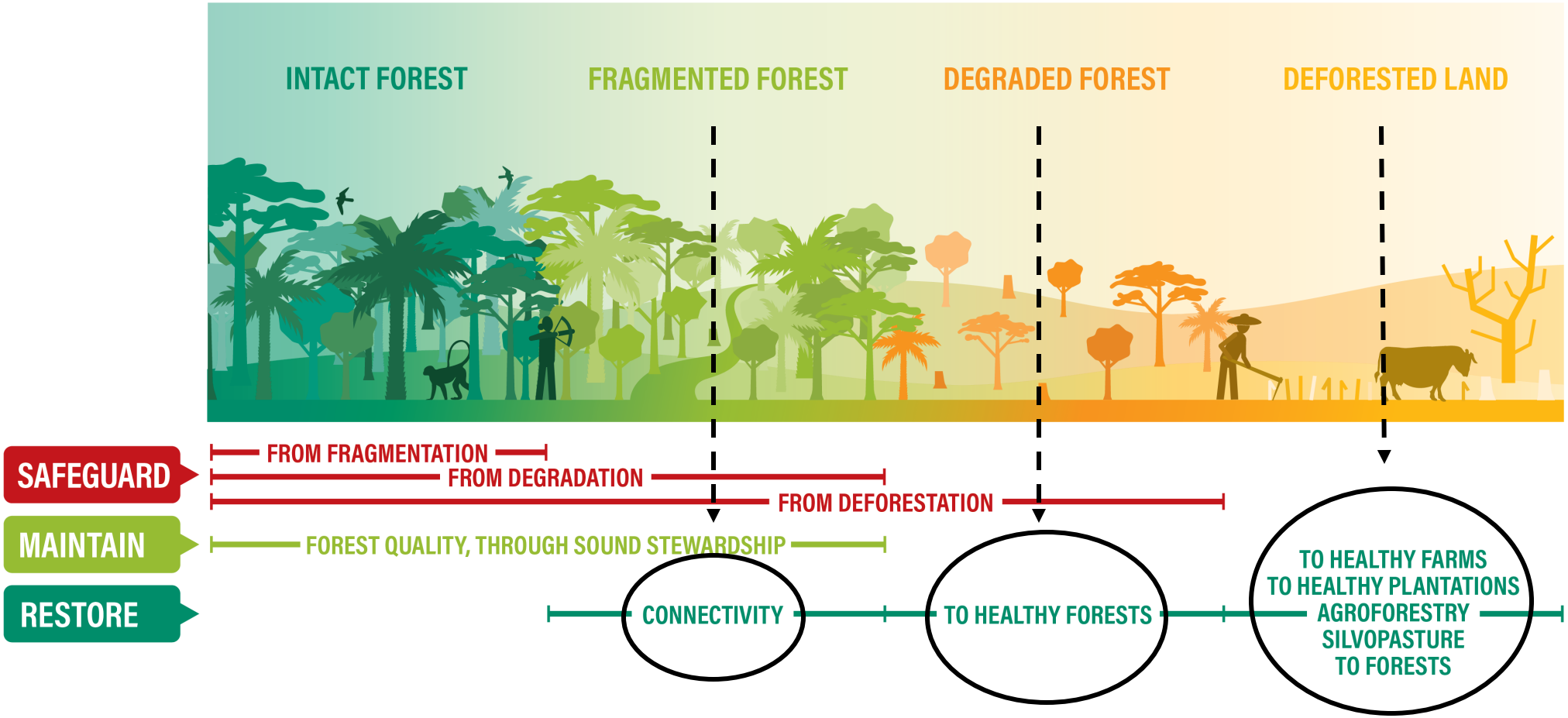
WORLD RESOURCES INSTITUTE

Research Innovation to Support FLR in the Tropics

Satrio Adi Wicaksono

Photo Credits: WRI

WRI's Global Restoration Initiative



How does WRI use ROAM?

R O A M A T W R I

- ROAM is a foundational aspect of WRI's technical support on restoration
- ROAM is not the goal, rather it's a starting point.

  It's a useful framework for engaging stakeholders in an initial assessment of restoration opportunity; it's a framework to identify both priority landscapes for implementation and the range of stakeholders who must be involved.

- End goal of ROAM is to **encourage investments** in restoration
- Driven by **two regional initiatives**: Initiative 20x20 & AFR 100

A Broad-Based Restoration Movement

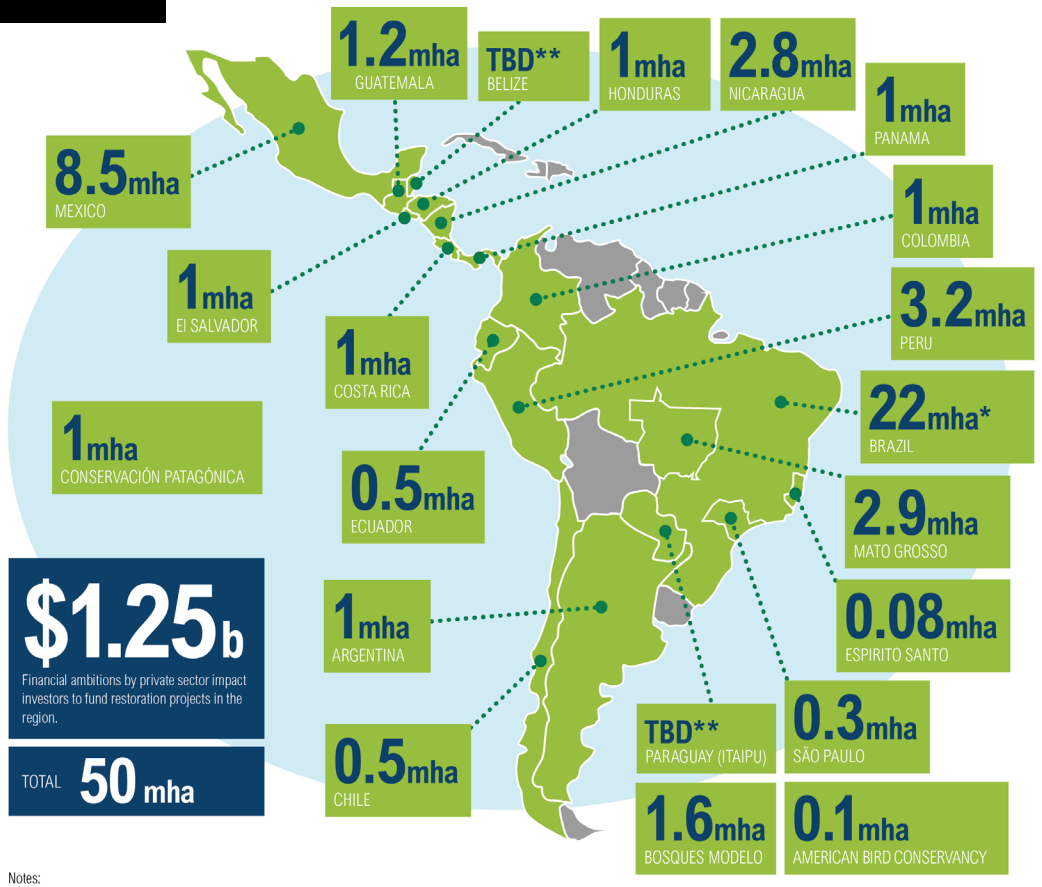
afr100

Initiative 20x20

$1B in development finance

$481M private sector commitment

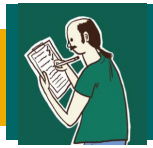
*formulating commitment



Notes:
*Goals to be accomplished by 2030
**Commitment to define a national restoration strategy

What is ROAM?

