



United for  
life and  
livelihoods

# Using Ecosystem Services to Support Forest Landscape Restoration (FLR) Policies in Central America

## Examples from El Salvador and Honduras

Leander Raes

ACES Washington DC

6 December, 2018

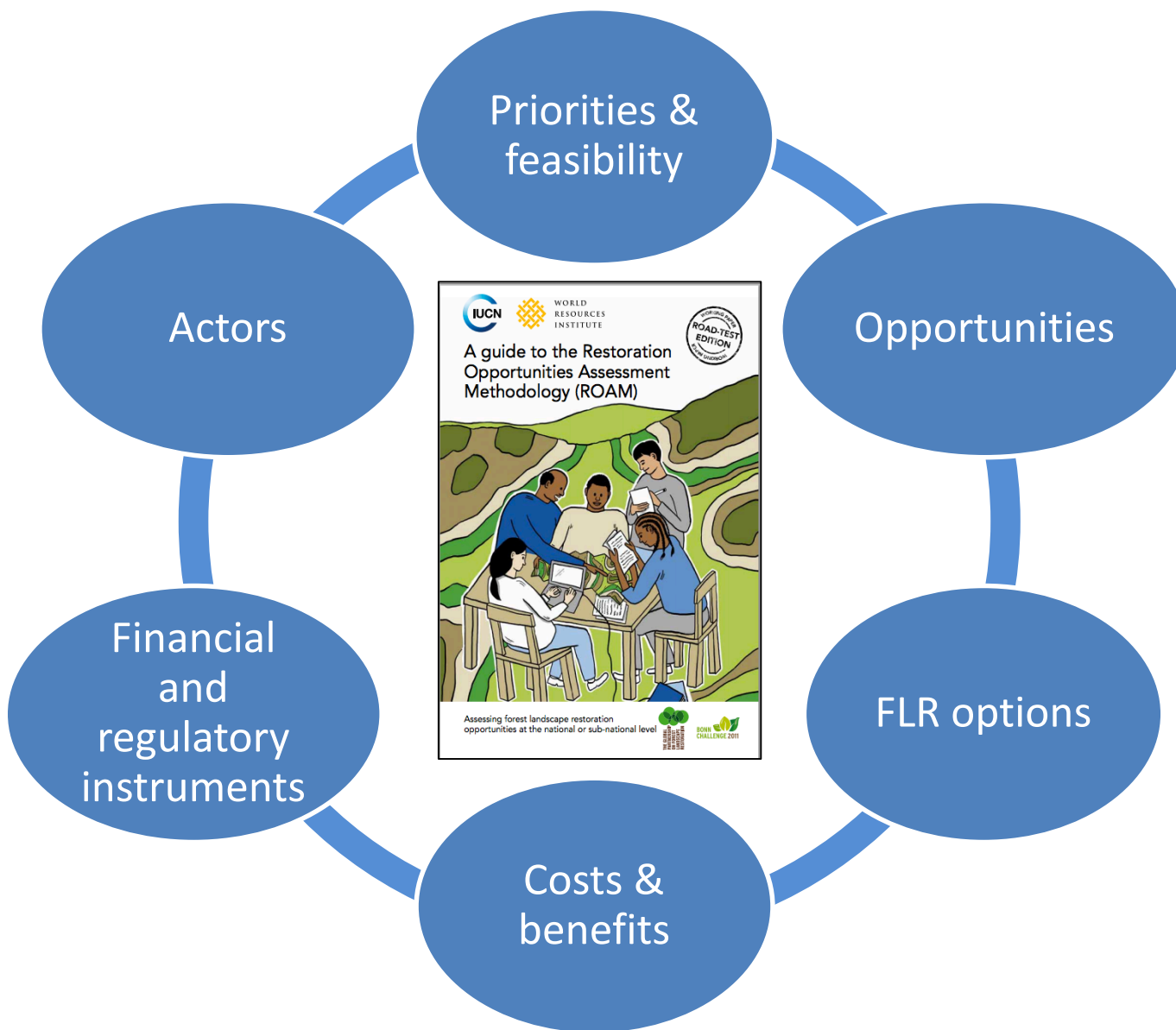


The Bonn Challenge is a global effort to bring 150 million hectares of degraded & deforested land into restoration by 2020 & 350 million hectares by 2030.

Vehicle for domestic priorities such as improving food, water & energy security, & promoting rural development.

