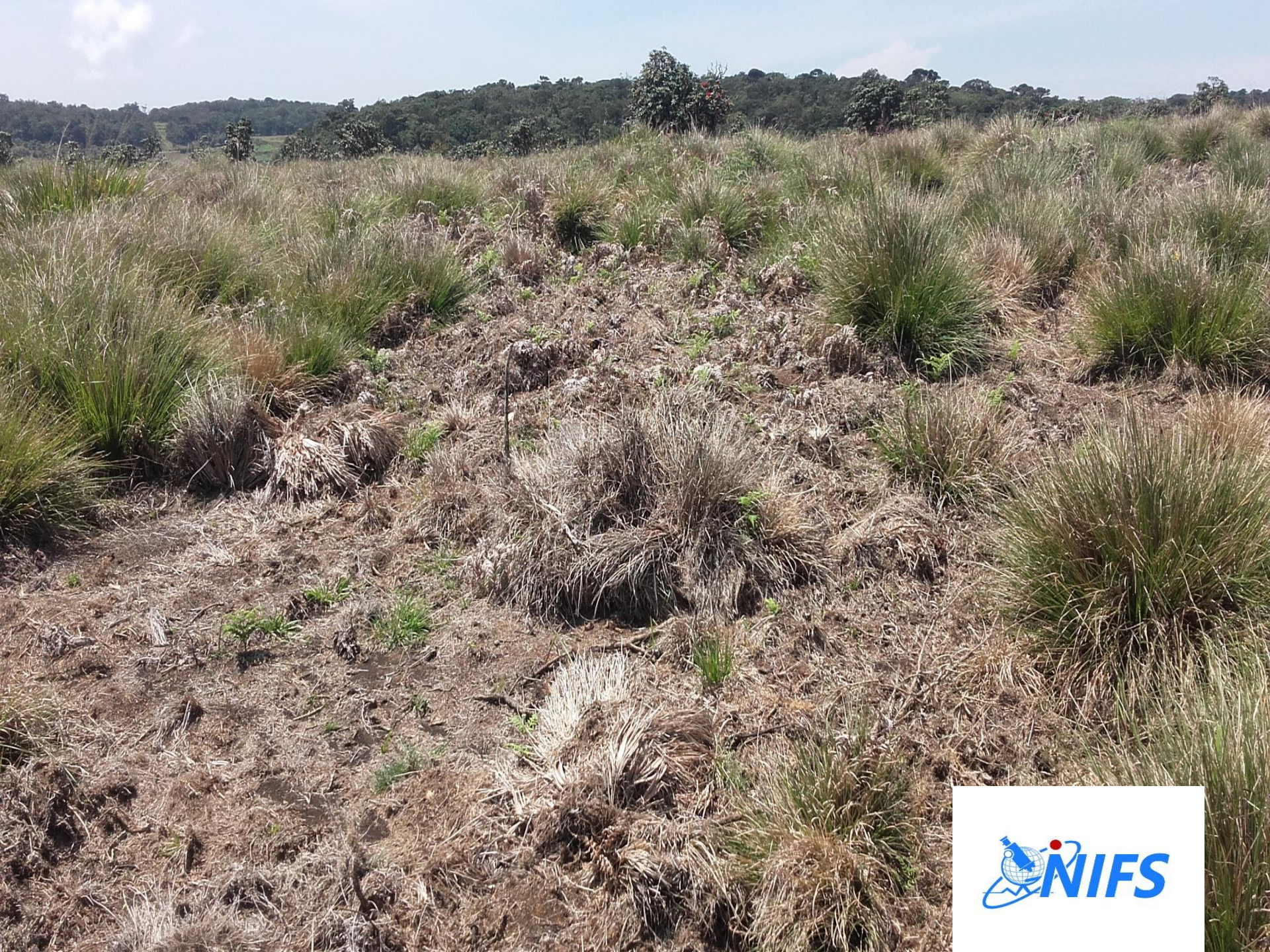
Acacia nilotica

- Invading the Thorn Scrub and Dry Evergreen vegetation and Coastal vegetation

- In 1895 it was reported to be rare!

