Invasive Exotic Species Strategic Action Framework

May 7, 2014

2013 Task Force Direction

- July 9, 2013 Task Force Meeting
  - The Working Group recommended the development of a Comprehensive Invasive Species Strategic Action Framework (2013) that includes a cross cut budget (2010)
  - OERI to hold a high-level partnership workshop to discuss Strategic Action Framework
  - Provide coordination support for federal invasive species efforts (2010)

Goals for Today

- Update the Task Force on the Strategic Action Framework
- Provide a “sneak peek” at the Invasive Exotic Species web portal

Activity to Date

- Held 5 IES Strategic Framework meetings
- Briefed the WG/SCG (4/2/14 and 11/19/13)
- Briefed the Task Force (12/17/13)
- Continuing to broaden the partnership

Current Status

- Simultaneously developing:
  - Printable Framework
  - Web-based Framework
  - Suite of case studies
- Initiated process to update the Task Force's overarching ecosystem restoration Strategy to better address invasive exotic species

Draft Framework

Vision, Goals, and Case Studies

Why a Strategic Action Framework?

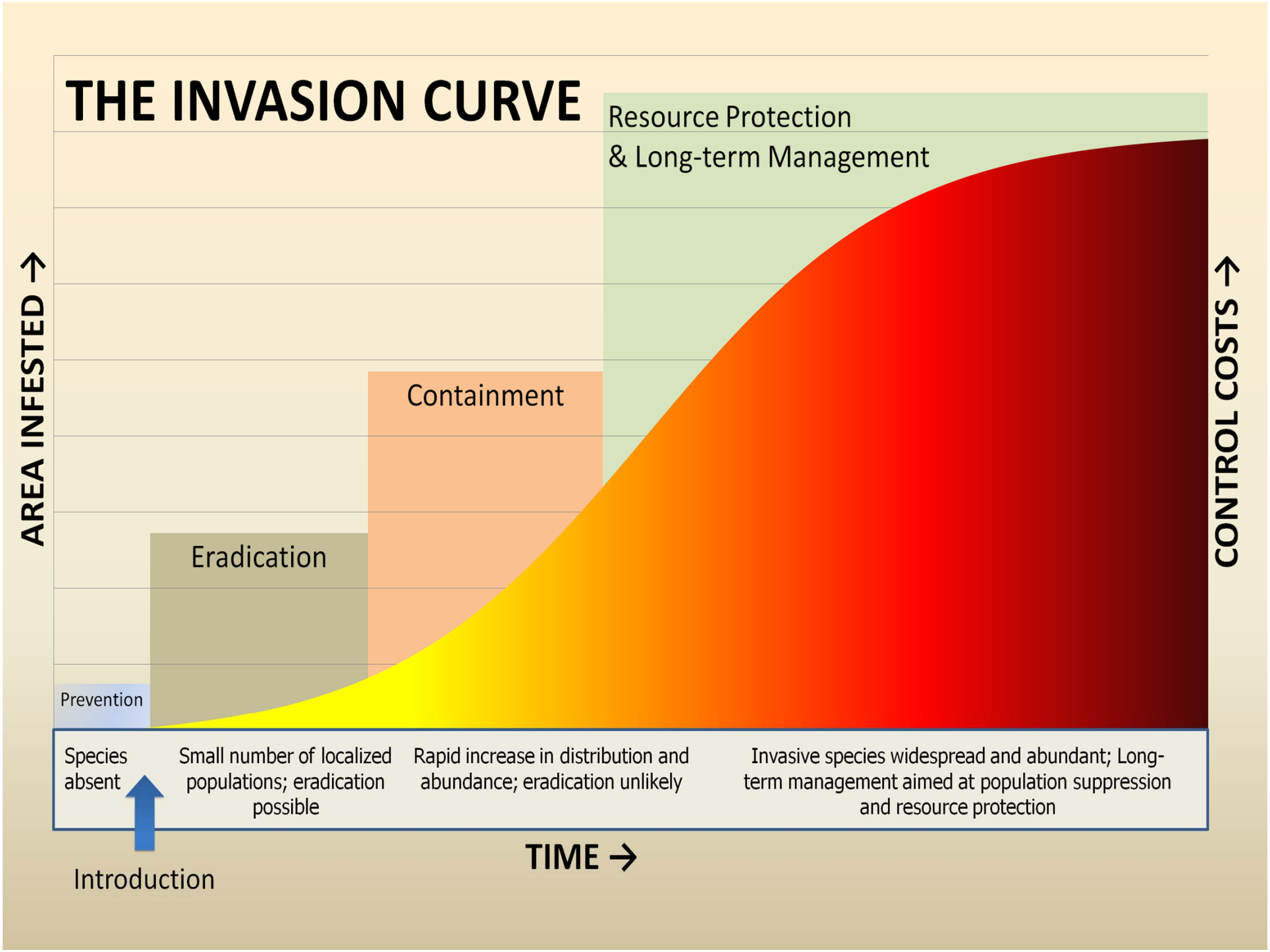
- Help decision-makers understand the connections between goals, strategies, and tactics;
- Maximize the extent to which the current capacity for partnership is leveraged to meet common goals;
- Help decision-makers make wise and timely investment decisions in the battle against invasive exotics; and
- Define success and provide for accountability.

