

Mangroves of the Mesoamerican Reef Ecoregion

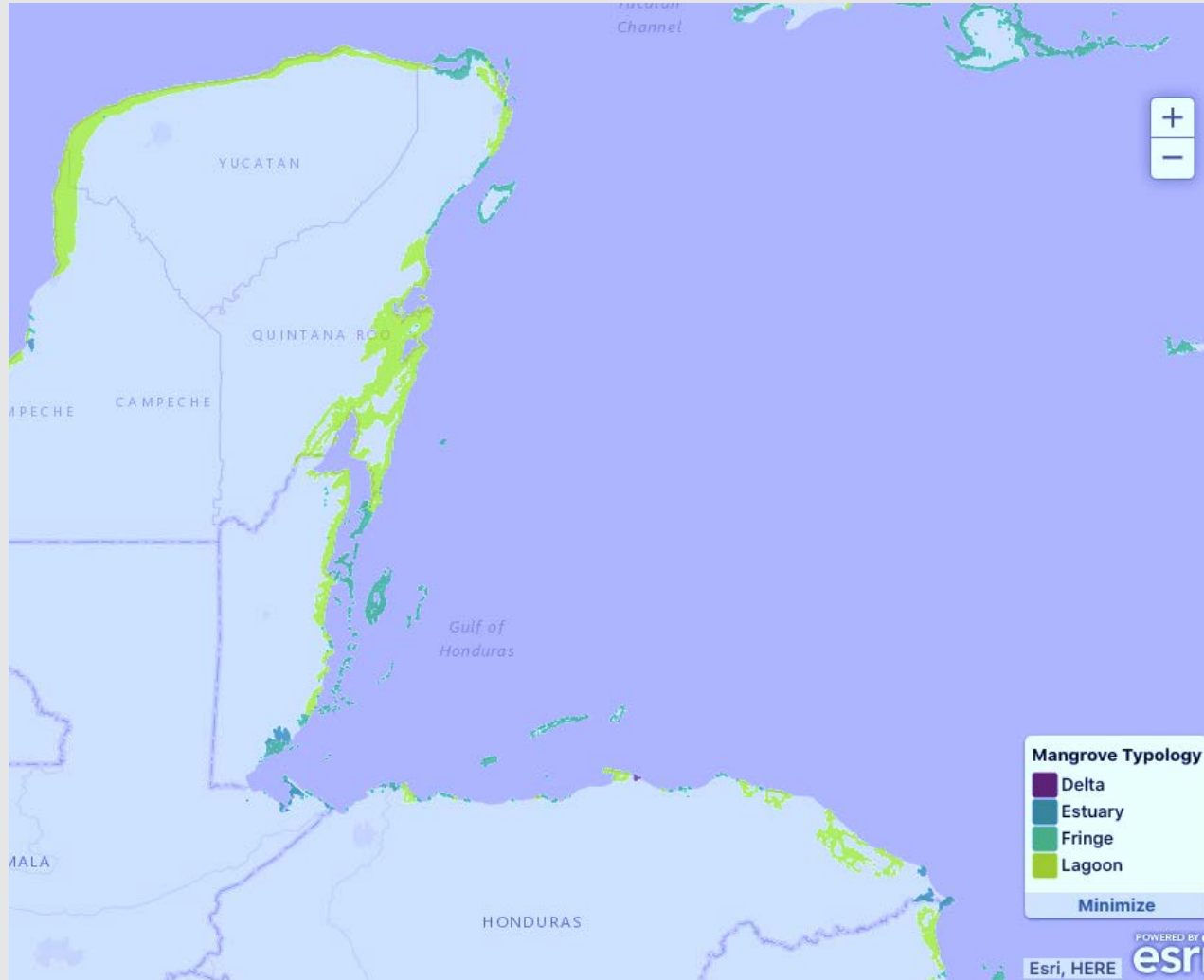
Steve Canty

Smithsonian Marine Station, Marine Conservation Program

Conservation Commons, Working Land and Seascapes

CantyS@si.edu

Mangroves in the MAR



Mexico – 53.5%
128,049ha

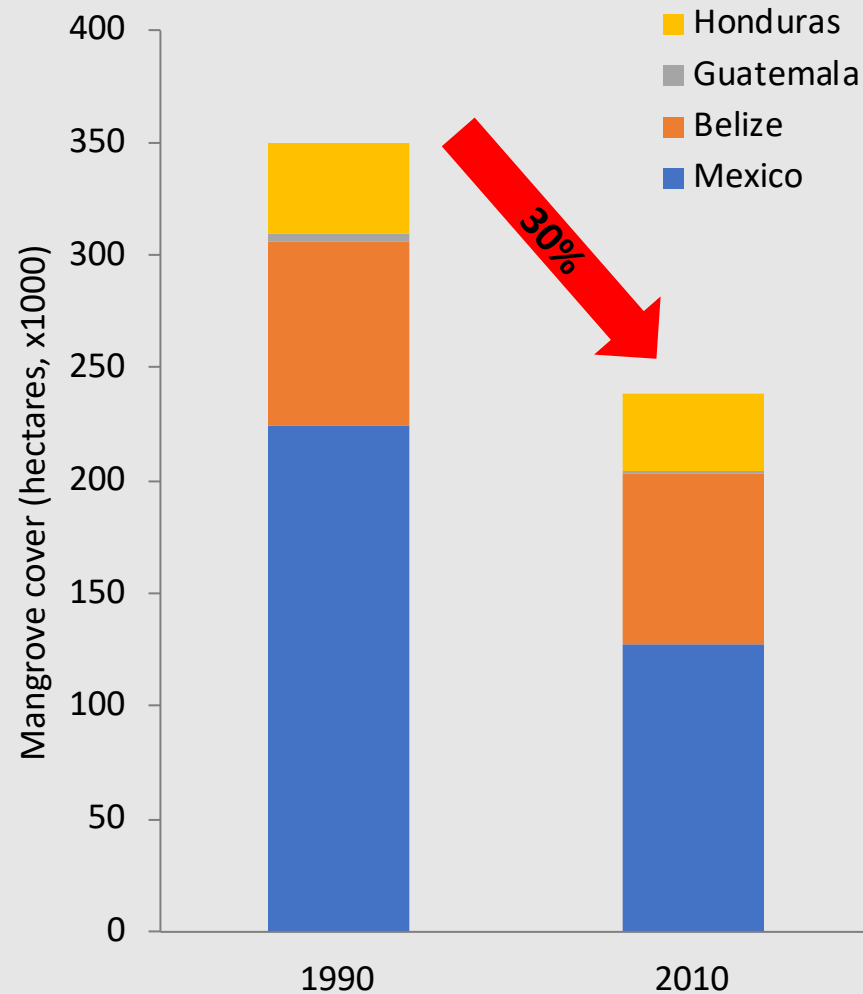
Belize – 31.3%
74,684ha

Honduras – 14.7%
35,273ha

Guatemala – 0.5%
1,170ha



Mangrove loss in the MAR



- Lost over 100,000 hectares

Positives?

- Increasing management interest
- Restoration potential by area
 - Mexico – 13%
 - Belize – 13%
 - Guatemala – 7%
 - Honduras – 12%