Ulex europaeus

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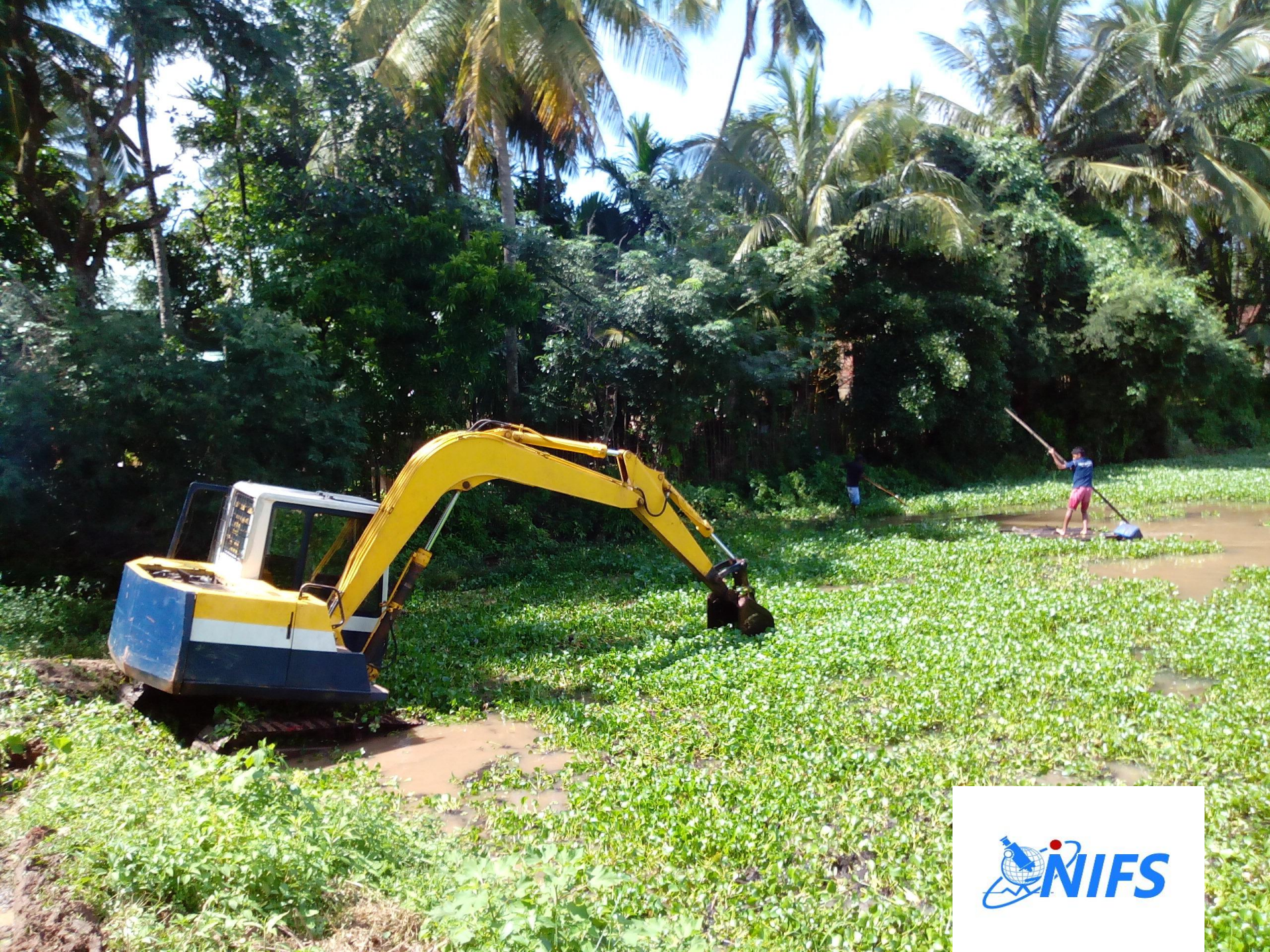