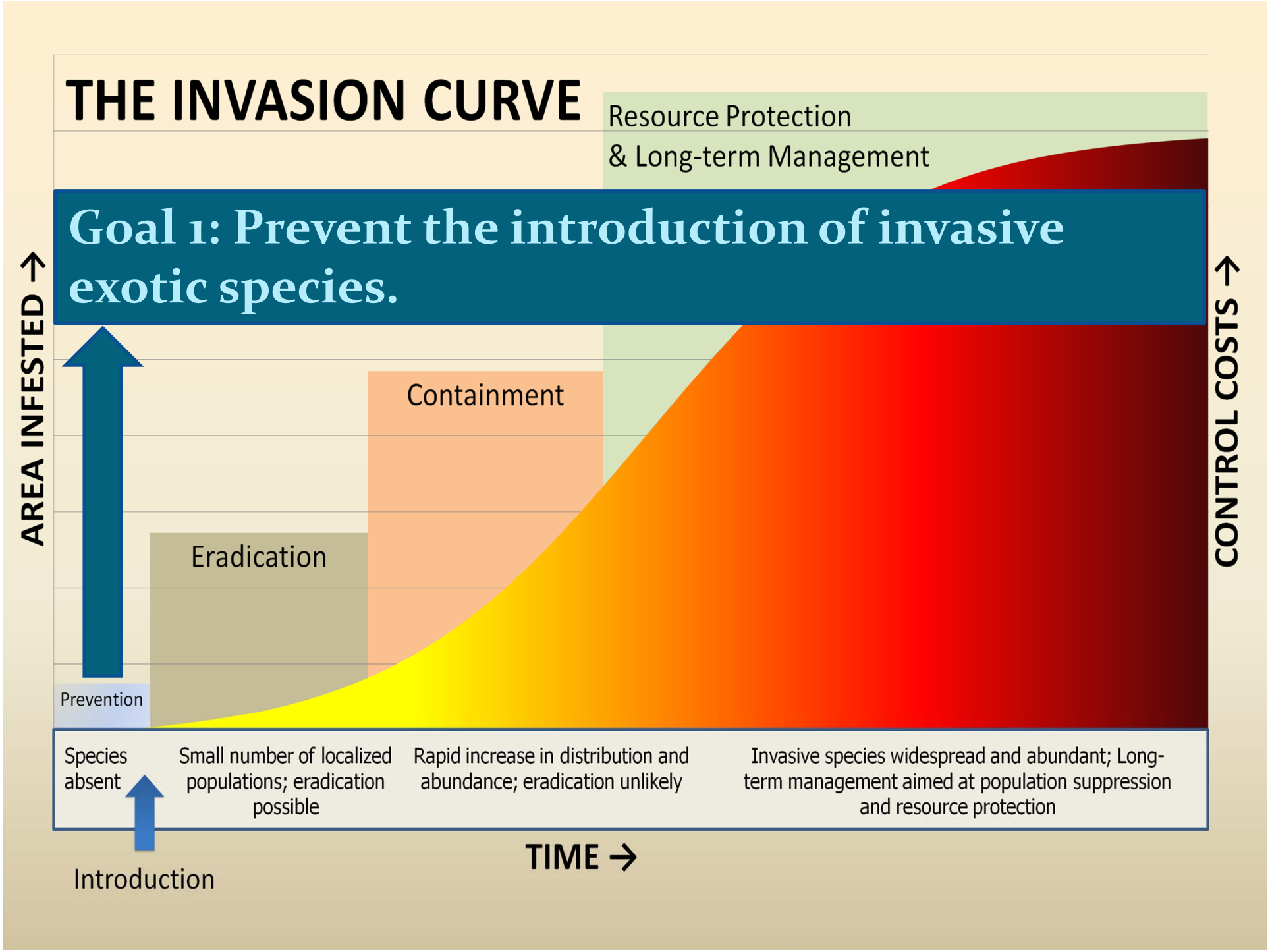
The Stakes Are High

- The South Florida Ecosystem, ecologically unique and imperiled by numerous threats, is the subject of the largest ecosystem scale restoration program in the world.
- The South Florida Ecosystem is also home to:
  - a culturally diverse population of almost 8 million residents, including two Indian tribes,
  - world renowned recreational opportunities, and
  - strong agricultural and tourism-based economic engines.
- Invasive exotic species threaten our environment, economy, culture, and human health.
- Combating invasive exotic species is integral to successful ecosystem restoration and the sustainability of south Florida.

Science, Outreach, Coordination, and Funding are Vital

- Science forms the foundation for the strategies within every goal area.