<http://maps.oceanwealth.org/mangrove-restoration/>

Threats



1. Governance
2. Coastal development
3. Agriculture
4. Climate change
5. Lack of enforcement

Amenazas



1. Gobernanza
2. Desarrollo costero
3. Agricultura
4. Cambio climático
5. Falta de aplicación

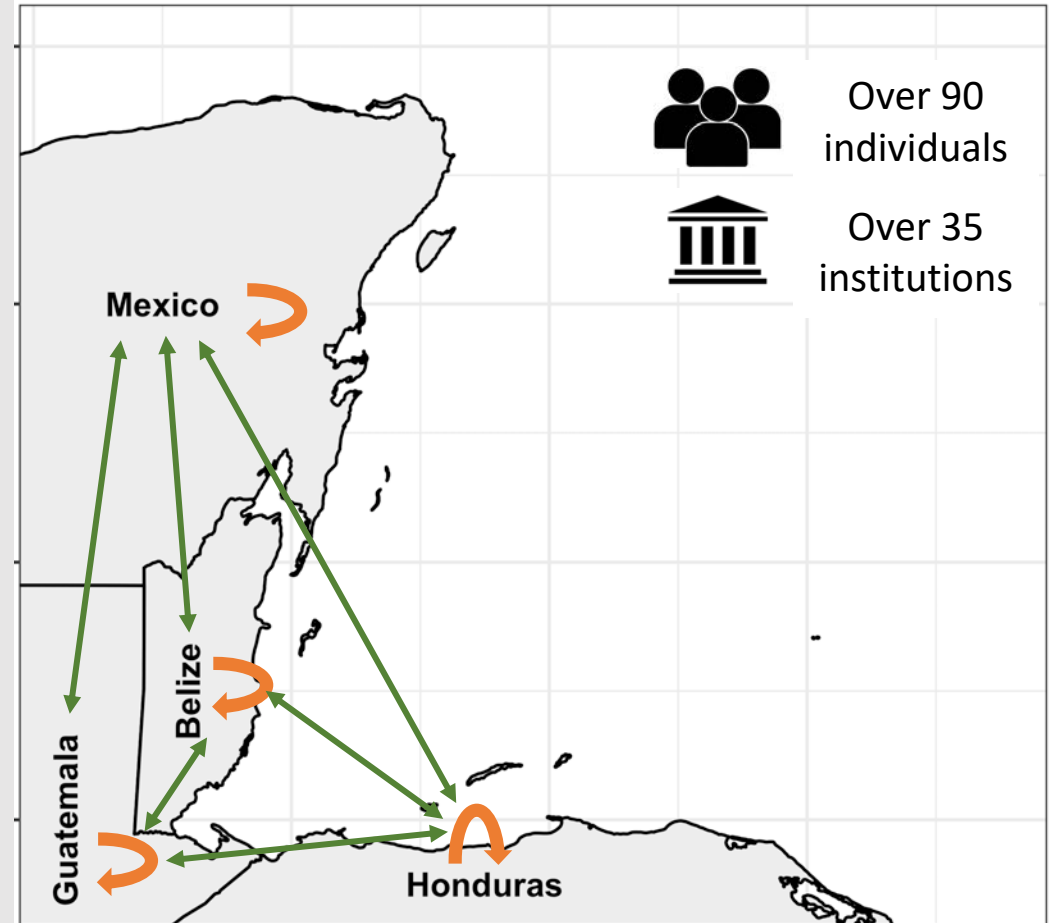
Scales of threats

- Localized drivers of deforestation and ecosystem decline
- Regional decline of connected ecosystems
- Global threat of climate change



Mangrove and Seagrass Network

- Established in 2018 – An extension of the *Healthy Reefs for Healthy People Initiative*
- Connecting managers, government agencies, civil society, researchers and scientists
- Increasing knowledge sharing and learning experiences
- Building a map of previous, current and future projects and collaborations