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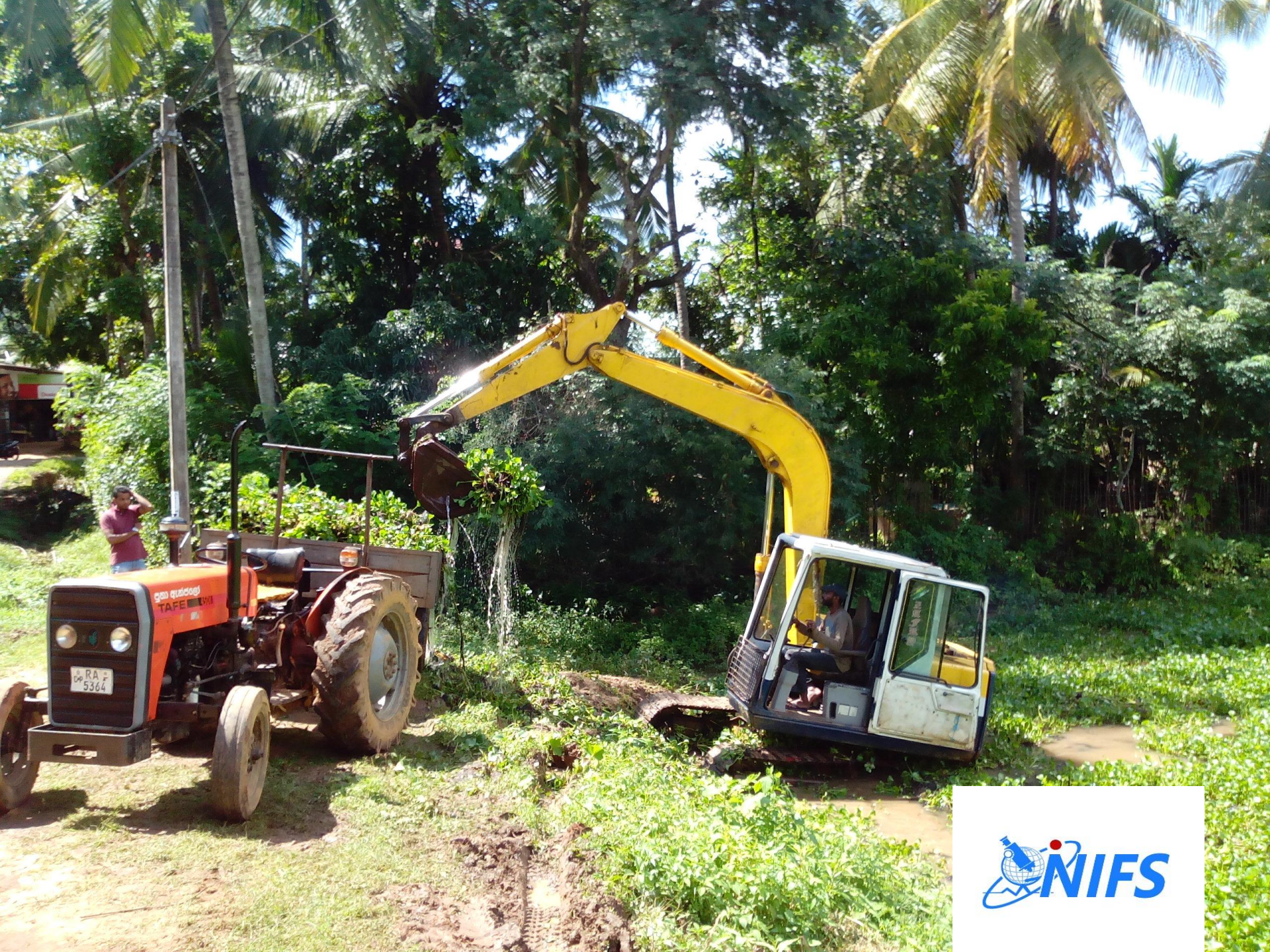