- Invasive exotic species issues are inherently multi-disciplinary.
- Success will require interagency cooperation, innovative partnerships, and an informed, involved public.
- A successful invasive exotic species program requires long-term commitment of resources.


THE INVASION CURVE
Resource Protection
& Long-term Management
Containment
Eradication
Prevention
AREA INFESTED →
CONTROL COSTS →
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection
TIME →
Introduction


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 1: Prevent the introduction of invasive exotic species.
AREA INFESTED →
CONTROL COSTS →
Containment
Eradication
Prevention
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection
Introduction
TIME →

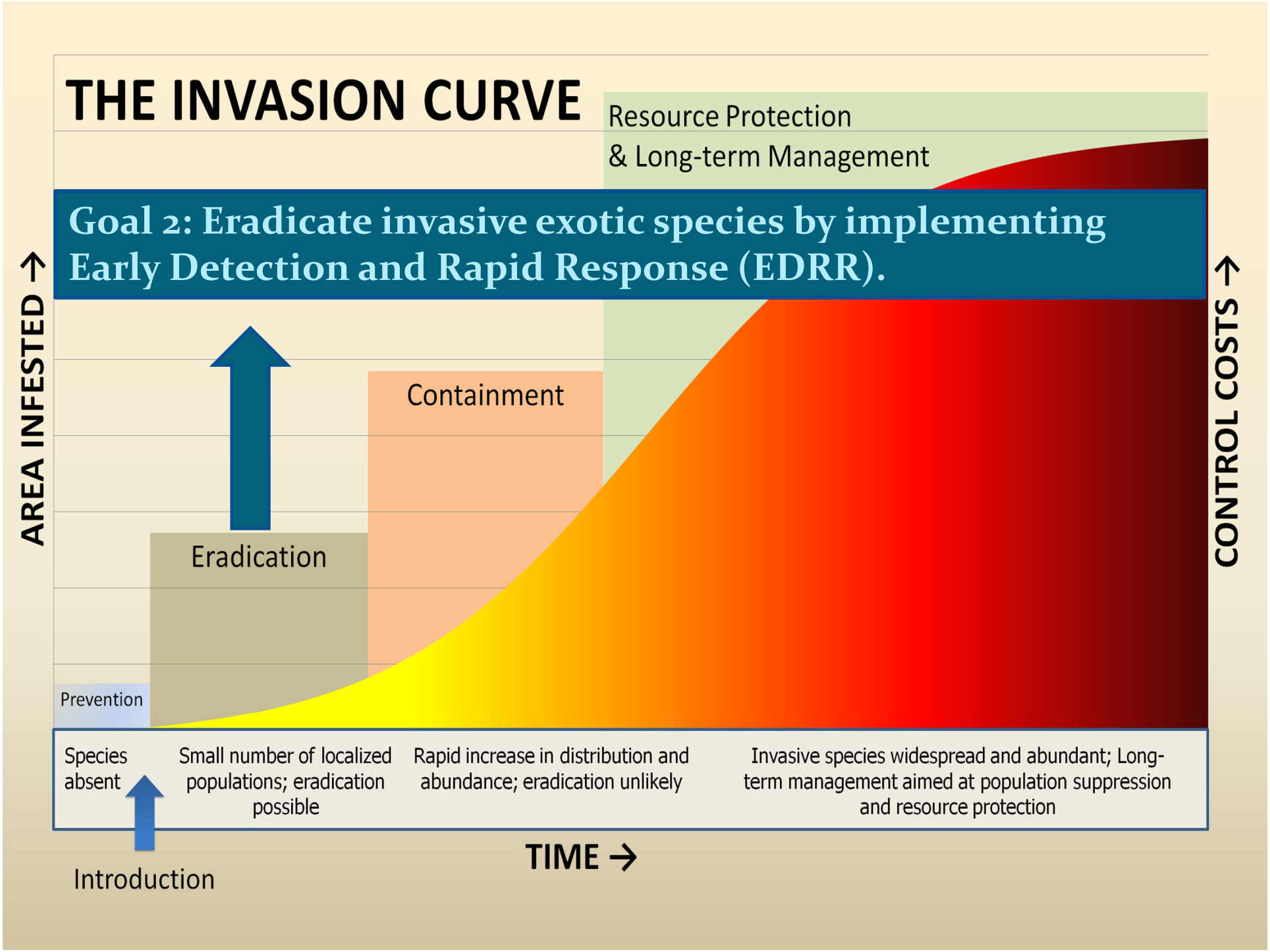
Goal 1: Prevent introduction of invasive exotic species