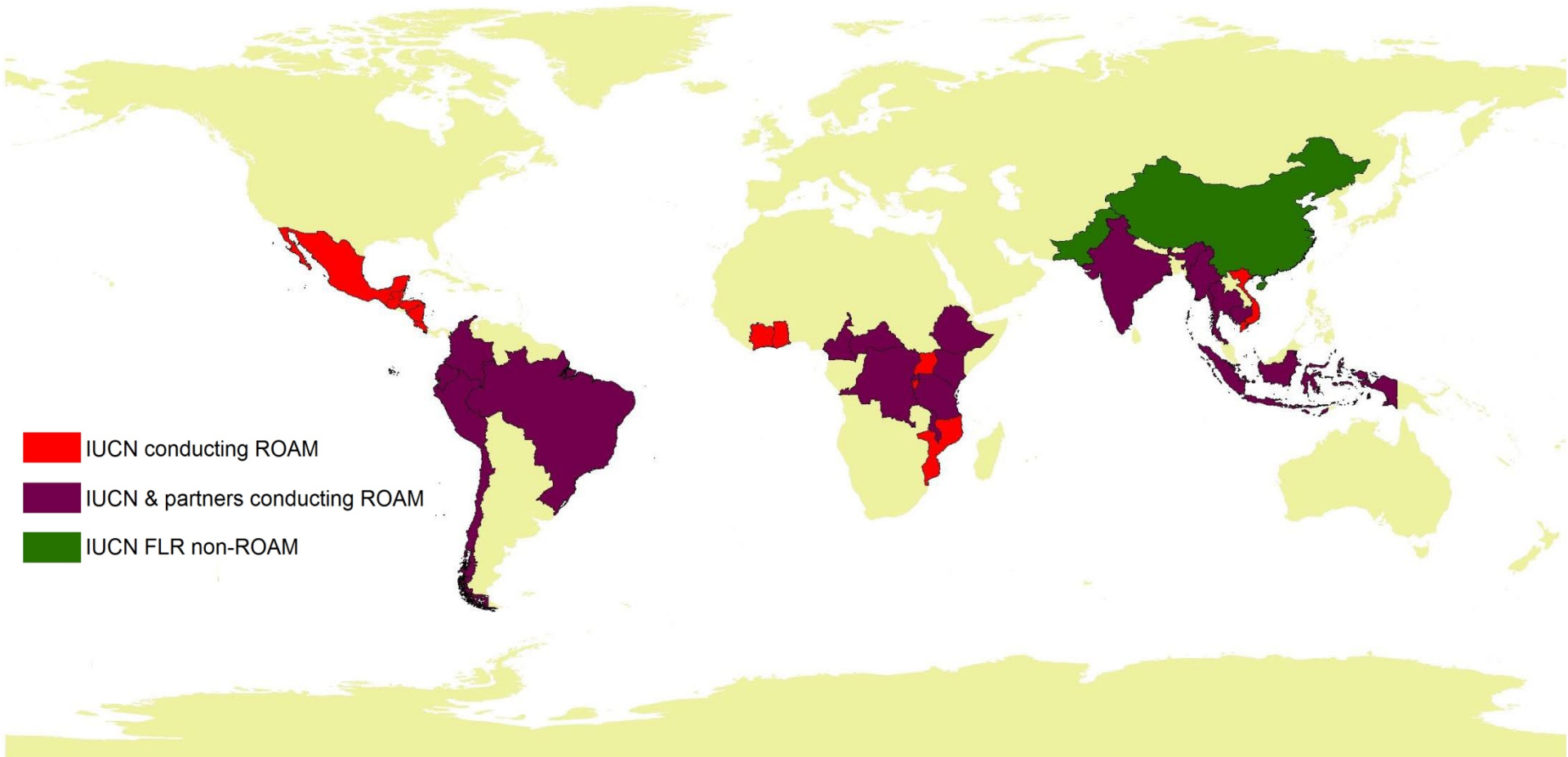


# ROAM



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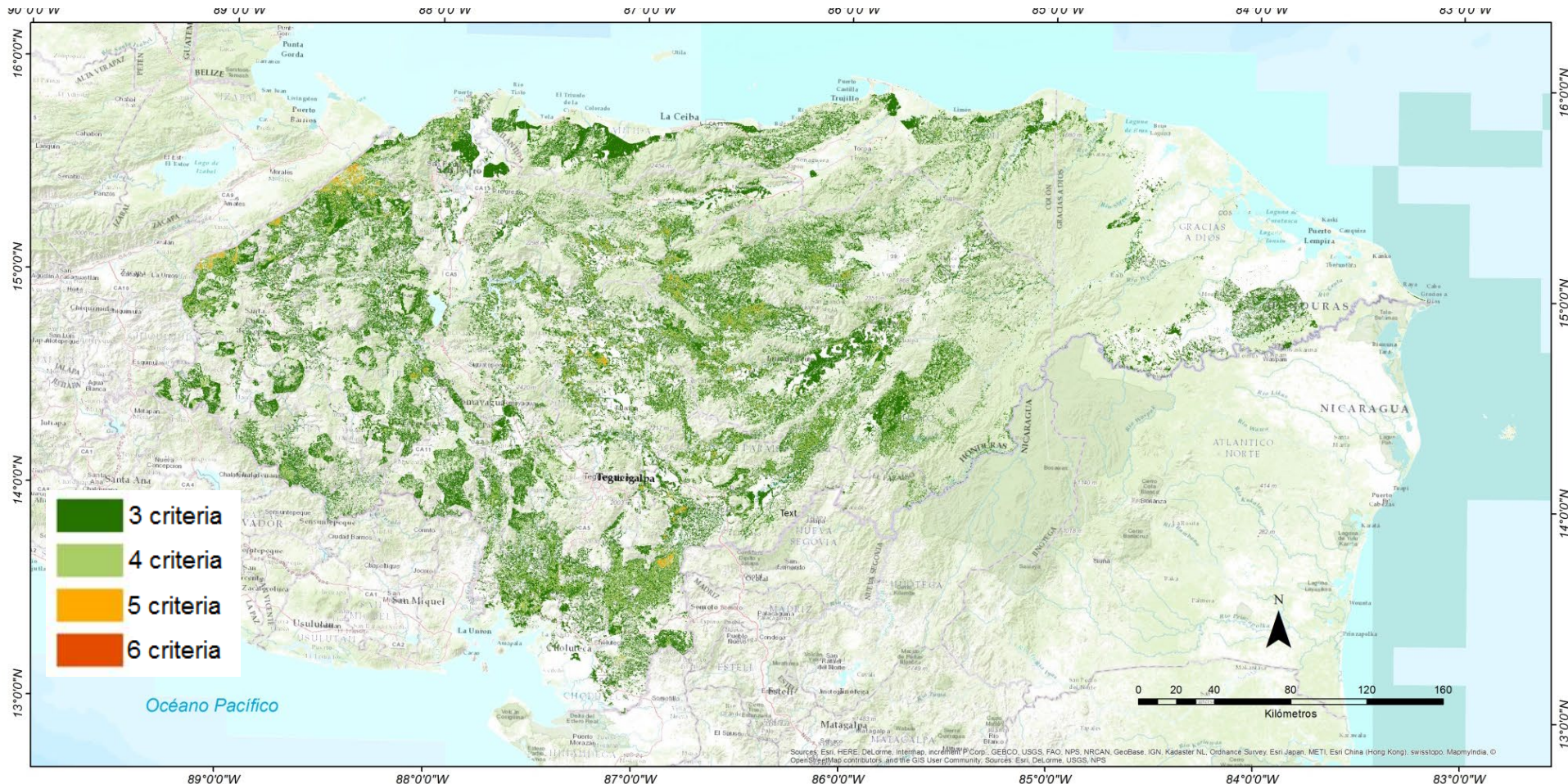
# IUCN implementing ROAM & FLR analyses