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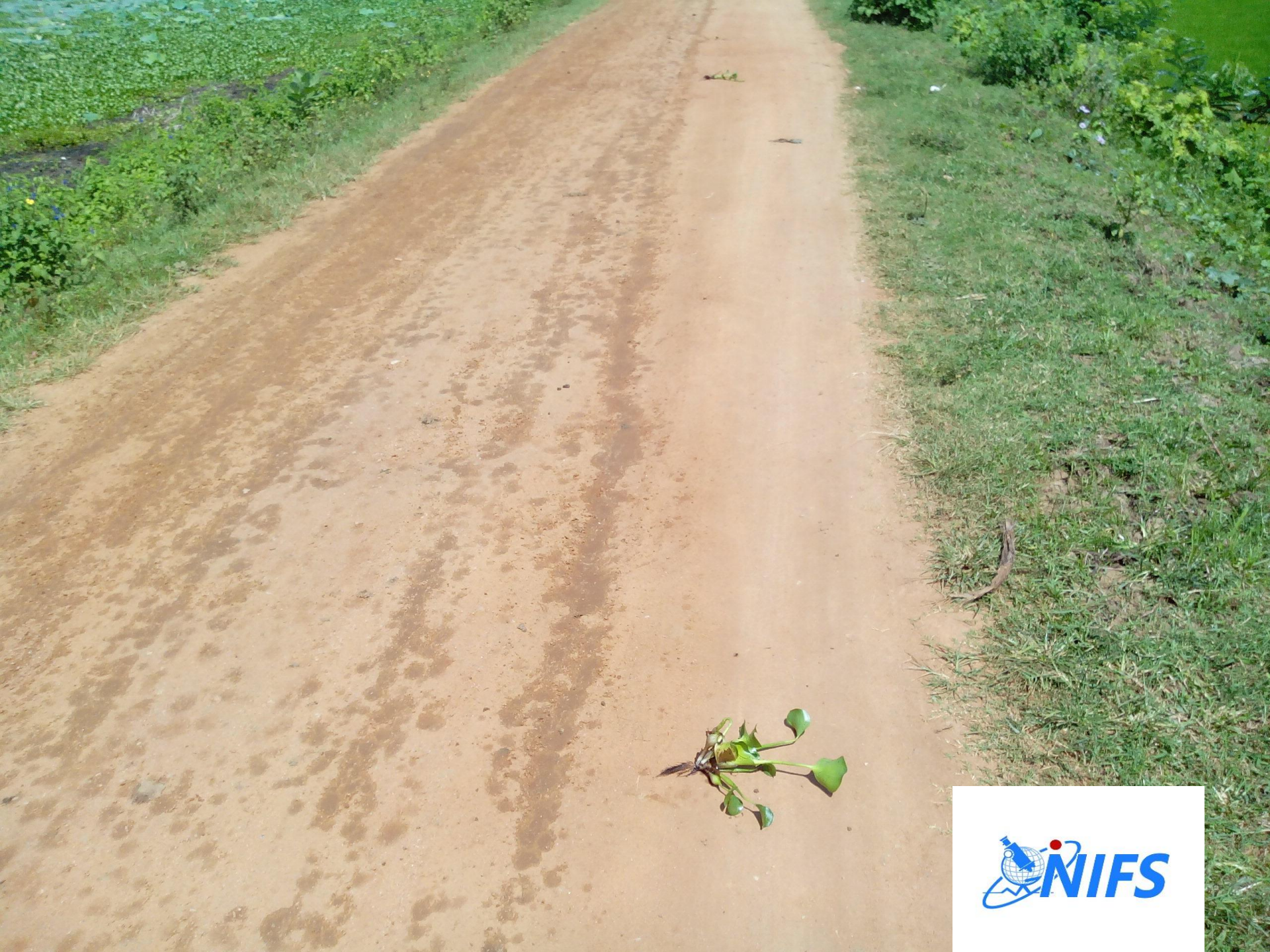