Weaknesses



1. Lack of enforcement
2. Lack of resources
3. Data void
4. Complex governance
5. Intrinsic value

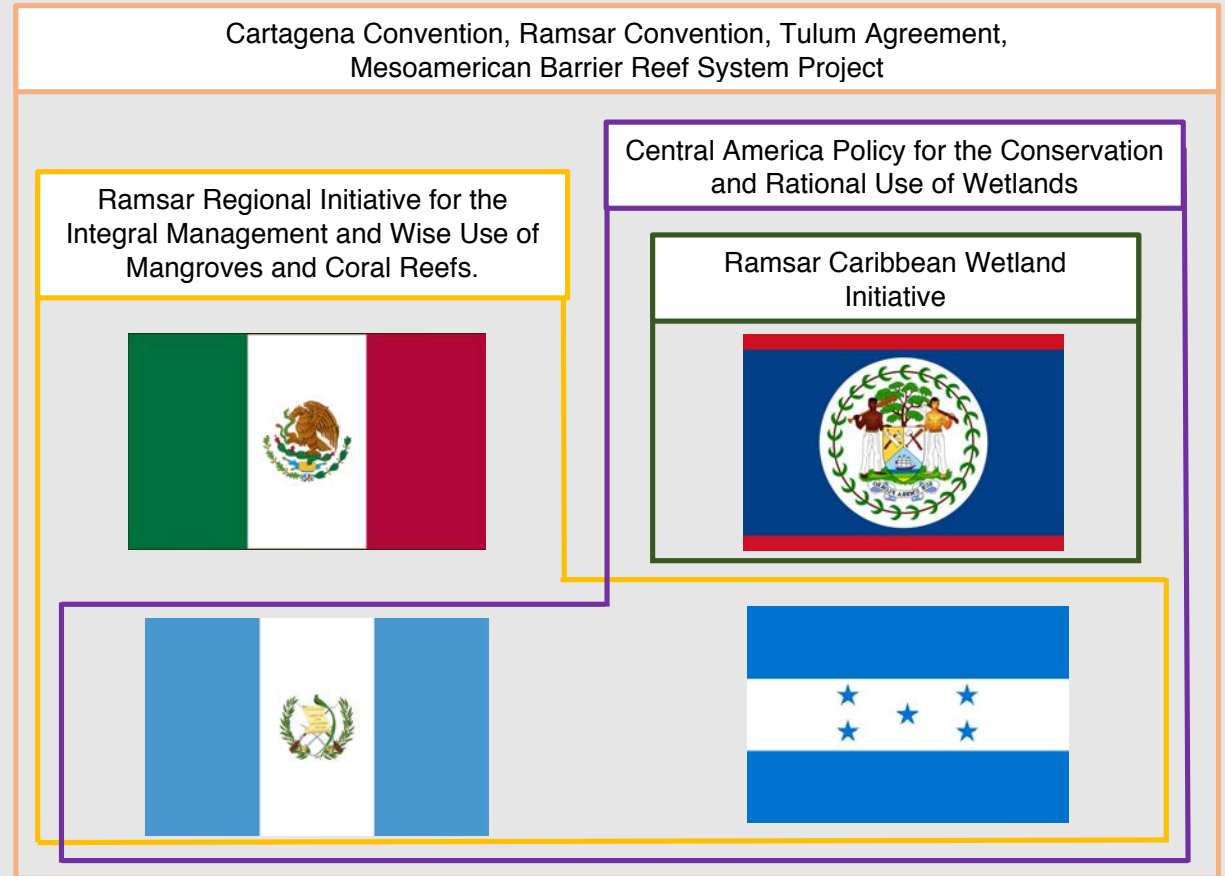
Debilidades



1. Falta de aplicación
2. Falta de recursos
3. Void de datos
4. Gobernanza compleja
5. Valor intrínseco

Governance

- Internal governance frameworks are complex
- Countries not aligned on regional and international agreements
- Lack of resources - the major cause of protected area failure (Gill *et al.*, 2018)



Strengths

Fortalezas



1. Existing Legislation
2. Monitoring and Investigations
3. Restoration projects
4. NGOs and local stakeholders
5. Protected Areas

1. Legislación existente
2. Monitoreo e investigaciones
3. Proyectos de restauración
4. ONG y socios locales interesadas
5. Areas protegidos