- √ ❑ *Stakeholder engagement*
- √ ❑ *Geospatial mapping*
- √ ❑ *Economic analysis*
- √ ❑ *Financial analysis*
- √ ❑ *Enabling conditions (the Diagnostic)*
- √ ❑ *Carbon analysis*

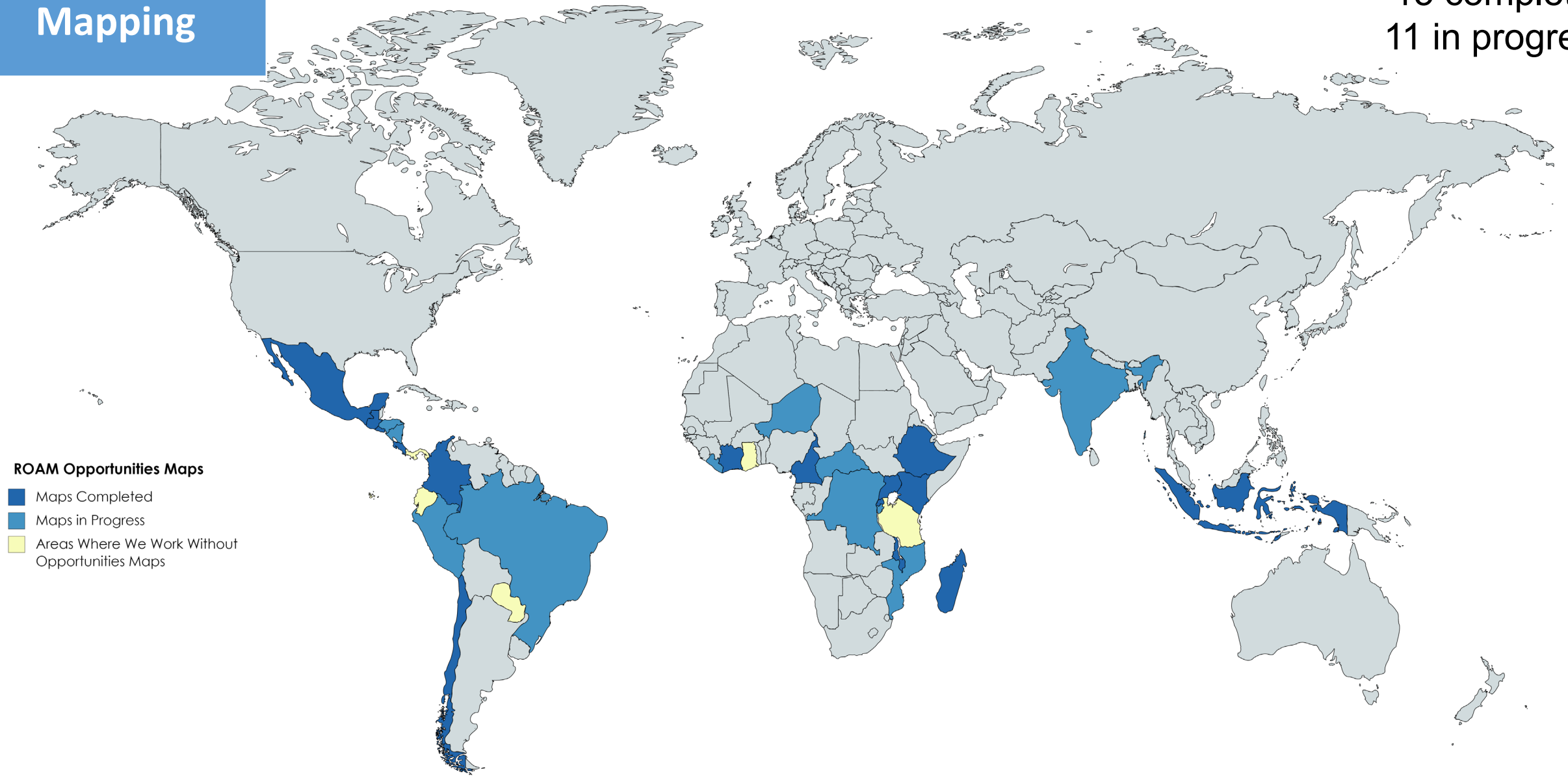


1

2

Mapping

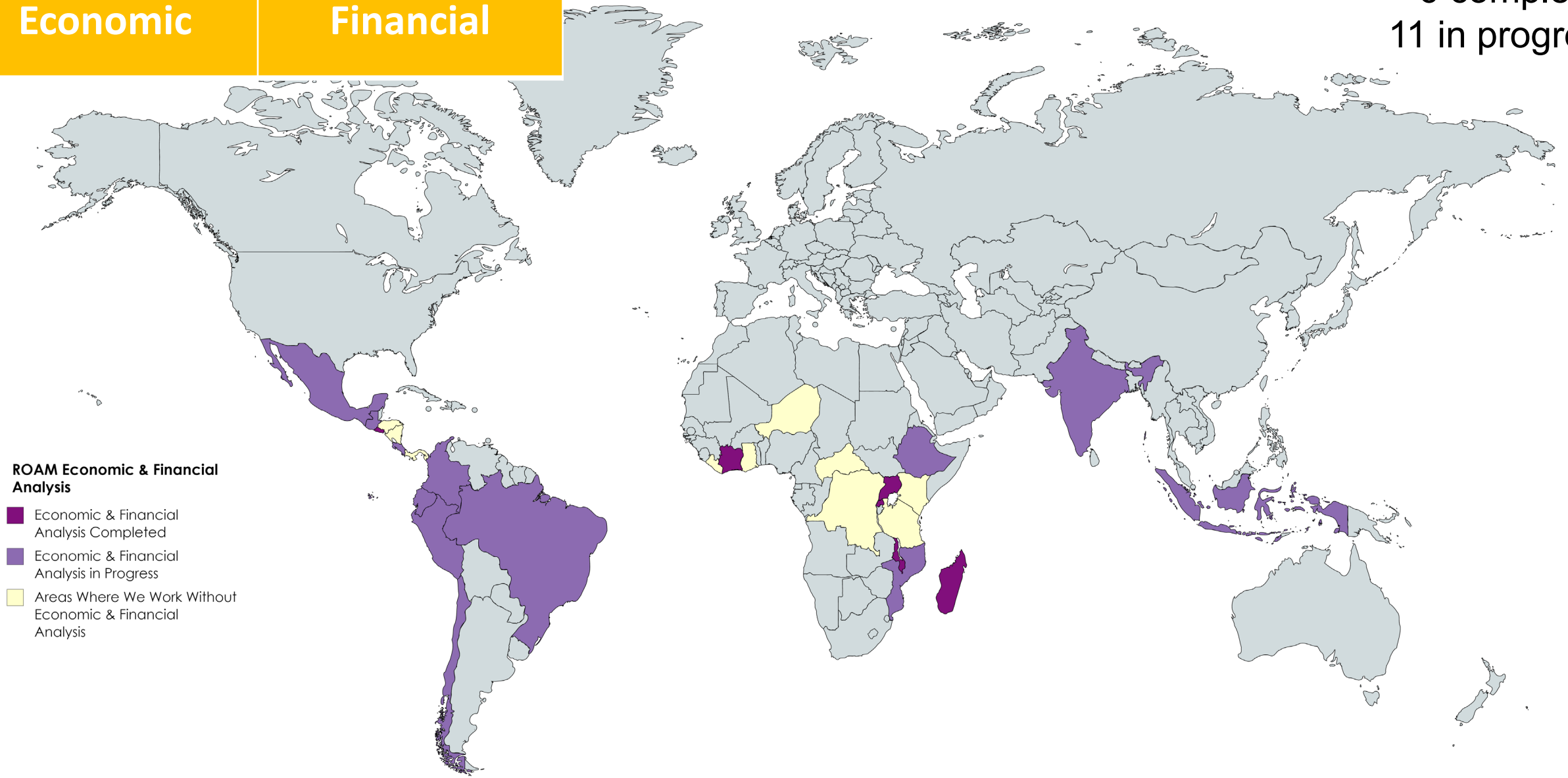
15 completed
11 in progress



Updated as of August 2017.