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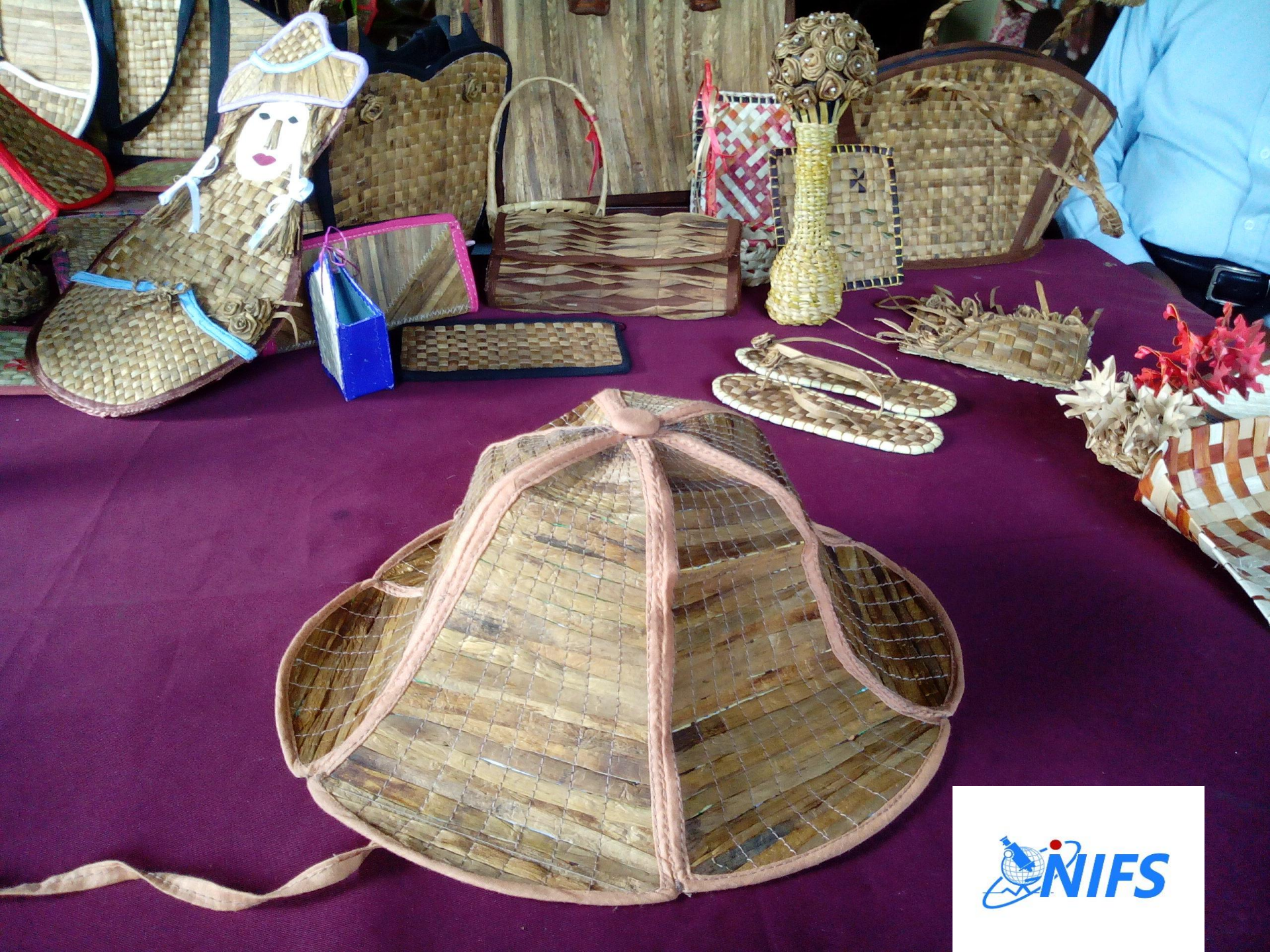