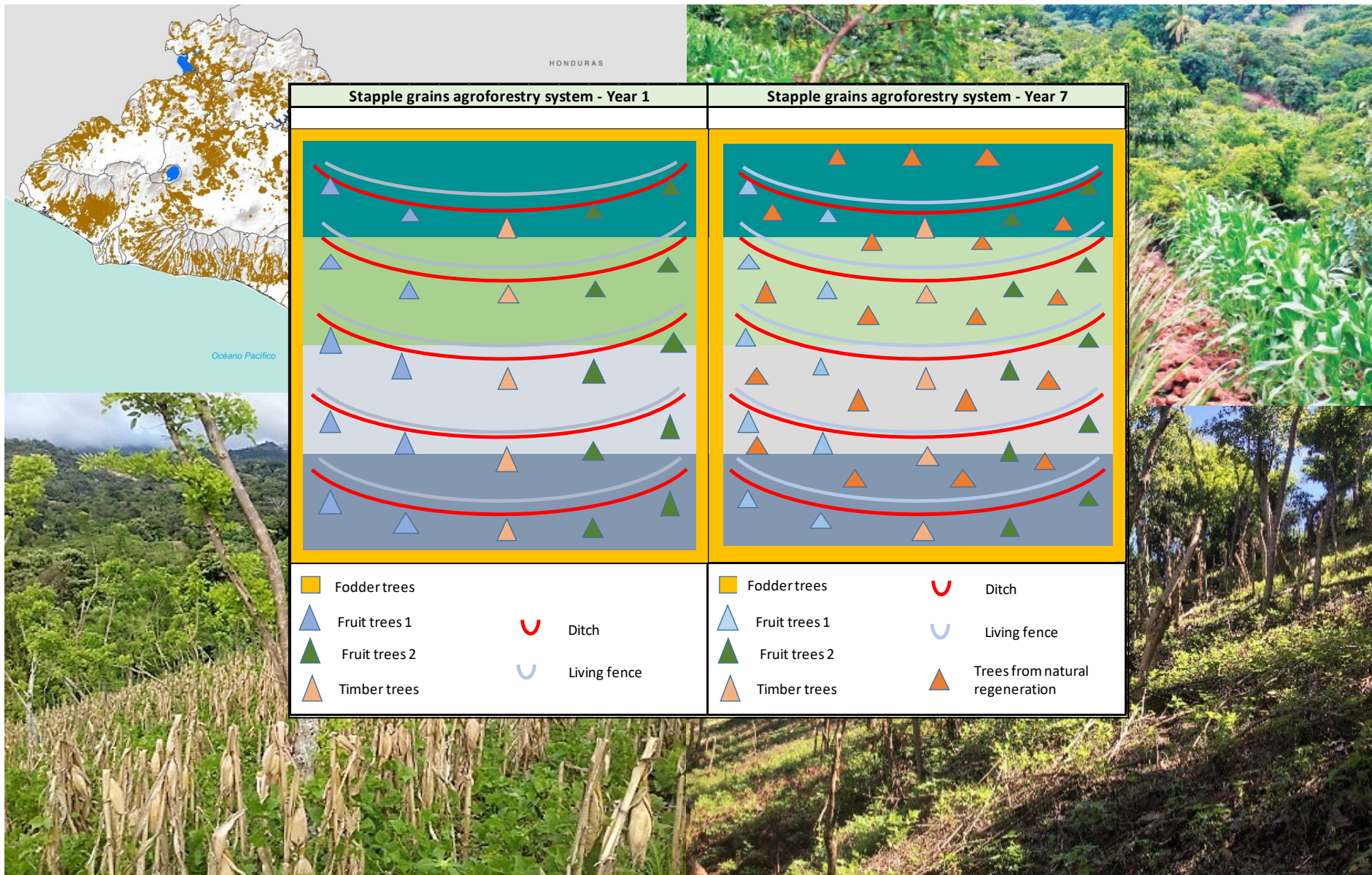
# Opportunities for Landscape Restoration

Several criteria:

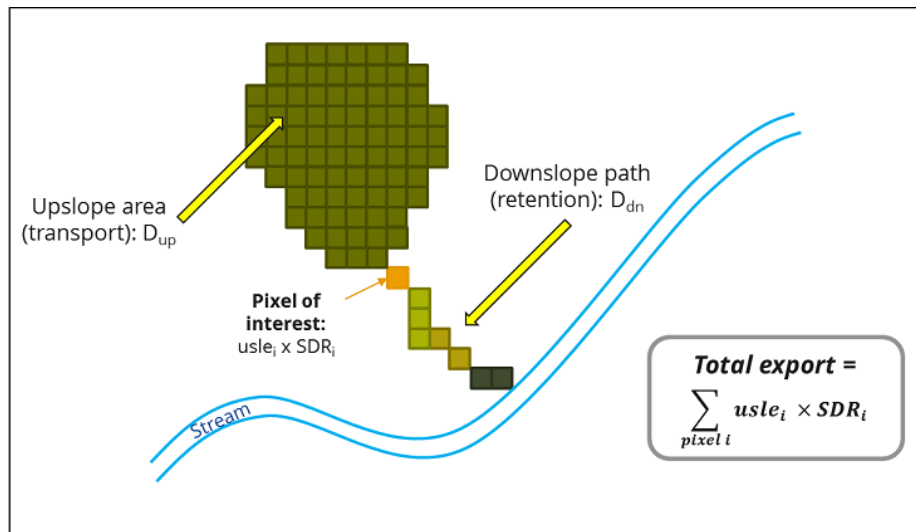
Biodiversity, water, natural disasters, mangroves, drought, weevils, potential for cacao



# Restoration options: proposed agroforestry system with staple grains in El Salvador



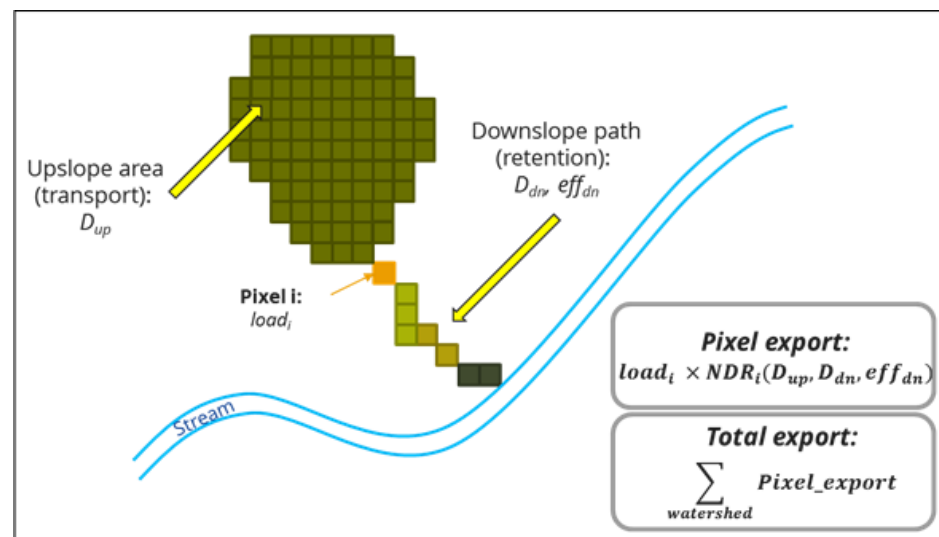
# Impact of FLR actions on provision of ecosystem services