Economic | Financial

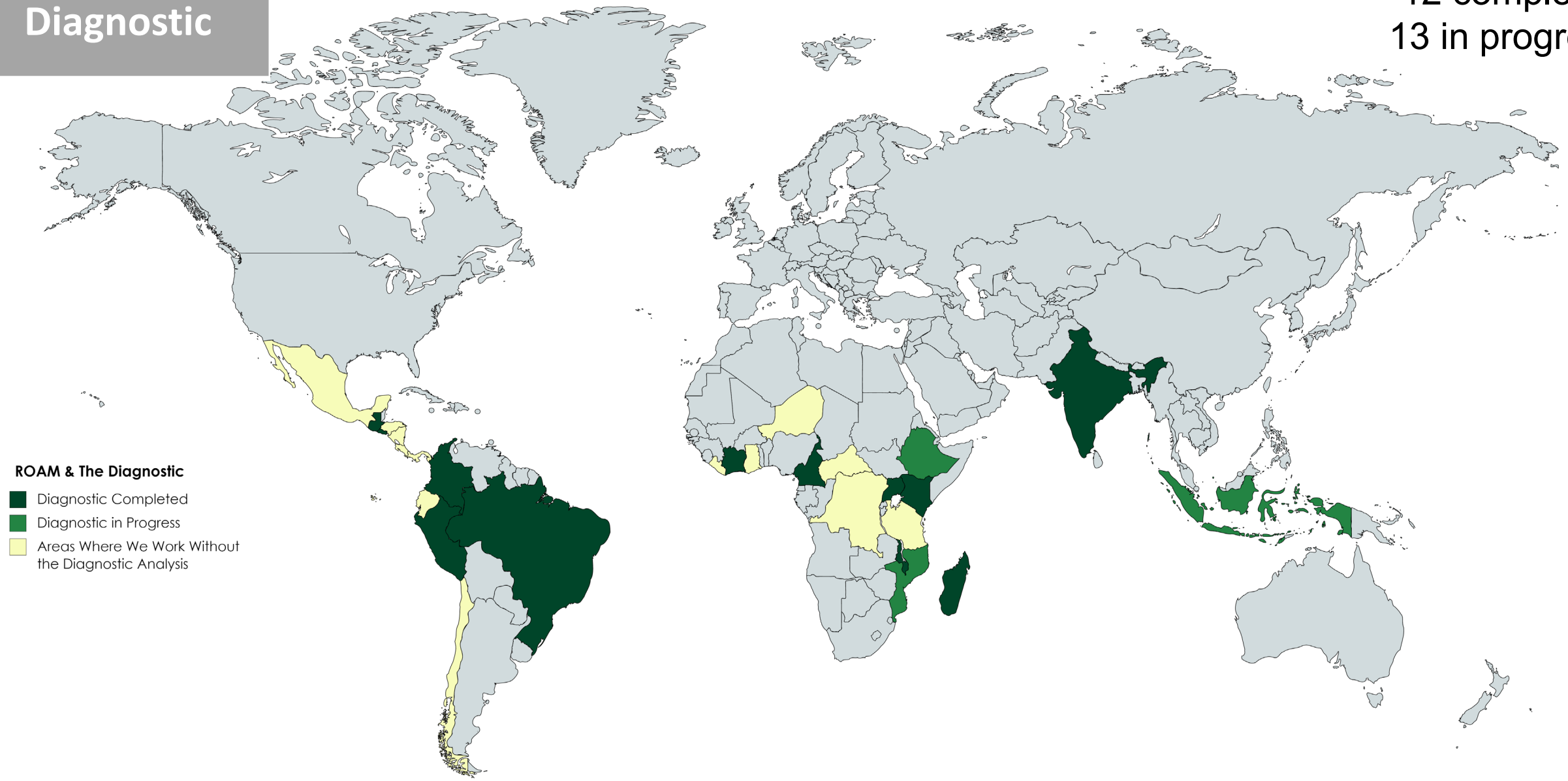
6 completed
11 in progress



Updated as of August 2017.

Diagnostic

12 completed
13 in progress



Updated as of August 2017.

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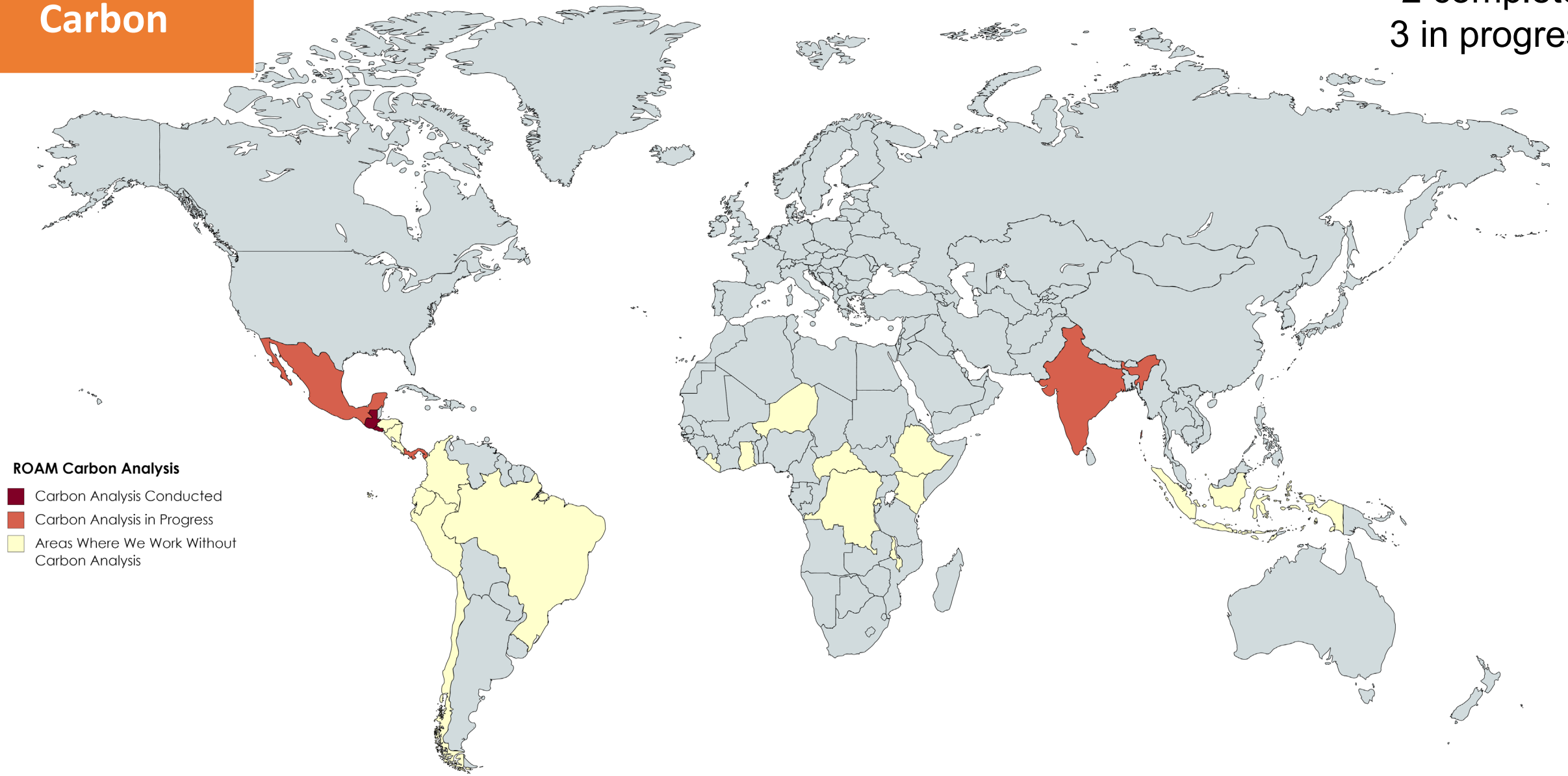
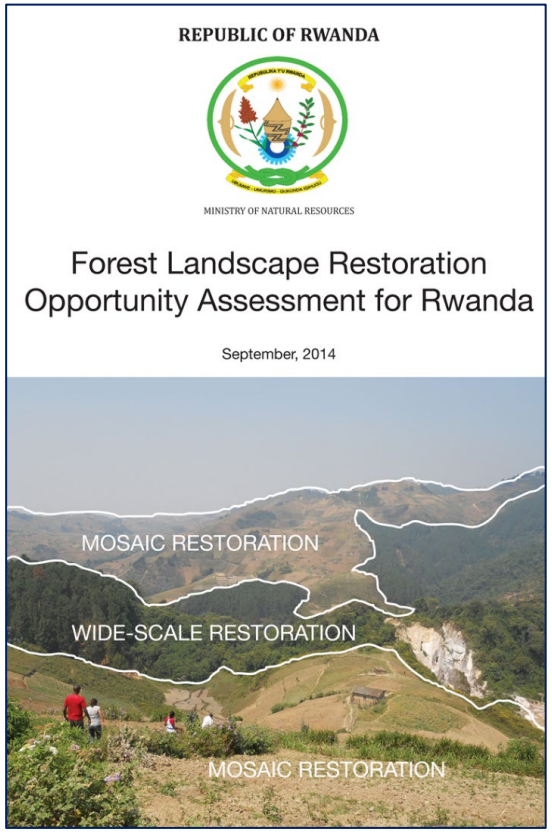
Carbon