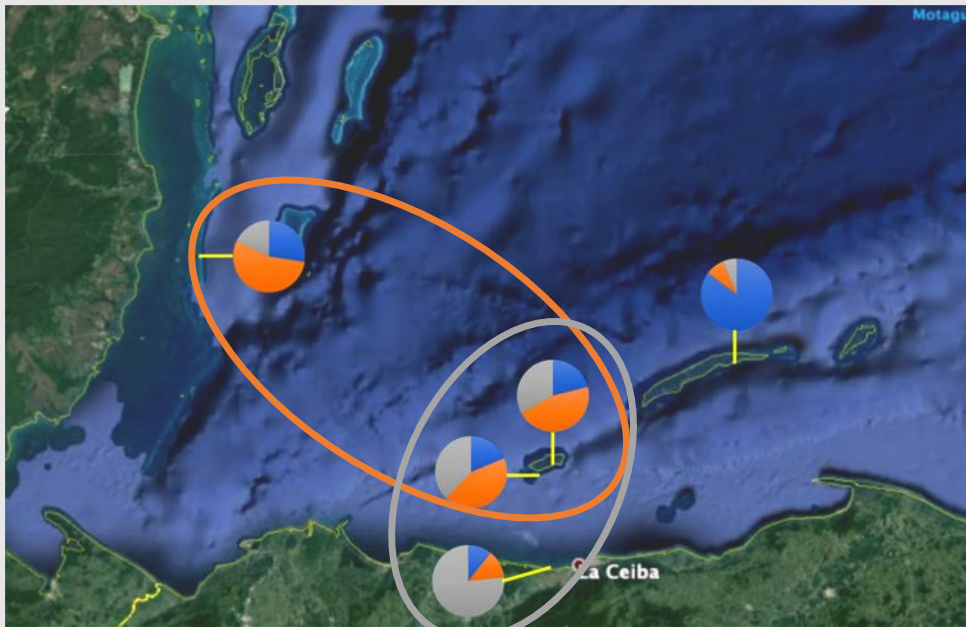
Mangrove management

- Legally protected in all four countries
 - Mexico – 100% Public
 - Guatemala – 100% Public
 - Honduras – 100% Public
 - Belize - 30% Public / 70% Private
- 42 protected/managed areas
 - 46.6% mangroves protected
(~80% in Guatemala (2 Ramsar sites))