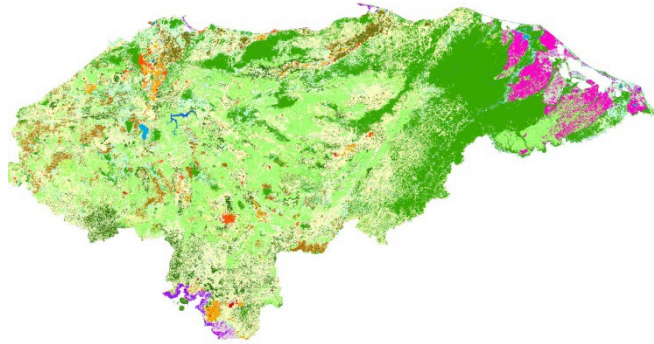
SDR model



NDR model



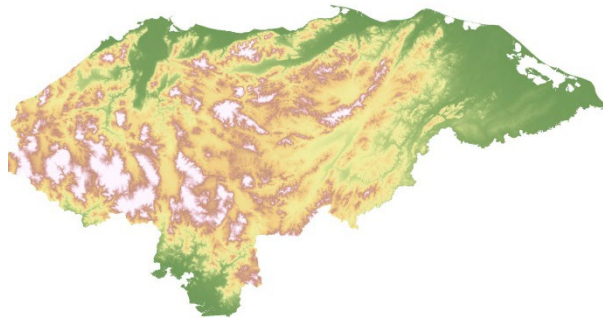
# Example, input SDR model



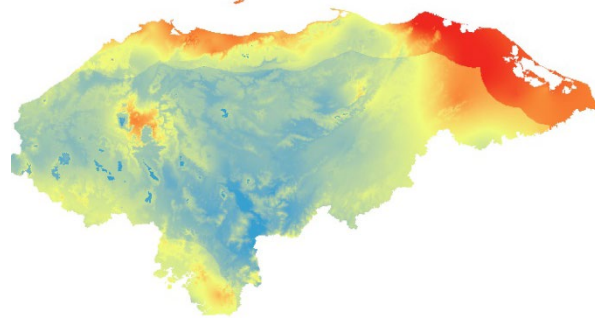
**Land use**



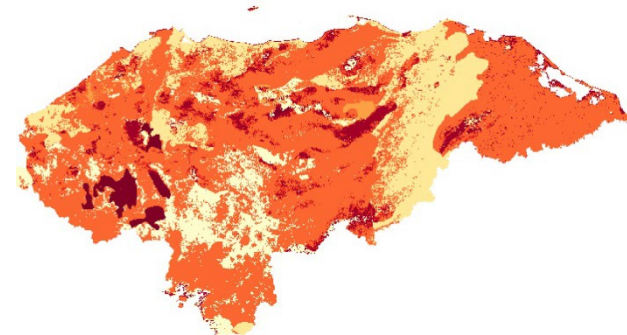
**Sub-watersheds**



**Digital elevation  
model**



**Rainfall erosivity**

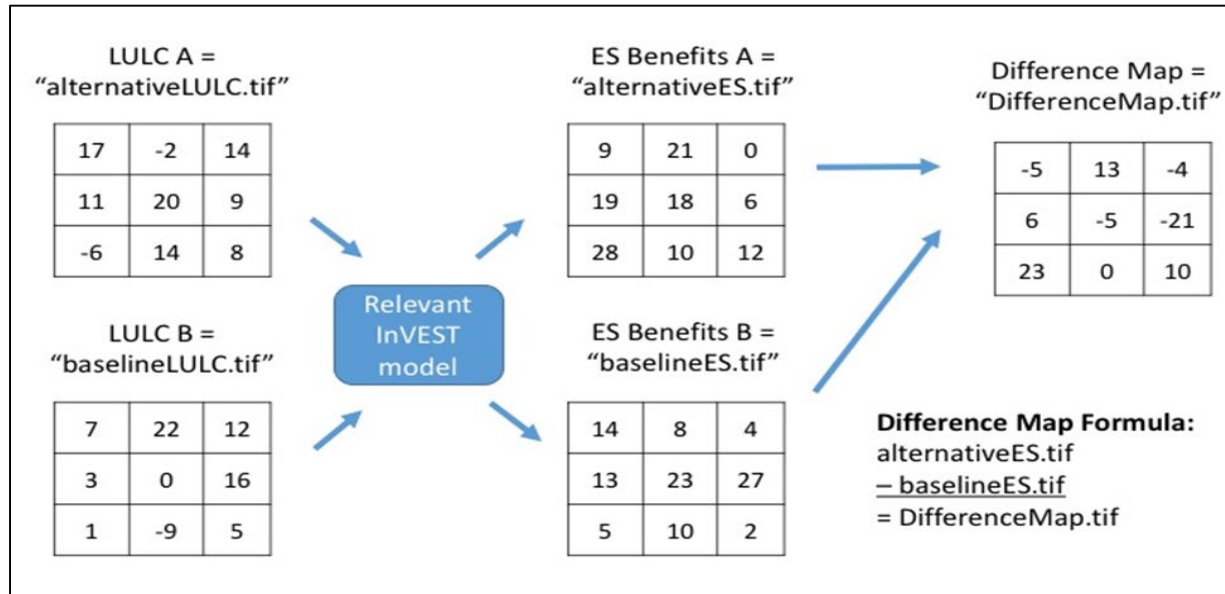


**Soil erodibility**

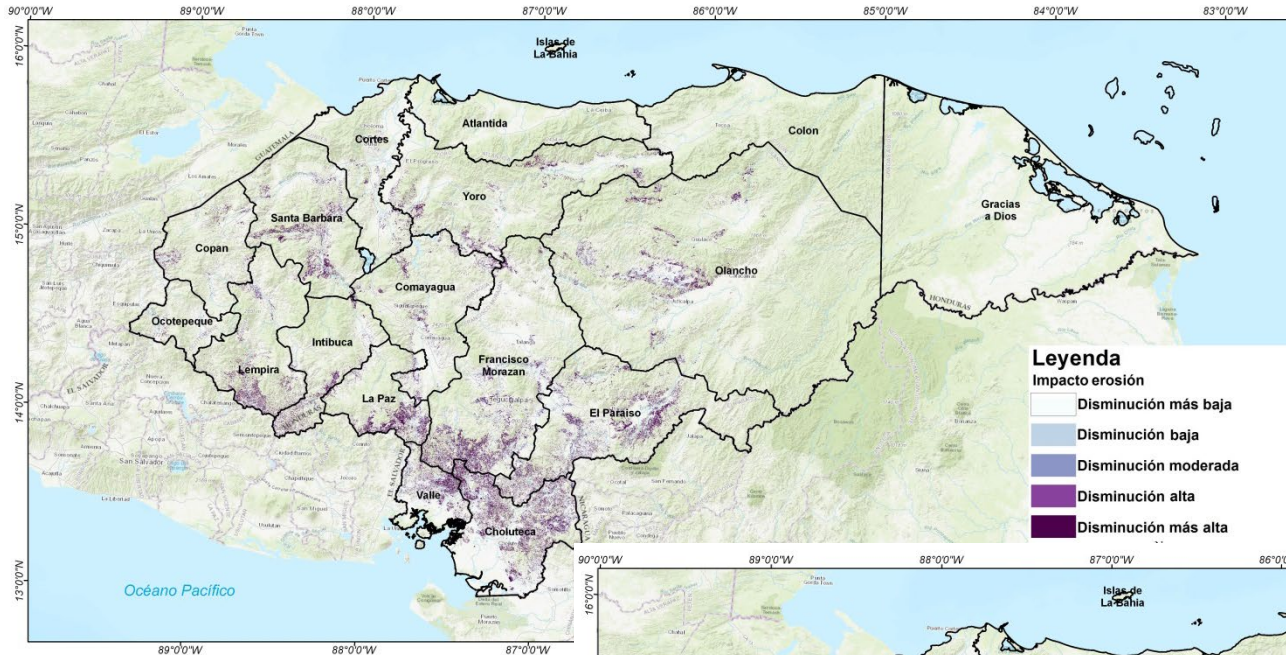
+ CSV file with cover factor (C), conservation practice factor (P), sediment retention efficiency