2 completed
3 in progress



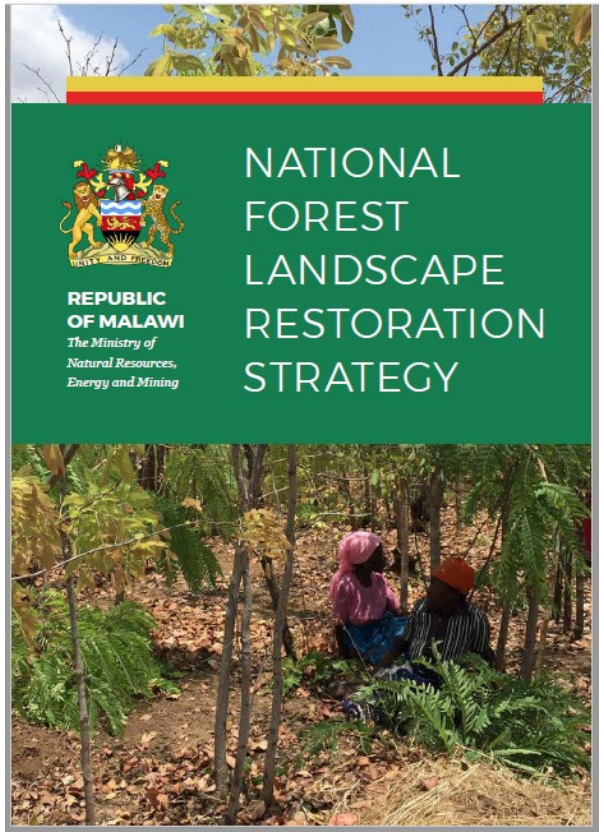
Updated as of August 2017.

ROAM as basis for National Strategies



RWANDA: 2014

BRAZIL: 2014



MALAWI: 2017

Mapping the social landscape

1. MAKE a commitment to map your social landscapes around a specific goal or activity.

2. ANALYZE the social landscape maps to determine what works and what could be improved.

3. WORK with groups within the social landscape to identify, agree upon, and implement changes.

4. REPEAT, or make a commitment to evaluate changes in the social landscape periodically.

ROAM for Tropical Peatland

Objective

To provide relevant analytical input to national/subnational policymaking on peatland restoration, especially to support the development of peatland restoration plans and their implementation

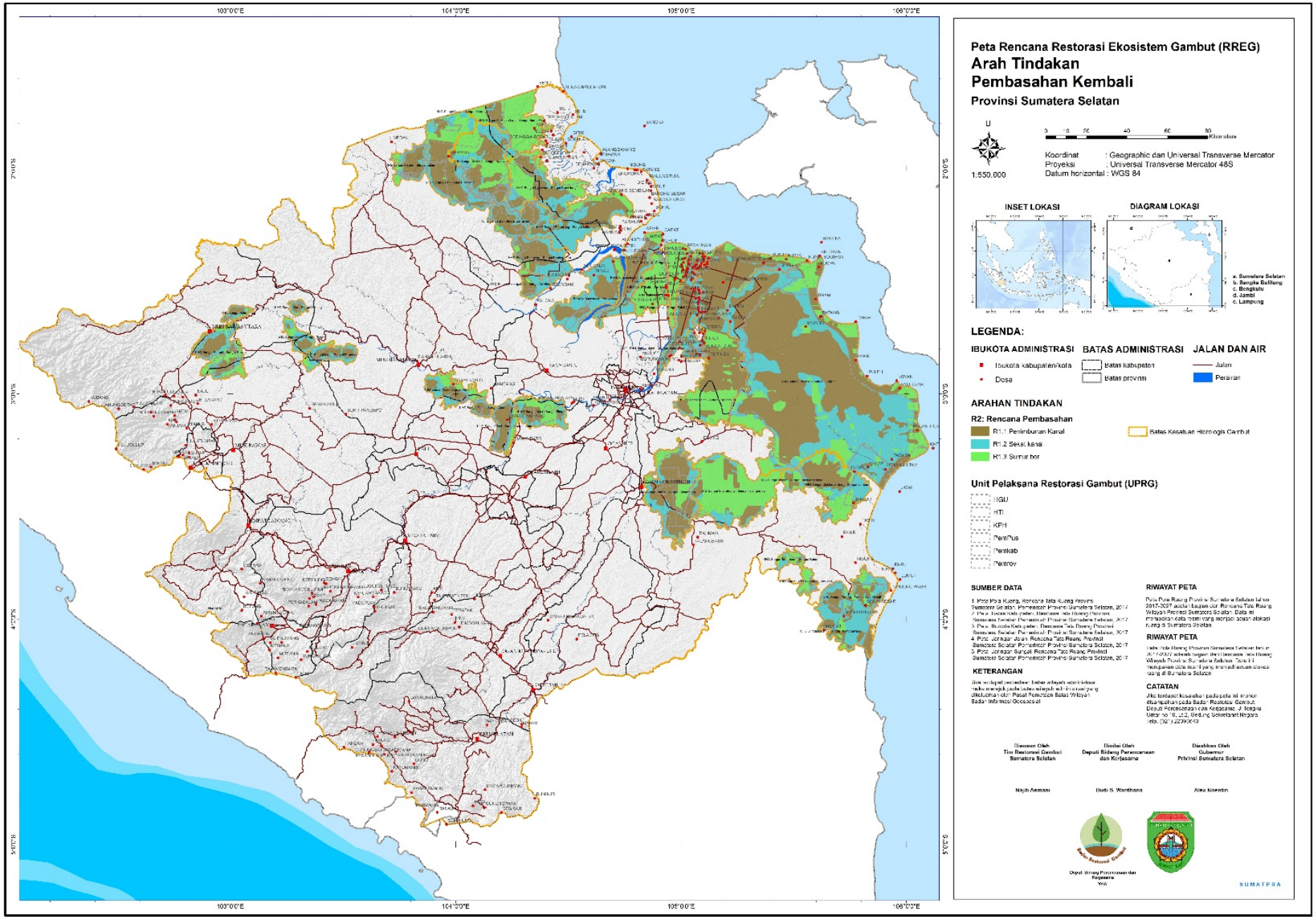
Scope

Focusing on SE Asian peatlands, although it is possible to expand the scope

Users

- Government officials commissioning assessment on peatland restoration opportunities
- Assessors who need to assess peatland restoration opportunities
- Experts or stakeholders at national or regional level who need to know what peatland restoration opportunities entail