Preventing introductions of new invasive exotic species is the most cost effective strategy and can yield benefits provided funding and current barriers are addressed up front.

- Objectives:
  - **Prepare:** Prepare for and prioritize prevention efforts.
  - **Prevent:** Prevent entry of invasive exotic species.
- Case Studies:
  - Heartwater Diseases
  - Yellow Anaconda
  - Don't Pack a Pest

Tropical Bont Tick

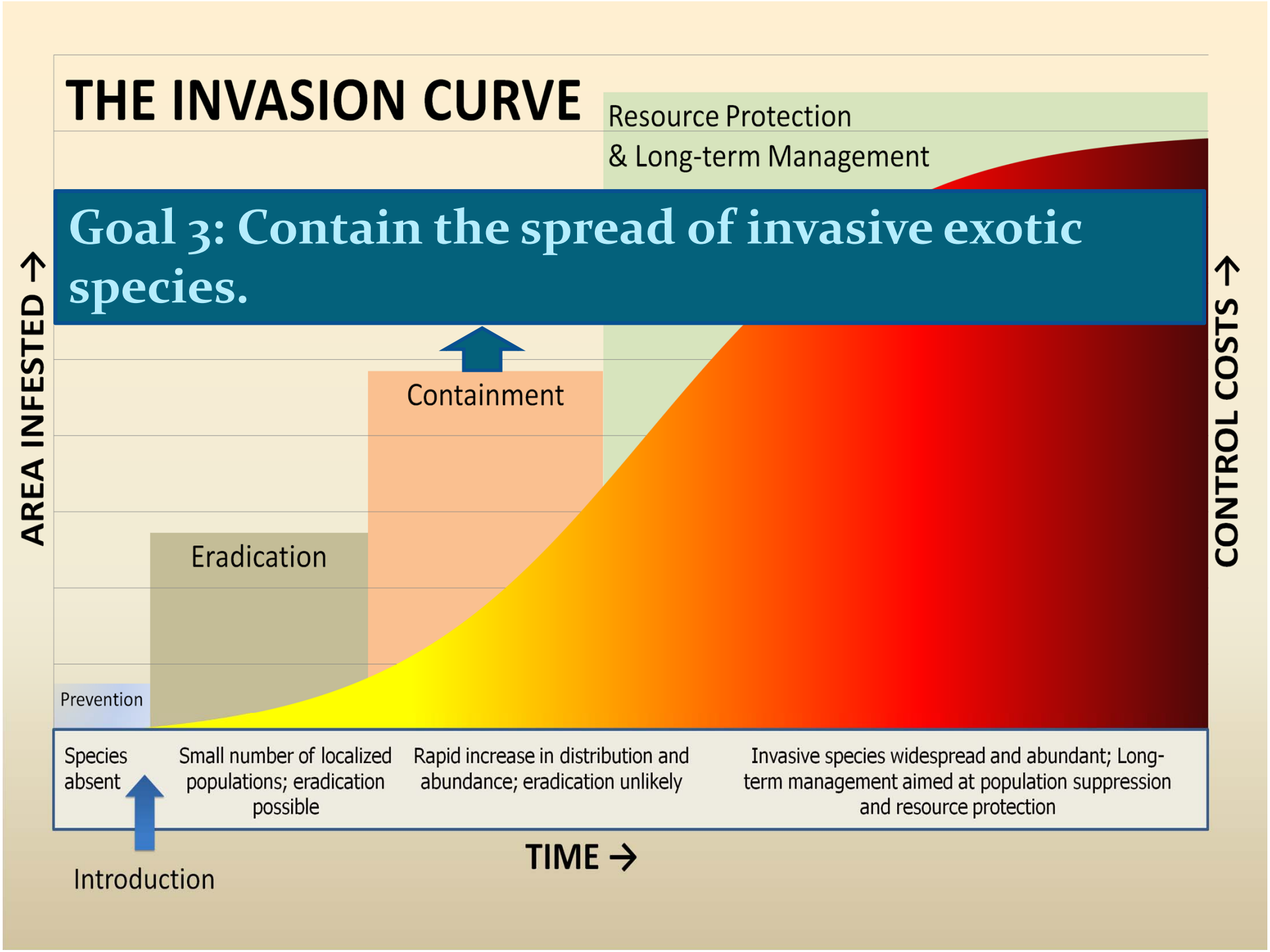
Photo: USFWS Law Enforcement


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 2: Eradicate invasive exotic species by implementing Early Detection and Rapid Response (EDRR).
AREA INFESTED →
CONTROL COSTS →
Containment
Eradication
Prevention
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection
Introduction
TIME →

Goal 2: Eradicate invasive exotic species by implementing EDRR

Successful eradication of newly established invaders through EDRR requires formal collaboration and dedicated staff and funding.

- Objectives:
  - **Prepare & Monitor:** Prepare and monitor to enhance early detection.
  - **Assess:** Ensure rapid assessment of newly detected species.
  - **Respond:** Rapidly respond to identified threats.
- Case Studies:
  - Gambian Pouched Rats
  - Sacred Ibis
  - Tephritid fruit flies


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 3: Contain the spread of invasive exotic species.
AREA INFESTED →
CONTROL COSTS →
Containment
Eradication
Prevention
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection
Introduction
TIME →

Goal 3: Contain the spread of invasive exotic species

Consistent resources to address containment, resource protection, and long-term management are needed.