# Impact potential maps (marginal values)

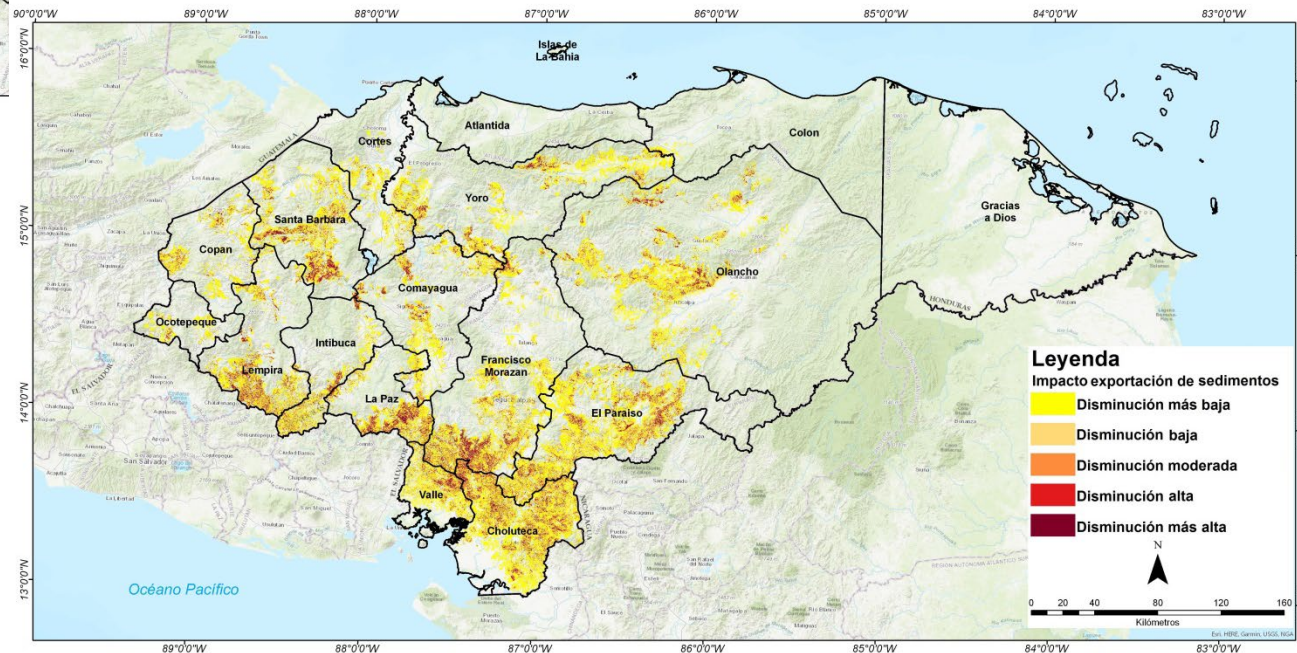


# Impact potential maps (SDR model)

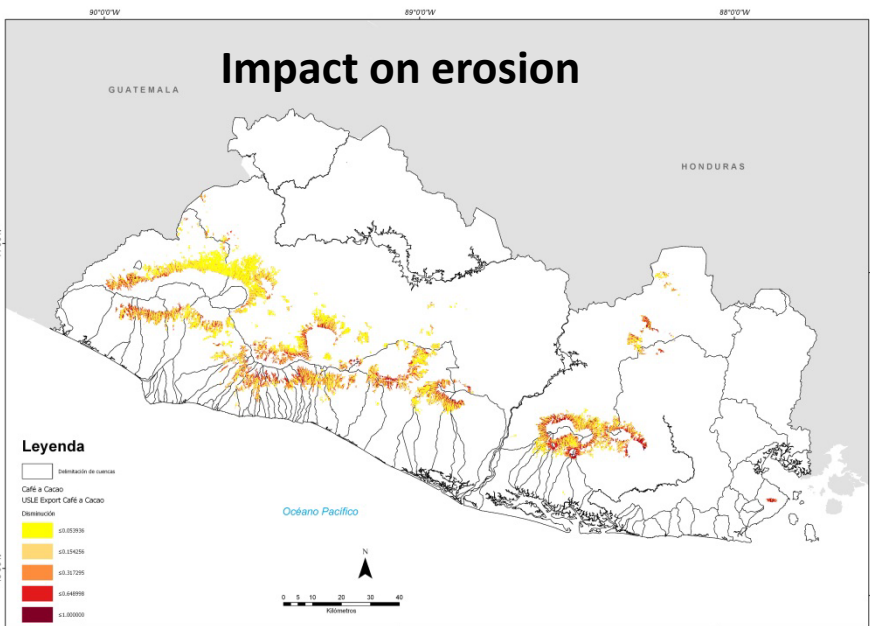


← Impact on erosion

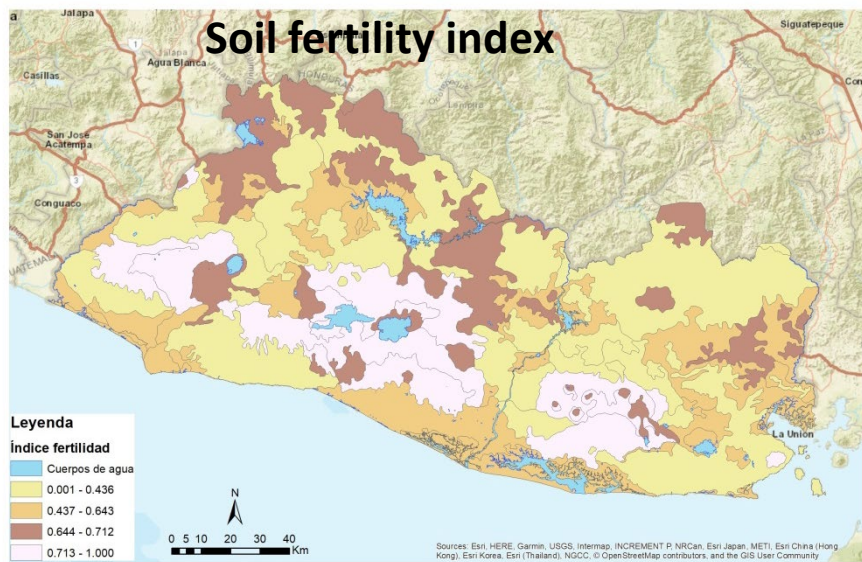