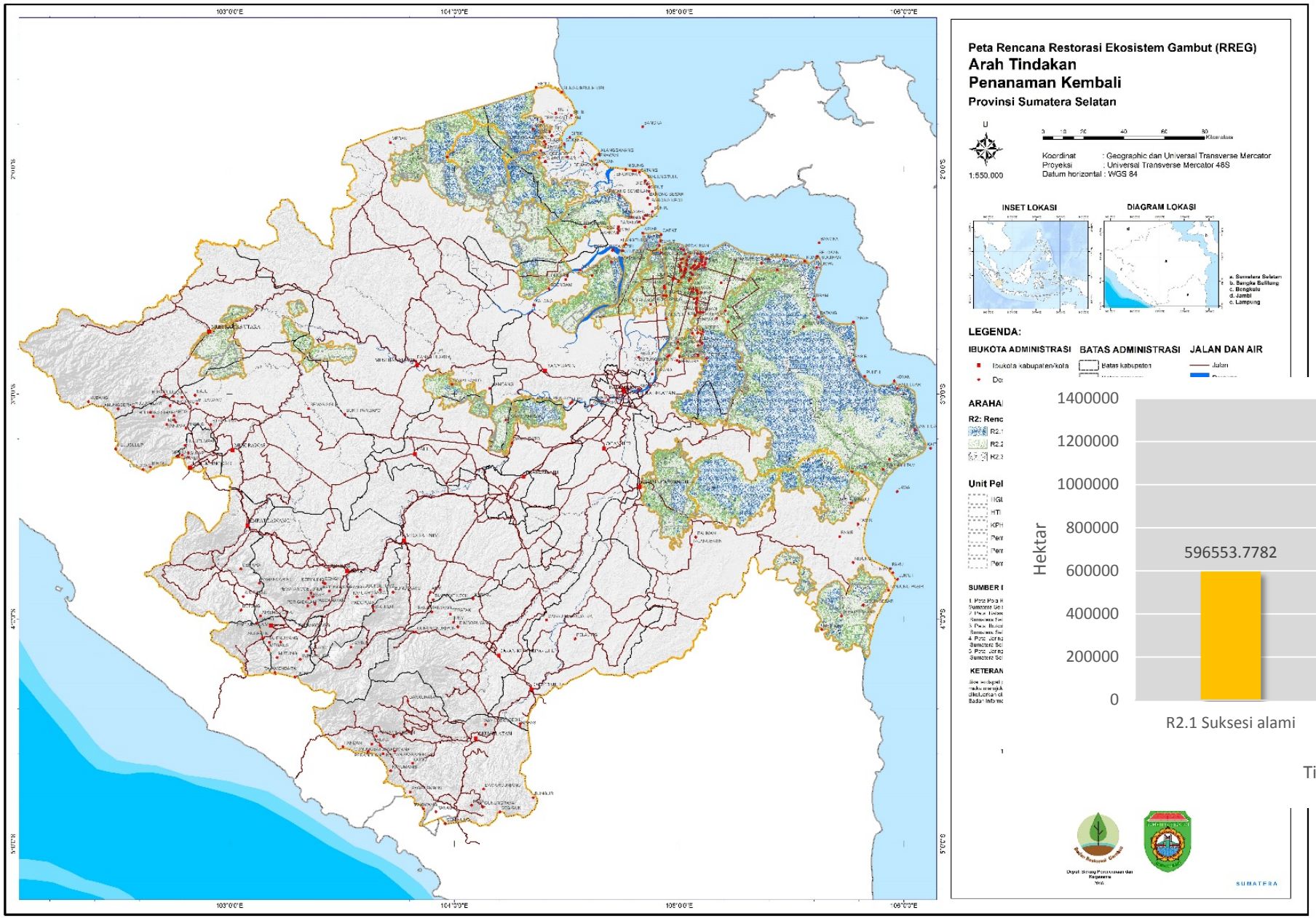
Provincial-level Peatland Restoration

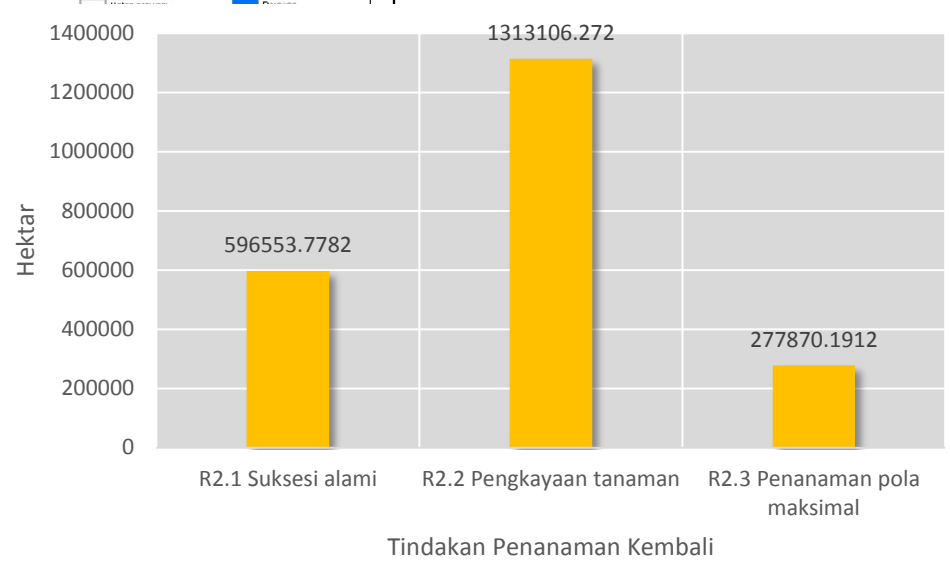


South Sumatra – areas to be rewetted

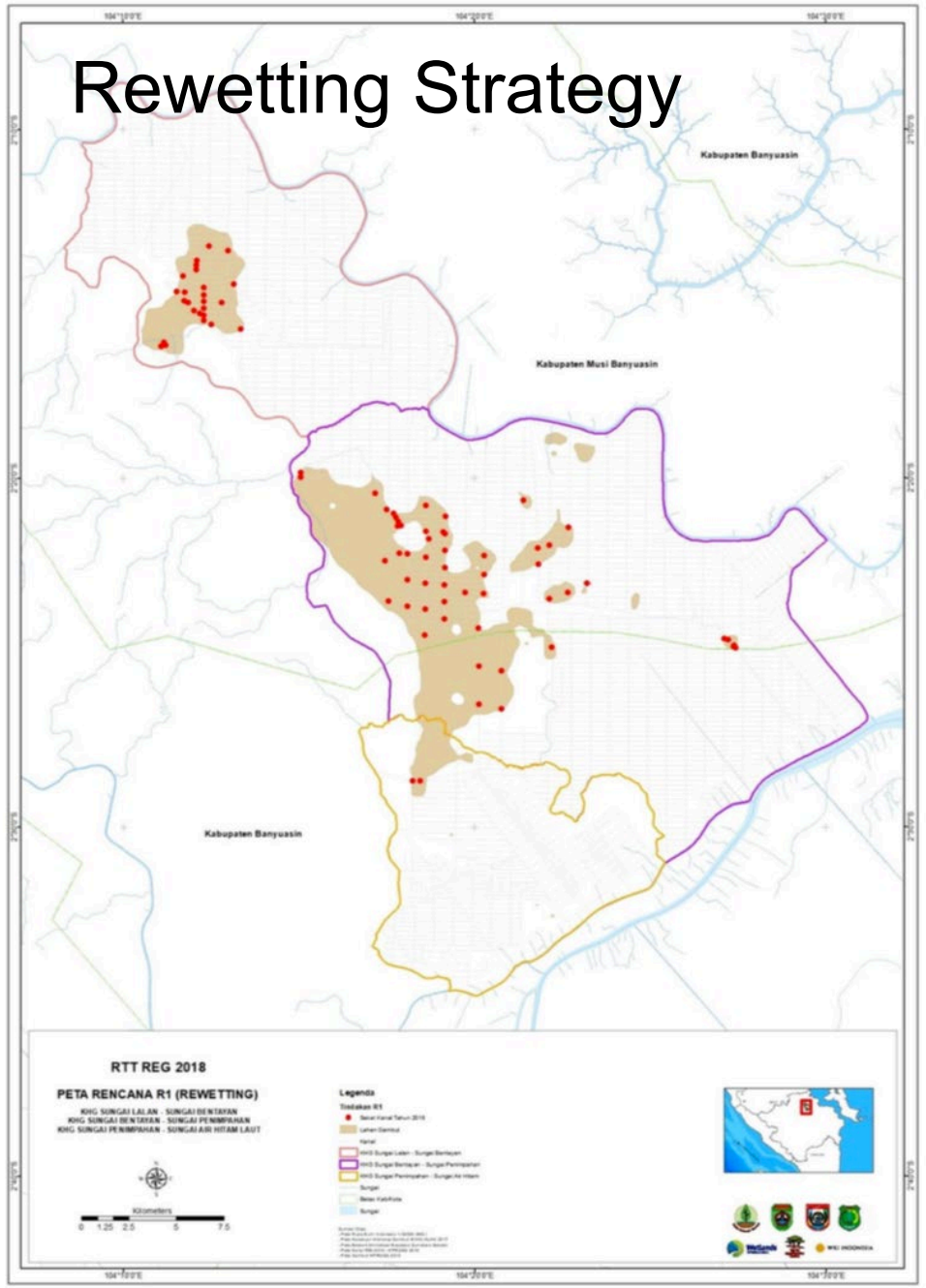
Provincial-level Peatland Restoration

South Sumatra – areas to be revegetated



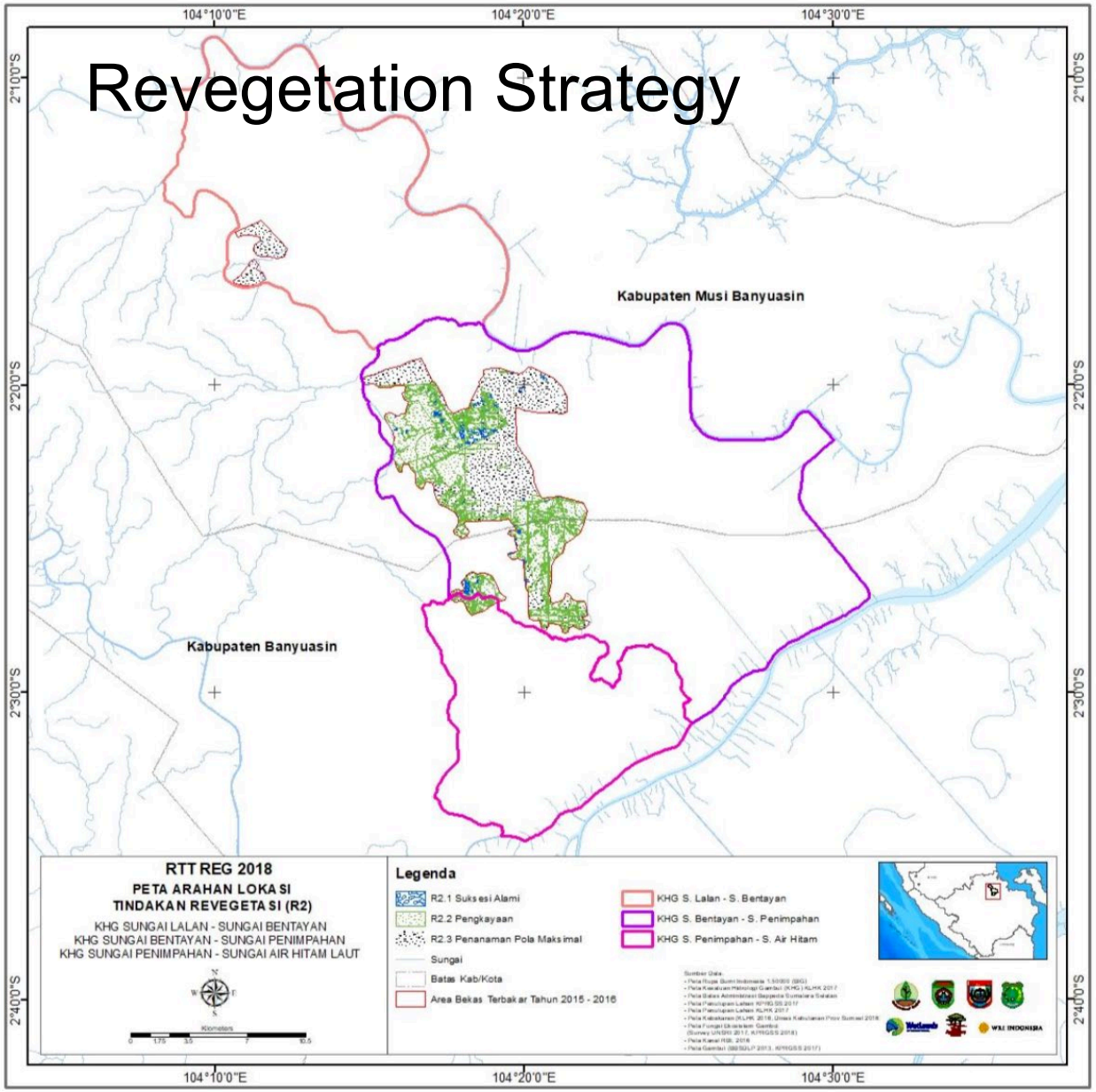


Rewetting Strategy

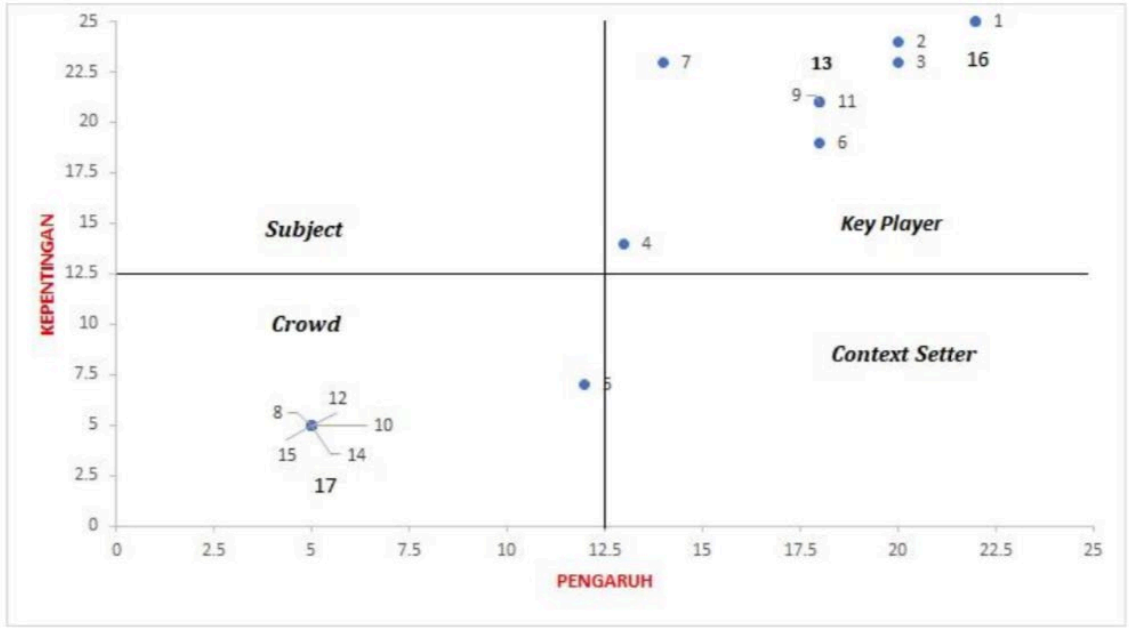


Gambar 37. Rencana penempatan titik-titik sekat kanal di areal target pembasahan kembali (R1-Rewetting)
(Peta A0 tersedia pada lampiran)