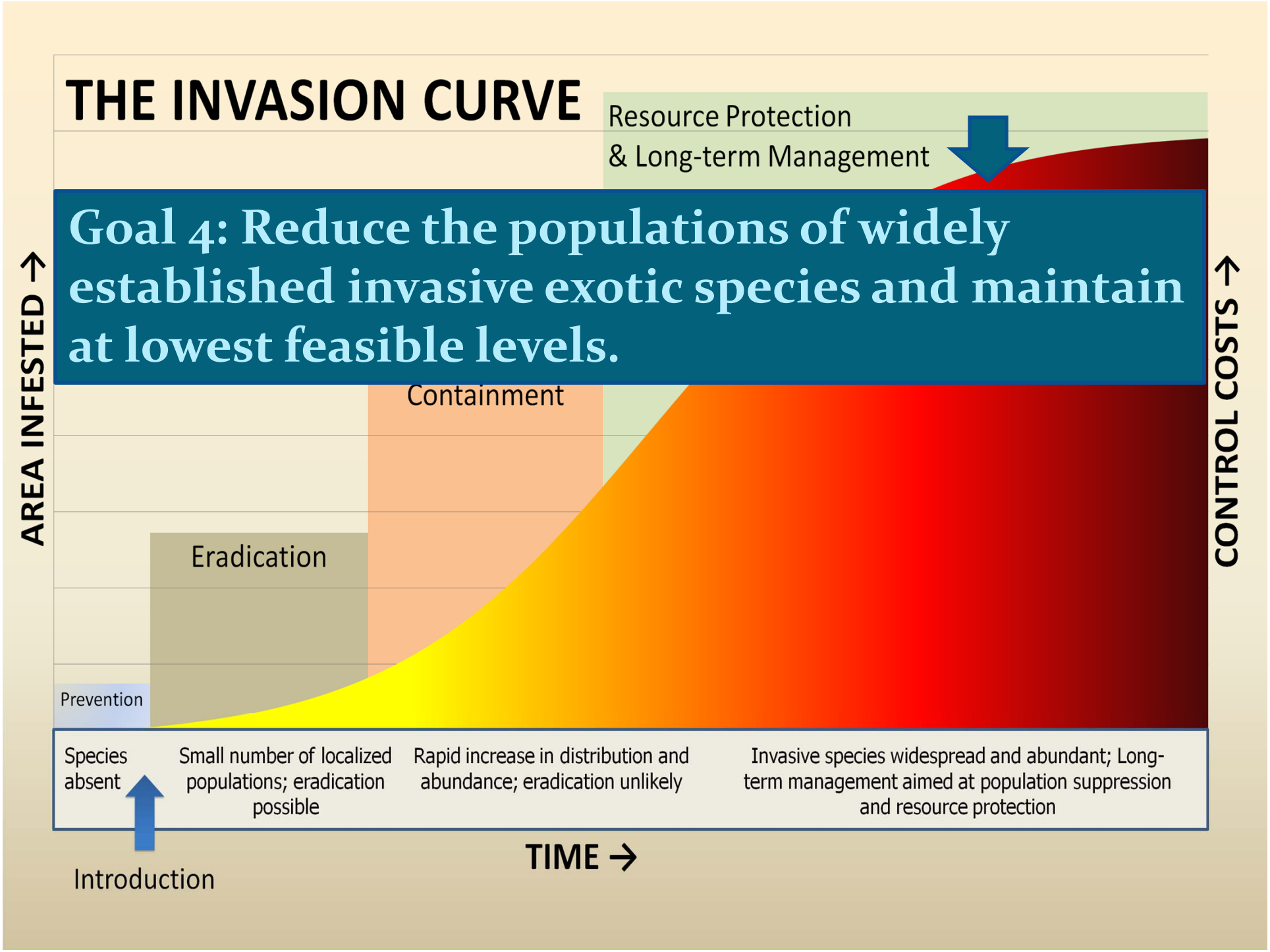
- Objectives:
  - **Coordinate:** Standardize containment efforts through enhanced coordination.
  - **Contain:** Utilize existing control tools to contain invasive exotic species.
  - **Invest:** Invest in science-based containment methods.
  - **Assess & Adapt:** Determine effectiveness of containment efforts on populations of invasive exotic species.

Goal 3: Contain the spread of invasive exotic species

Argentine Black and White Tegu

Photo: Dennis Giardina, FWC

- Case Studies:
  - Argentine black and white tegu


THE INVASION CURVE
Resource Protection
& Long-term Management
Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.
AREA INFESTED →
CONTROL COSTS →
Containment
Eradication
Prevention
Species absent
Small number of localized populations; eradication possible
Rapid increase in distribution and abundance; eradication unlikely
Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection
TIME →
Introduction

Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

Consistent resources to address population reduction, resource protection, and long-term management are needed.

- Objectives:
  - **Combat:** Reduce the population of established invasive exotic species through new controls or increased utilization of existing control tools.
  - **Restore & Recover:** Reduce impacts of invasive exotic species through restoration of native habitats and species.
  - **Invest:** Invest in monitoring, research, science, and tool development.
  - **Assess & Adapt:** Determine effectiveness of long-term management efforts on populations of invasive exotic species.

Goal 4: Reduce the populations of widely established invasive exotic species and maintain at lowest feasible levels.

- Case Studies:
  - Shoebutton Ardisia
  - Ambrosia beetle/laurel wilt disease
  - Lionfish
  - Burmese python
  - Melaleuca

Next Steps

Next Steps

- Refining the draft with IES partners.
- Continuing to enhance web-based framework.