Impact on sediment export →



# Example prioritization (1)

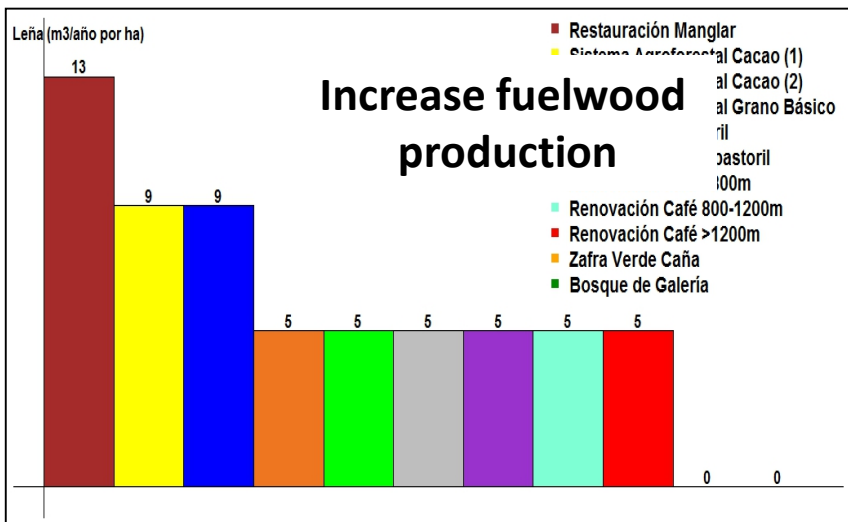


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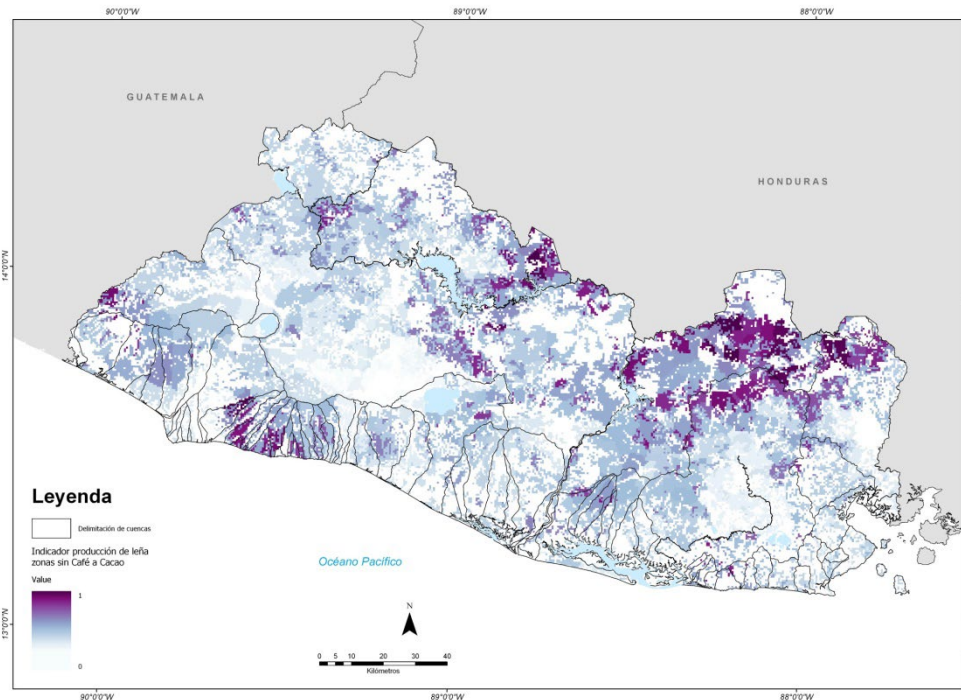
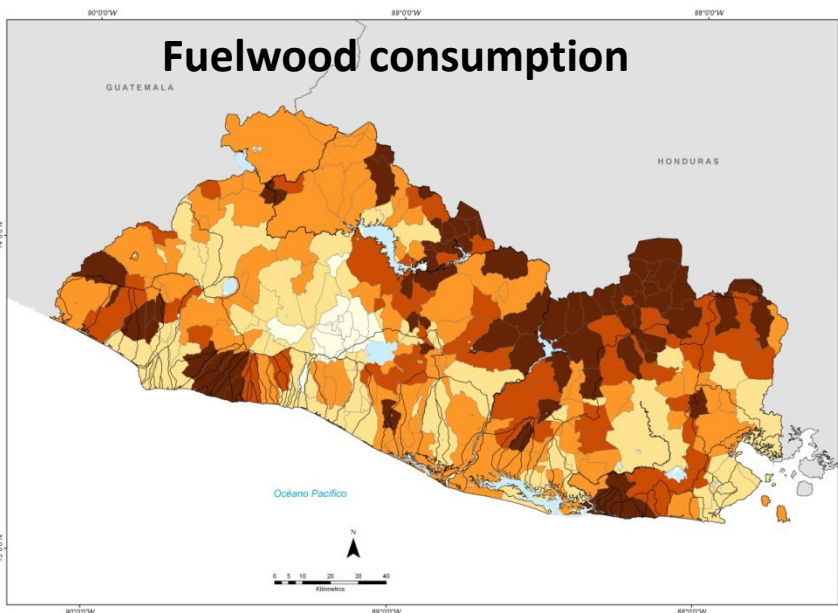