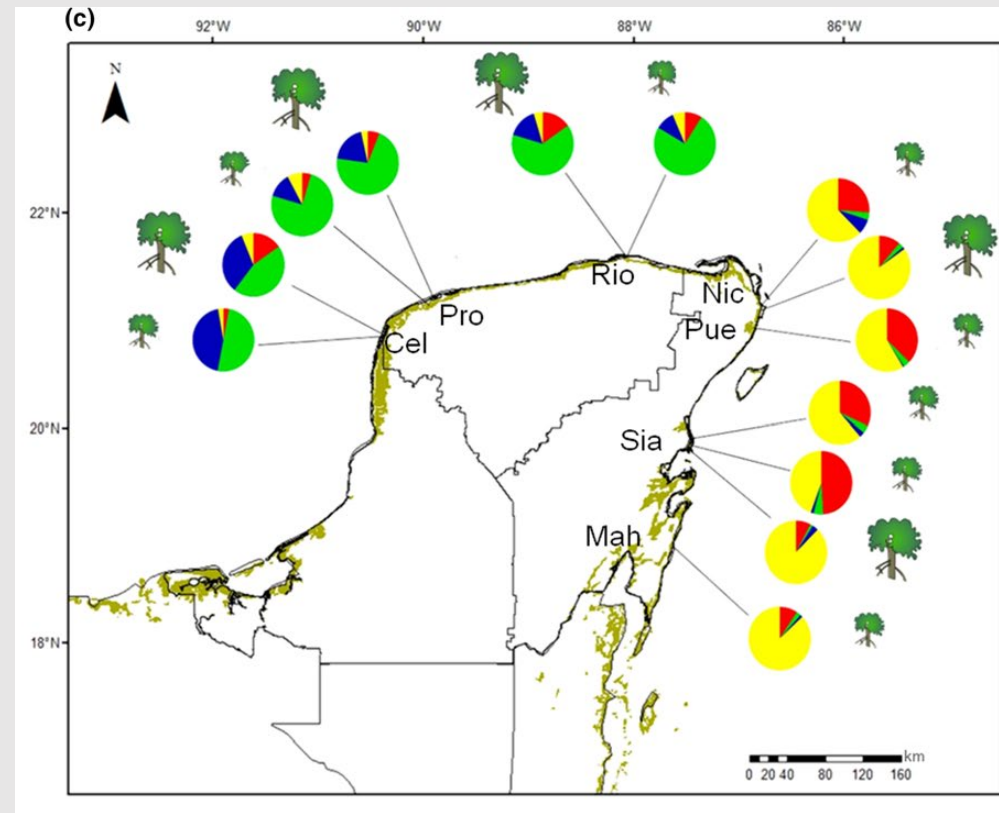


Mangrove connectivity

- Genetic studies have shown various levels of connectivity



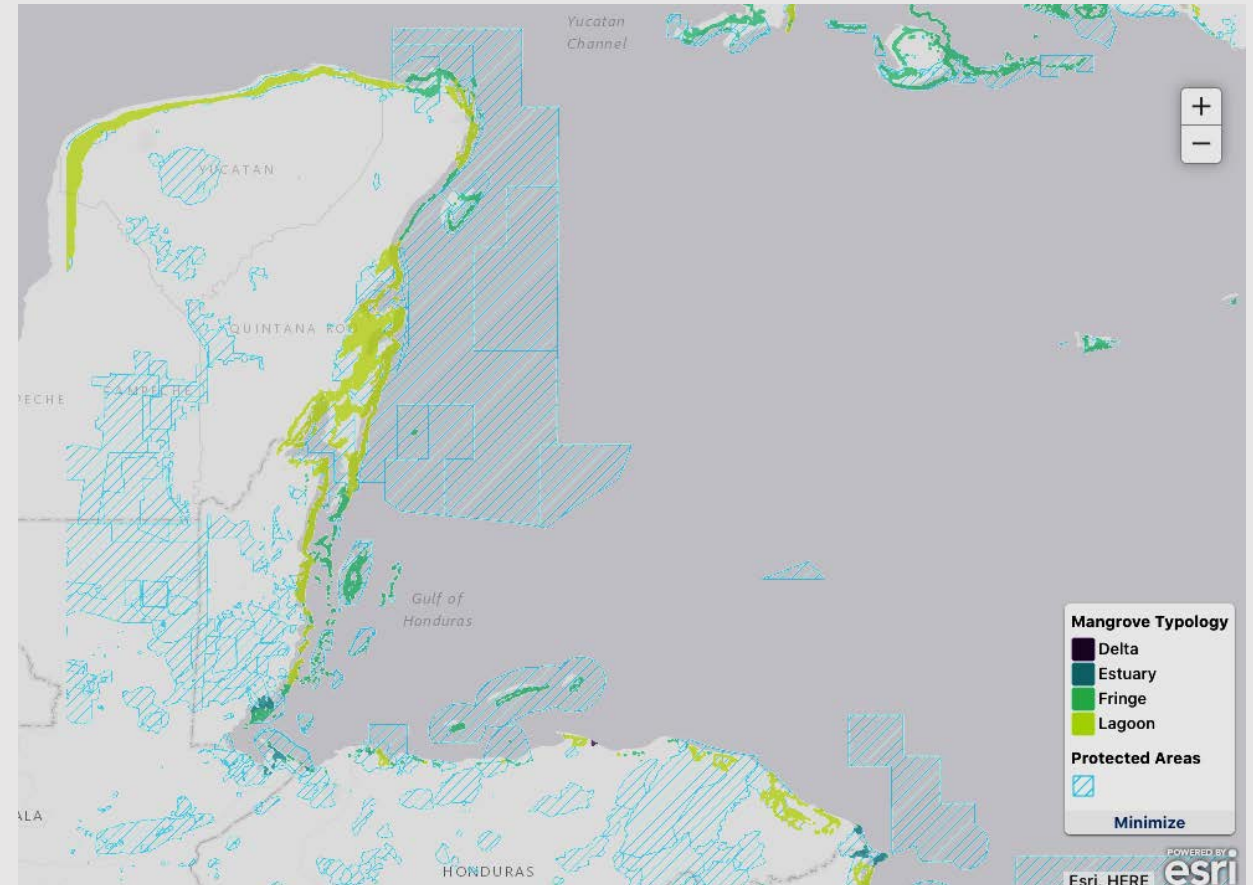
(Canty *et al.*, unpublished)



(Cisneros-de la Cruz *et al.*, 2018)

Current and future projects

- Building climate resilience
 - Ecosystems
 - Coastal communities
- Marine spatial planning
 - Mangrove populations
 - Connectivity with other ecosystems
- Supporting critical initiatives
 - Blue Carbon
 - Restoration
 - Ecosystem function



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Gracias

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