Revegetation Strategy

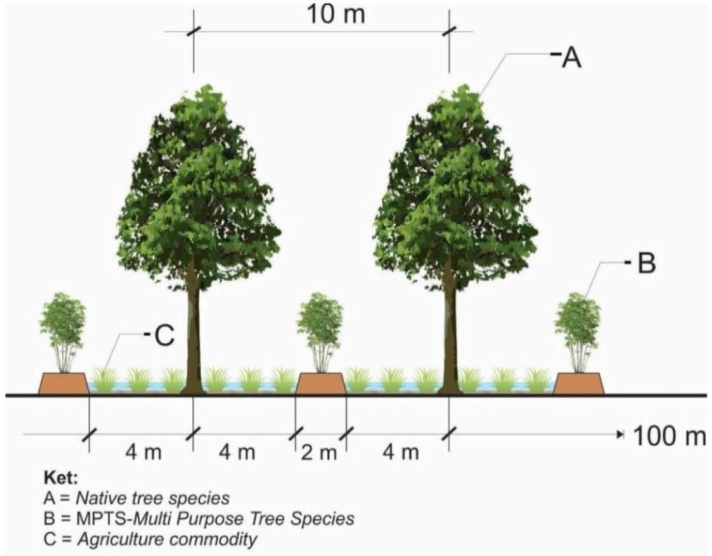


Livelihood Revitalization Strategy



1. Pemerintahan Desa	9. Koperasi Usaha Bersama
2. BPD	10. Pemuda Muhammadiyah
3. LPM	11. Kelompok Simpan Pinjam
4. PKK	12. Posyandu
5. Karang Taruna	13. Kelompok Peternak Sapi
6. Kelompok Tani	14. Pengajian Al Hikmah
7. BUMDES	15. Banser
8. Pemuda Mandiri	16. POKMAS BRG
	17. Tengkulak

Gambar 56. *Matriks Pemetaan Stakeholder di Desa Karang Mukti yang berkaitan dengan kegiatan restorasi*