**Prioritization cacao agroforestry system in coffee < 900 masl according to reduced erosion and soil fertility**

# Example prioritization (2)

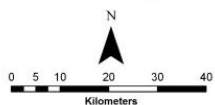
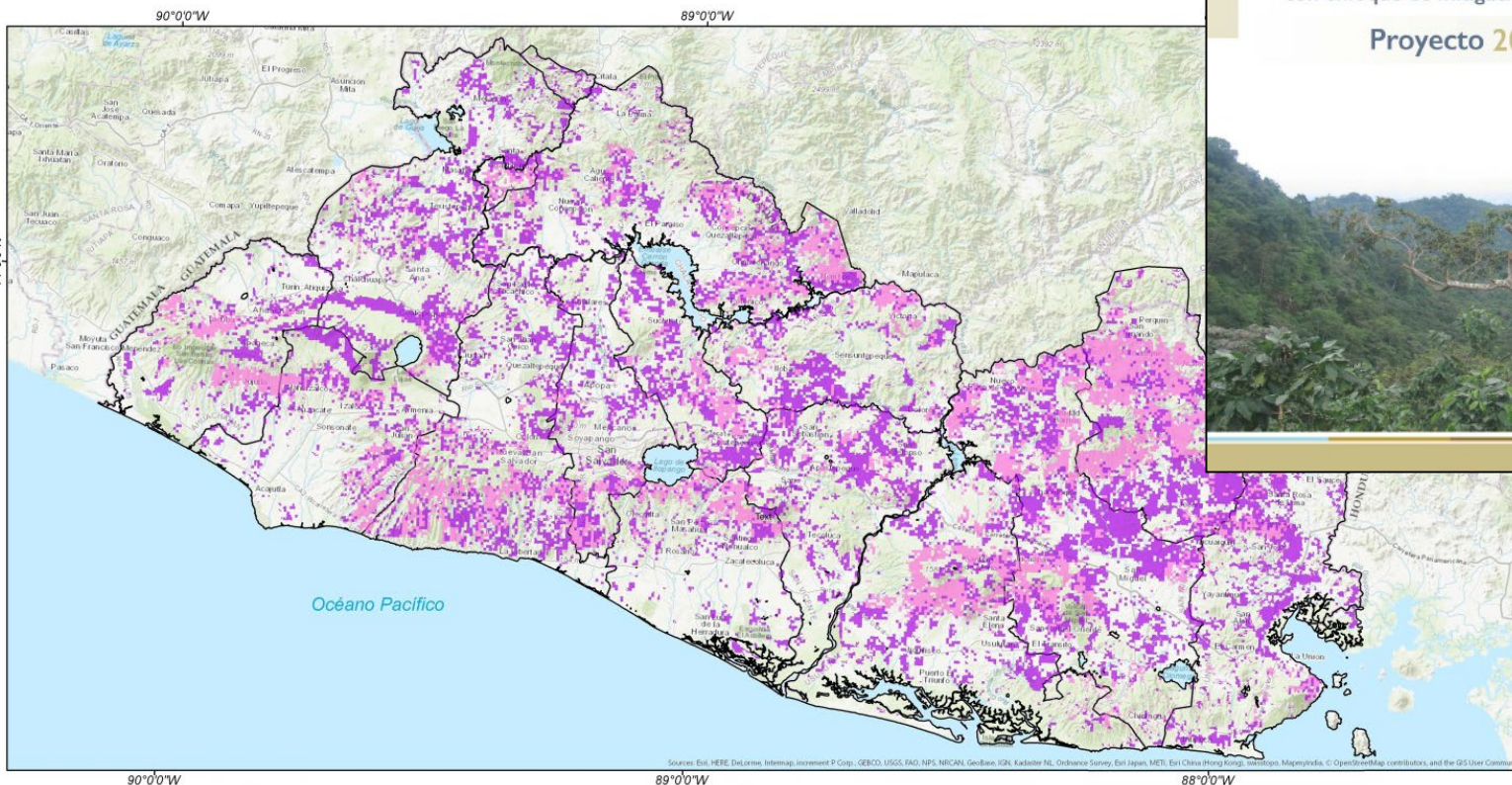
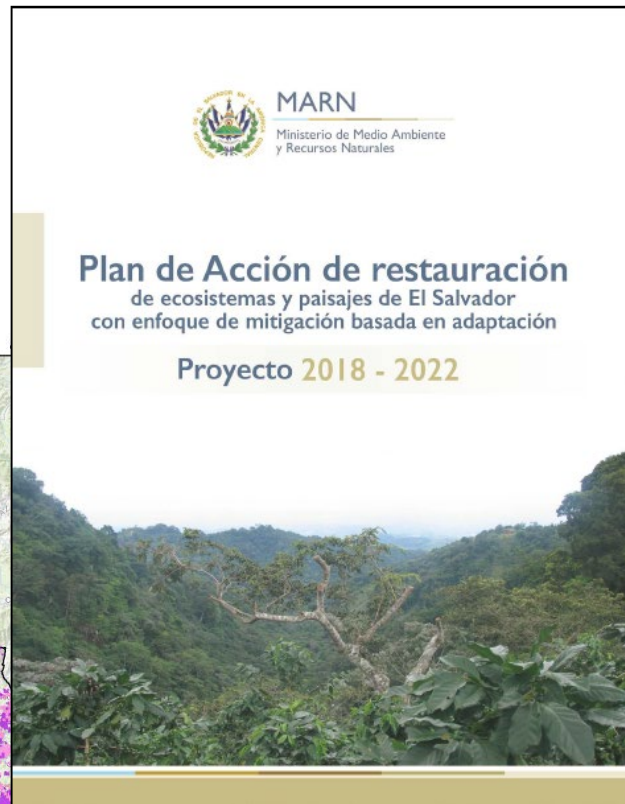


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**Prioritization of all FLR actions according to production and consumption of fuelwood**

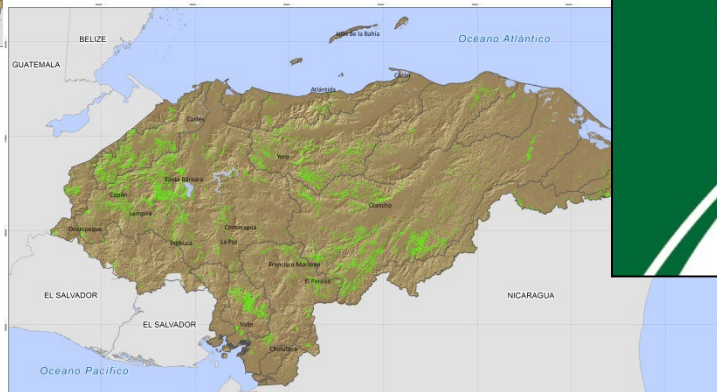
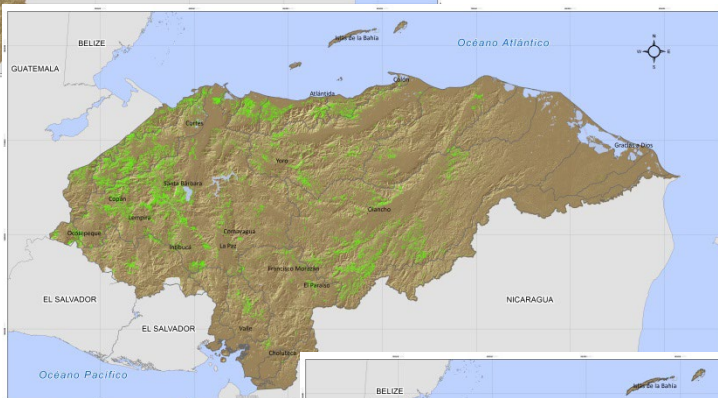
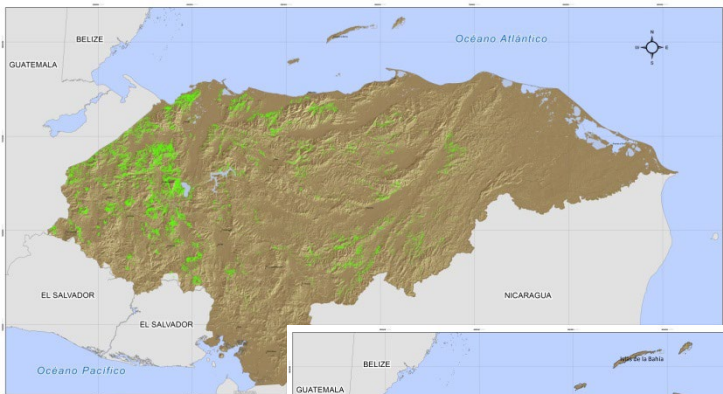
# El Salvador's restoration action plan