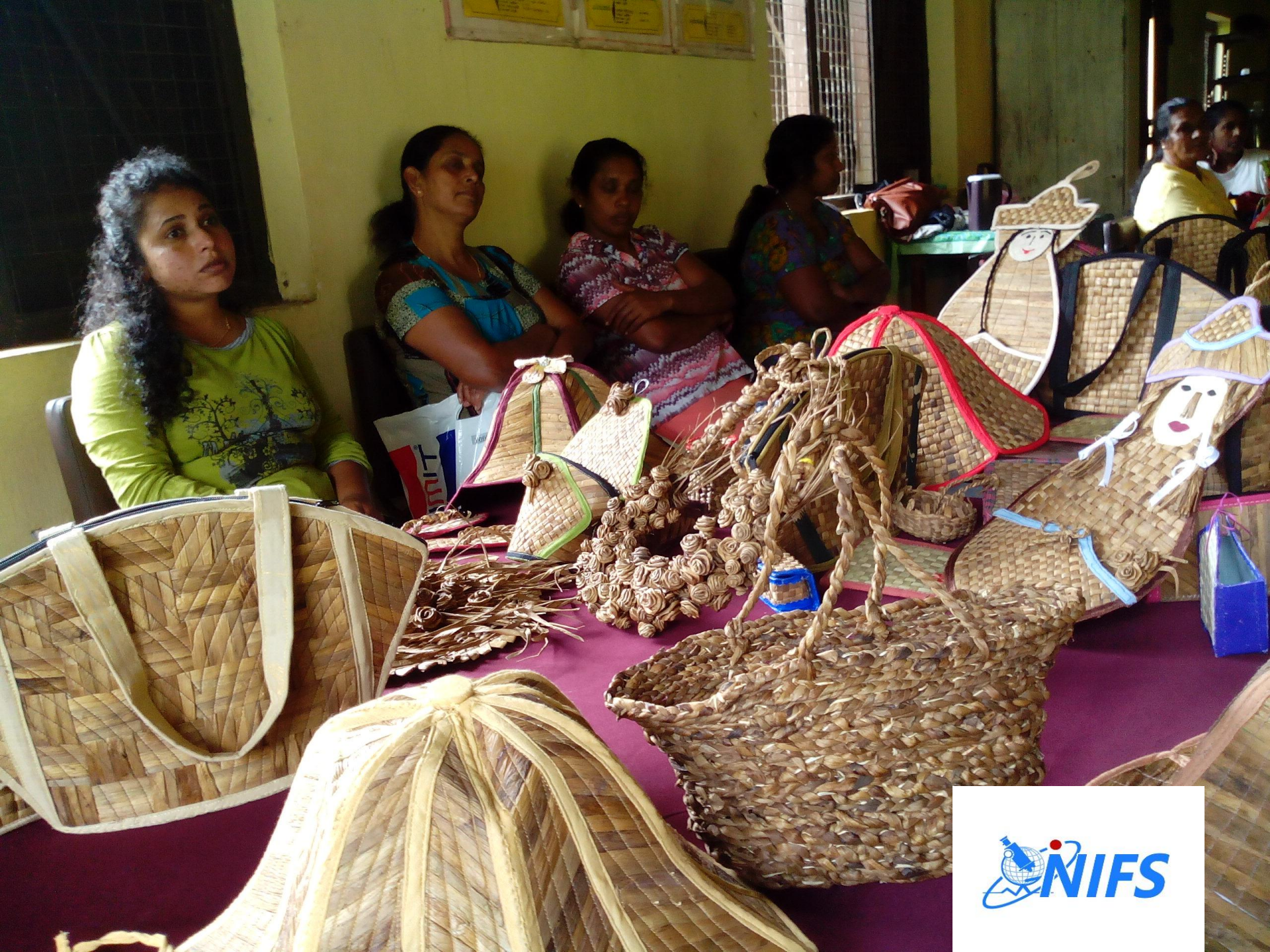
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Guidelines for early detection and rapid action

- Identify the possible IAS that can be invasive to Sri Lanka based on international experience, and make available the list to relevant stakeholders.
- Record all non-native plant and animal species in the locality, especially in vulnerable areas such as wetlands, grasslands, abandoned lands, agricultural lands, roadsides, newly deforested areas etc.

- Continuously monitor the national parks, forest reserves, estates, agricultural lands and other areas over the period for possible invasion.

- Share the information with relevant government and research organizations.

- Organize and help others to implement total eradication programmes before such an invasion progresses to the next level.

- Find uses of IAS and try to use ‘use’ as a control

- Monitor and maintain the area continuously to completely suppress the invasive species.

Thank you