Gambar 78*. Desain demplot agroforestry*

Tabel 49. Kalender musiman penduduk Desa Karang Mukti

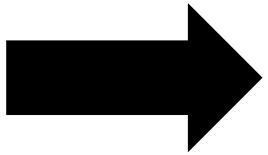
Kategori	JAN	FEB	MAR	APR	MEI	JUN	JUL	AGU	SEP	OKT	NOV	DES
Musim												
Hama Tikus	penanaman & pemeliharaan	padi siap panen		padi siap panen					penanaman & pemeliharaan		penanaman & pemeliharaan	
Kelapa Sawit	panen tbs setiap 2 minggu			panen tbs setiap 2 minggu							panen tbs setiap 2 minggu	
Kelapa	perawatan		panen	perawatan		panen	perawatan		panen	perawatan	perawatan	panen
Bibit Kelapa		penanaman bibit kelapa		penanaman bibit kelapa		penanaman bibit kelapa						

Sumber: Laporan Pemetaan Sosial Desa Karang Mukti, 2017

MANGROVE RESTORATION WORKSHOP WAS HELD TO COLLECT STORIES DIRECTLY FROM EXPERTS AND GRASSROOTS ORGANIZATIONS, PART OF DEVELOPMENT OF ROAM FOR MANGROVES

2
days of workshop in 3-4 Oct 2018 in Tangerang, Banten

54
experts and practitioners on mangrove restoration

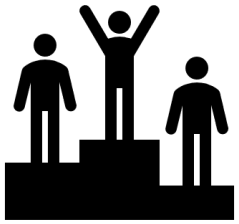


4
motivations to restore have been identified (benefits, awareness, crisis events, legal requirements)

5
key success factors are found in most of restoration projects

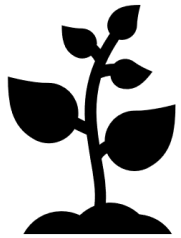
5
bottom-up recommendations have been made for Indonesia Blue Carbon Strategy Framework

WORKSHOP PARTICIPANTS HAVE IDENTIFIED TOP FIVE KEY FACTORS FROM SUCCESSFUL MANGROVE RESTORATION PROJECTS



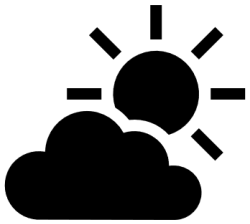
Local Champion

could catalyze mangrove restoration and ensure its sustainability



Native Seedlings Availability

are among critical elements of mangrove restoration from technical point of view



Physical Environment Suitability

determines the survival rate of the planted mangrove trees

Capacity

to decide restoration location can ensure that mangroves are planted in a suitable landscape

Tenurial Security

should be ensured before implementing a mangrove restoration project

THIS MANGROVE RESTORATION WORKSHOP HAS IDENTIFIED TECHNICAL, SOCIETAL, AND INSTITUTIONAL STRATEGIES FOR MANGROVE RESTORATION

Cross-Institutional Consolidation

is required, especially to avoid overlap between central and grassroots initiative and to improve coordination

Tenurial Conflict Transformation

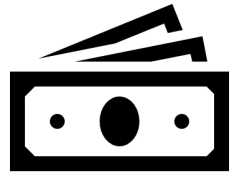
approach should be applied as many degraded mangrove areas are used as aquaculture ponds

Local Knowledge

such as customary arrangement on resource extraction and species identification could yield in a sustainable mangrove restoration

Alternative Livelihood

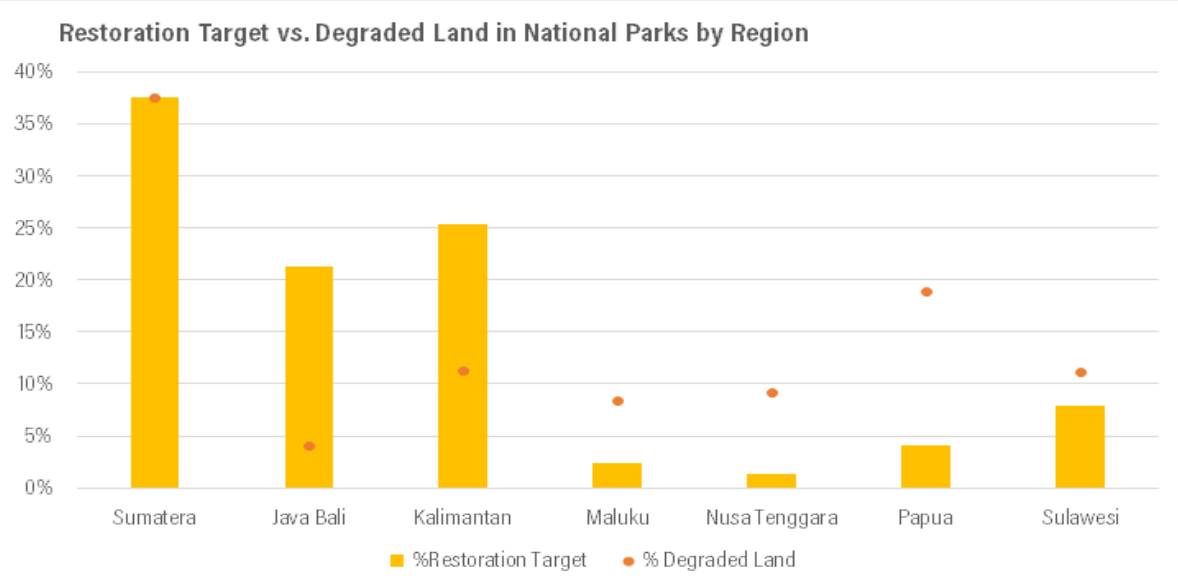
for communities should be designed when restoring mangrove due to communities' dependence on the area

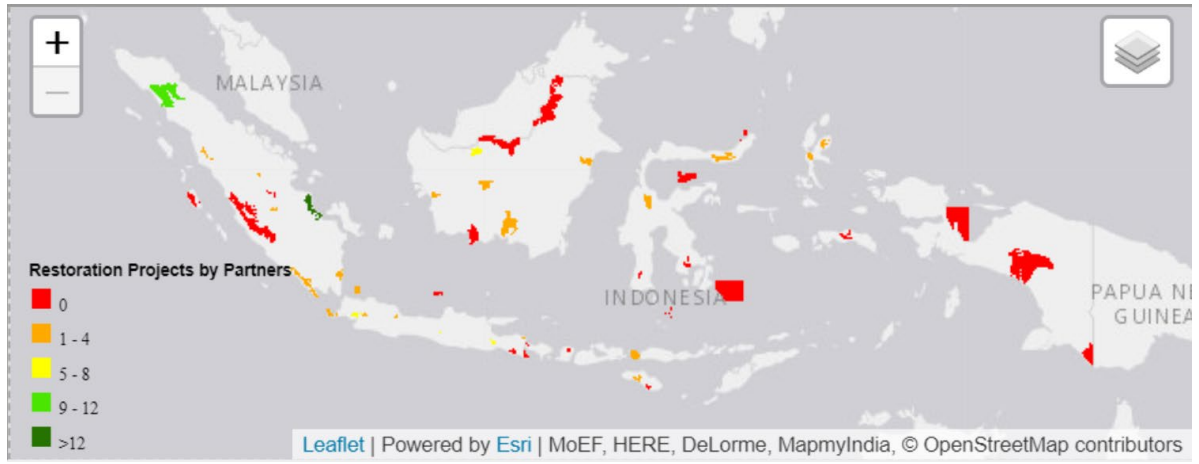


Sustainable Financing

strategies could be developed to incentivize mangrove restoration and attract more actors to invest in it

INDONESIA SEES TWO MILLION HECTARES OF DEGRADED CONSERVATION AREAS AND THE RESTORATION TARGET WILL ONLY COVER 5% OF THEM





- **100,000 hectares of degraded conservation areas** are to be restored by 2019, but it largely overlooked degraded areas in eastern Indonesia
- **The lack of budget allocation** keeps restoration achievement low and **restoration partnership** could fill the gap

- **Participatory restoration** involving public, private and communities is pursued by Indonesian government
- **However, only 90 restoration partnerships** are identified, but concentrated in western Indonesia

PARTICIPATORY RESTORATION IN GUNUNG LEUSER NATIONAL PARK SHOWS THAT INCENTIVES COULD DRIVE COMMUNITIES TO PARTICIPATE IN RESTORING DEGRADED FOREST