- Highest priority
- High priority
- Limits departments

Sources: GSI, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapboxIndia, © OpenStreetMap contributors, and the GIS User Community

# Honduras program to recover ecosystem goods and services



**“PROGRAMA NACIONAL DE RECUPERACIÓN DE LOS BIENES Y SERVICIOS DE ECOSISTEMAS DEGRADADOS”**  
**2018 – 2028**

**Mi Ambiente+**

SECRETARÍA DE MEDIO AMBIENTE Y ENERGÍA

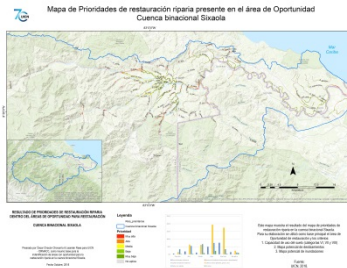
# Further implementation

- Input for new – local – projects:

➤ GCF, GEF, ...



- Local analyses





- New policies, e.g. development of agroforestry incentives in Honduras

# BC Barometer of Progress



## BONN CHALLENGE

## Succes Factors & Results & Benefits


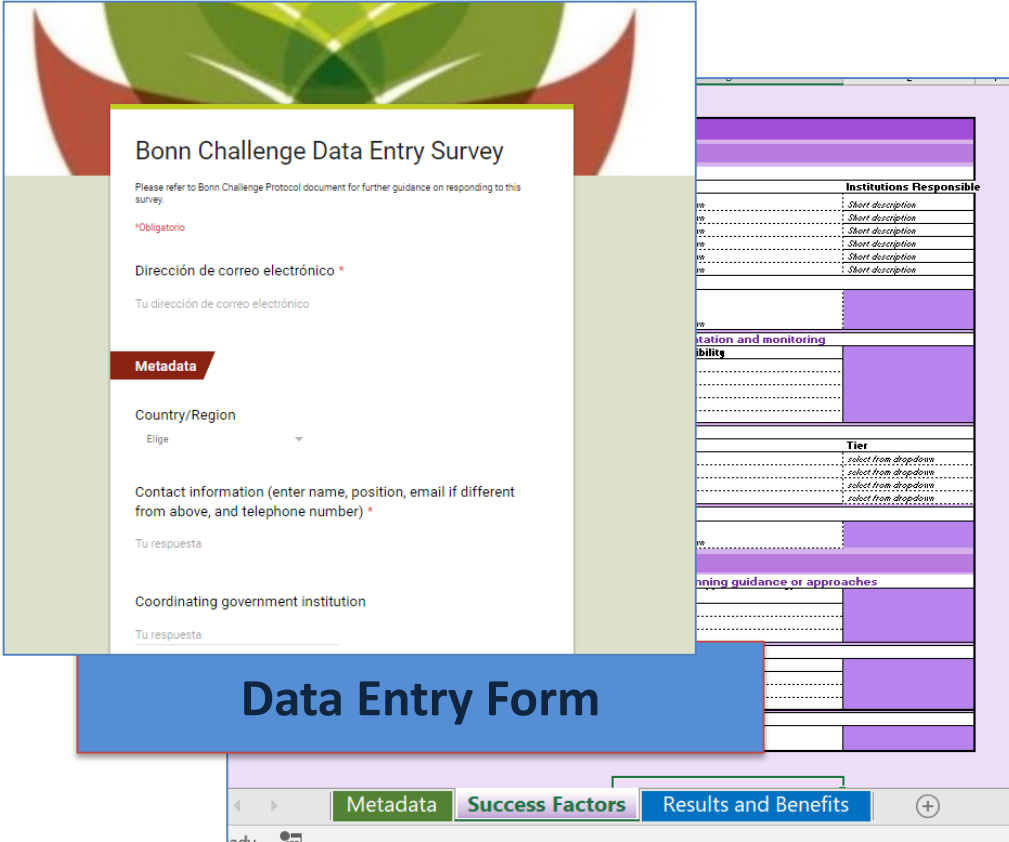
**Bonn Challenge Barometer - Progress Tracking Protocol**  
April 2018

**Introduction**  
The Bonn Challenge (BC) is a global effort to bring 150 million hectares of deforested or degraded land into restoration by 2020, and 350 million hectares by 2030. To meet this ambitious target, over 45 countries, states, and civil society organizations have made individual BC Commitments to contribute to this goal since 2011. Accordingly, many pledgers have taken significant steps toward enabling and implementing forest landscape restoration (FLR) efforts.

The Bonn Challenge Barometer of Progress Tracking Protocol (hereafter referred to as the Barometer) will support pledgers in evaluating progress toward meeting BC Commitments by offering a framework to consistently and systematically take stock of hectares brought under restoration, as well as a defined set of political, regulatory, financial, and technical components deemed important for achieving successful landscape restoration. This document offers guidance for completing the accompanying Barometer Data Form.

The Barometer has been developed under a set of core guiding principles to maximize its effectiveness and utility. These are briefly outlined below.

**Flexibility**  
To date, 45 pledgers have made BC Commitments, reflecting a vast range of geographies, political and socioeconomic contexts, biophysical conditions, resources, capacity, and motivations. As such, each pledger contends with a unique set of limitations in implementing and reporting on FLR progress. Pledgers might face challenges associated with implementing and monitoring FLR over large or diverse geographies, gaps in capacity and resources, or poor coordination between actors. Some pledgers will be able to draw from a wealth of data and existing evaluations whereas others will face significant limitations in the availability of information on FLR.

**Bonn Challenge Data Entry Survey**

Please refer to Bonn Challenge Protocol document for further guidance on responding to this survey.

**\*Obligatorio**

Dirección de correo electrónico \*

Tu dirección de correo electrónico

**Metadata**

Country/Region  
Elige

Contact information (enter name, position, email if different from above, and telephone number) \*

Tu respuesta

Coordinating government institution  
Tu respuesta

**Institutions Responsible**

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**Station and monitoring ability**

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**Guidance or approaches**

**Data Entry Form**

Metadata Success Factors Results and Benefits

## Guidance and Resources

Pilots in Brazil, El Salvador, Mexico, Ruanda & Sri Lanka



# Thank you

**Bonn Challenge:** [bonnchallenge.org](http://bonnchallenge.org)

**InfoFLR:** [infoflr.org](http://infoflr.org)

**IUCN FLR:** [iucn.org/flr](http://iucn.org/flr)

**ROAM:** [iucn.org/roam](http://iucn.org/roam)