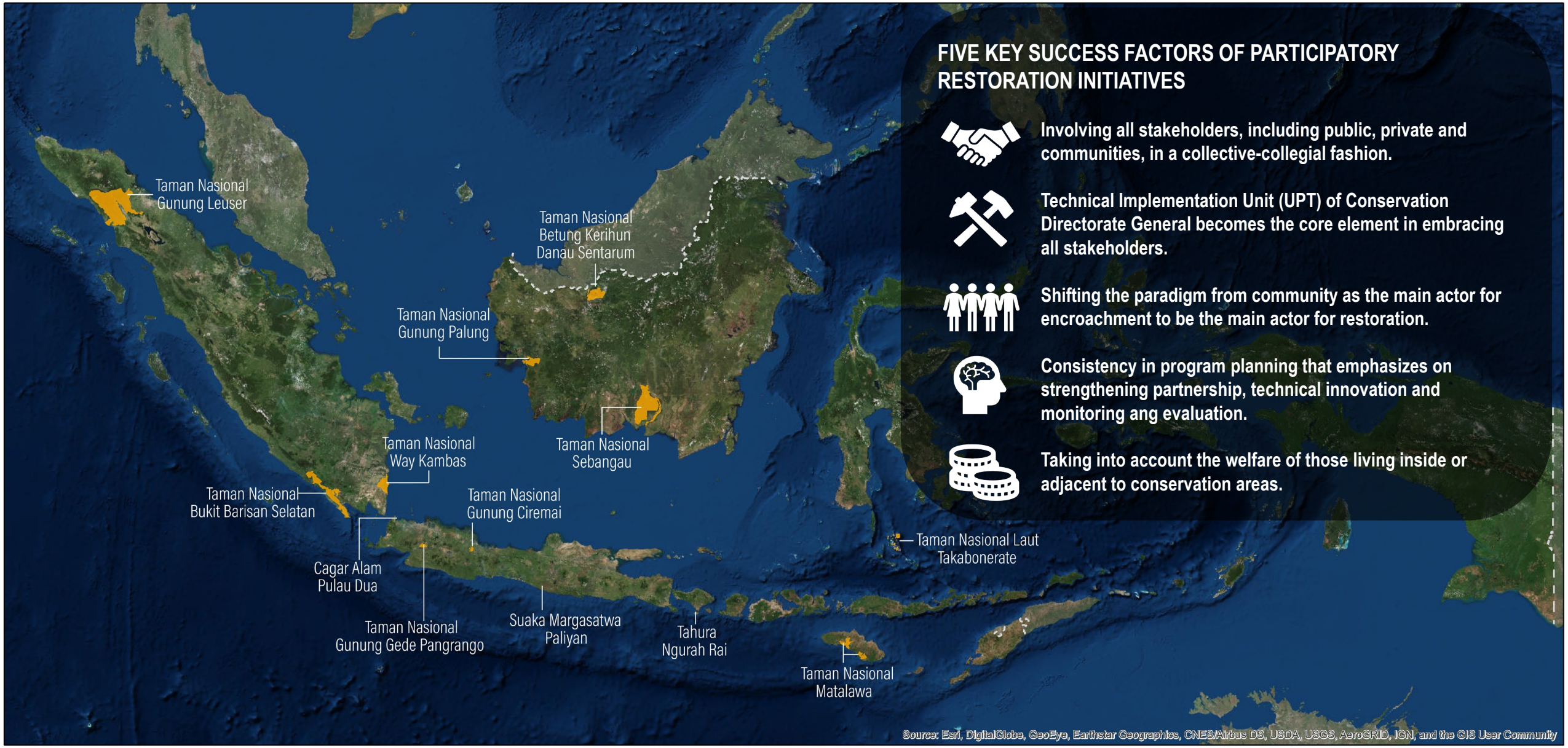
Restoration Participation	Coefficient	S.E	Odds Ratio
Perceived benefits	1.453*	.809	4.278*
Environmental motivation	1.104	1.032	3.017
Perceived costs	-.519	.502	.595
Gender	1.378*	.788	3.967*
Household role	-3.573***	1.004	.0281***
Existence of customary rule	2.076**	1.035	7.976**
Restoration information	3.435***	1.039	31.032***
Constant	-11.342**	4.665	.0000**
Sample size	111		

*/*** denotes significance at the 10%5%/1% level

HIGHLIGHTS

- **Participatory restoration** could yield a more sustainable result and it requires **incentives** for locals
- In Gunung Leuser National Park, **communities' participation in restoration are driven by benefits**
- These benefits include: **wildlife conflict and drought prevention, water provisioning, and livelihood**
- Since human-forest interaction is weak in Gunung Leuser, **raising their awareness is critical** for successful restoration initiative

MOEF AND WRI INDONESIA HAVE PUBLISHED A BOOK ON PARTICIPATORY RESTORATION IN PROTECTED AREAS



WRI INDONESIA

Why monitor?

- To **understand the techniques and practices** that most effectively restore and protect the land, allowing better adaptive management and more benefits to flow to communities *(e.g., you can only manage what you measure)*

- To **unlock investments** by donors, investors, and stakeholders *(e.g., Pay-for-Performance)*

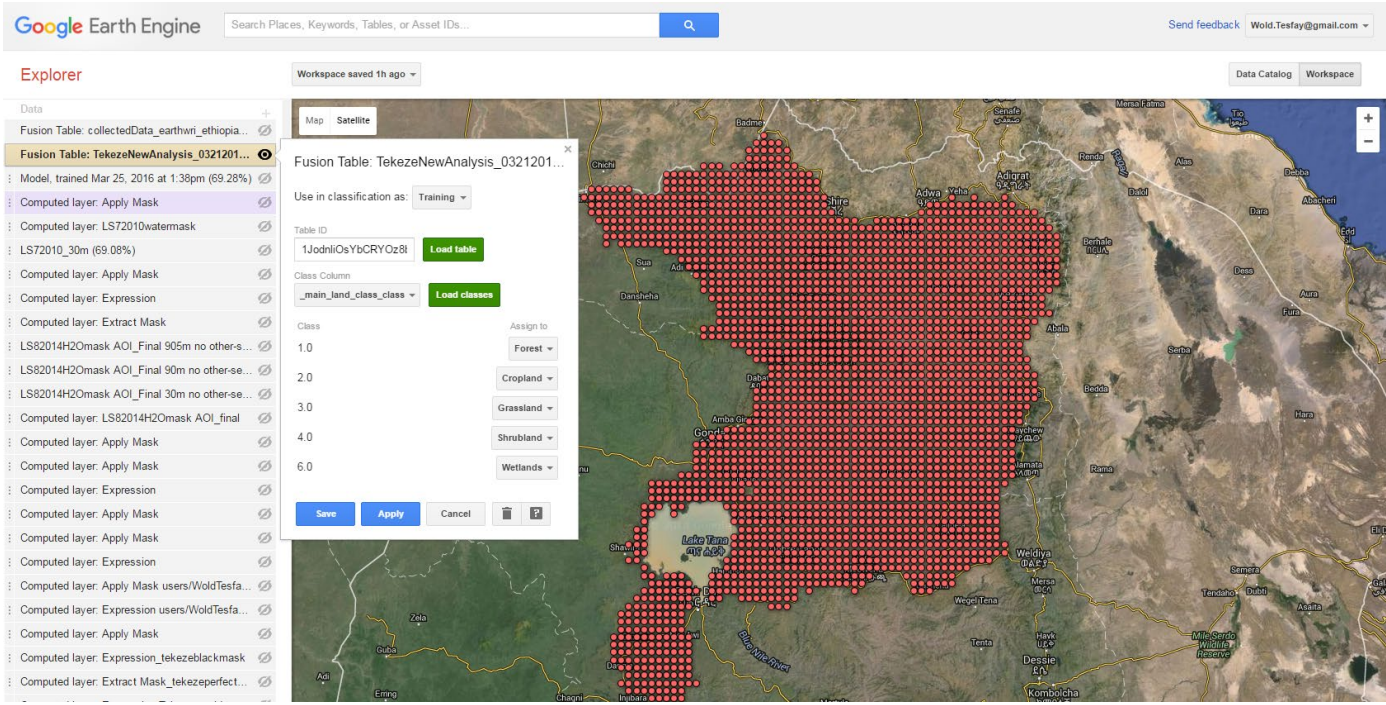
- To **inspire replication** by providing independent evidence of success to peer institutions, investors, local and national governments, and international bodies

- To **create greater transparency** of progress, achievements, and impact

Measuring biophysical indicators

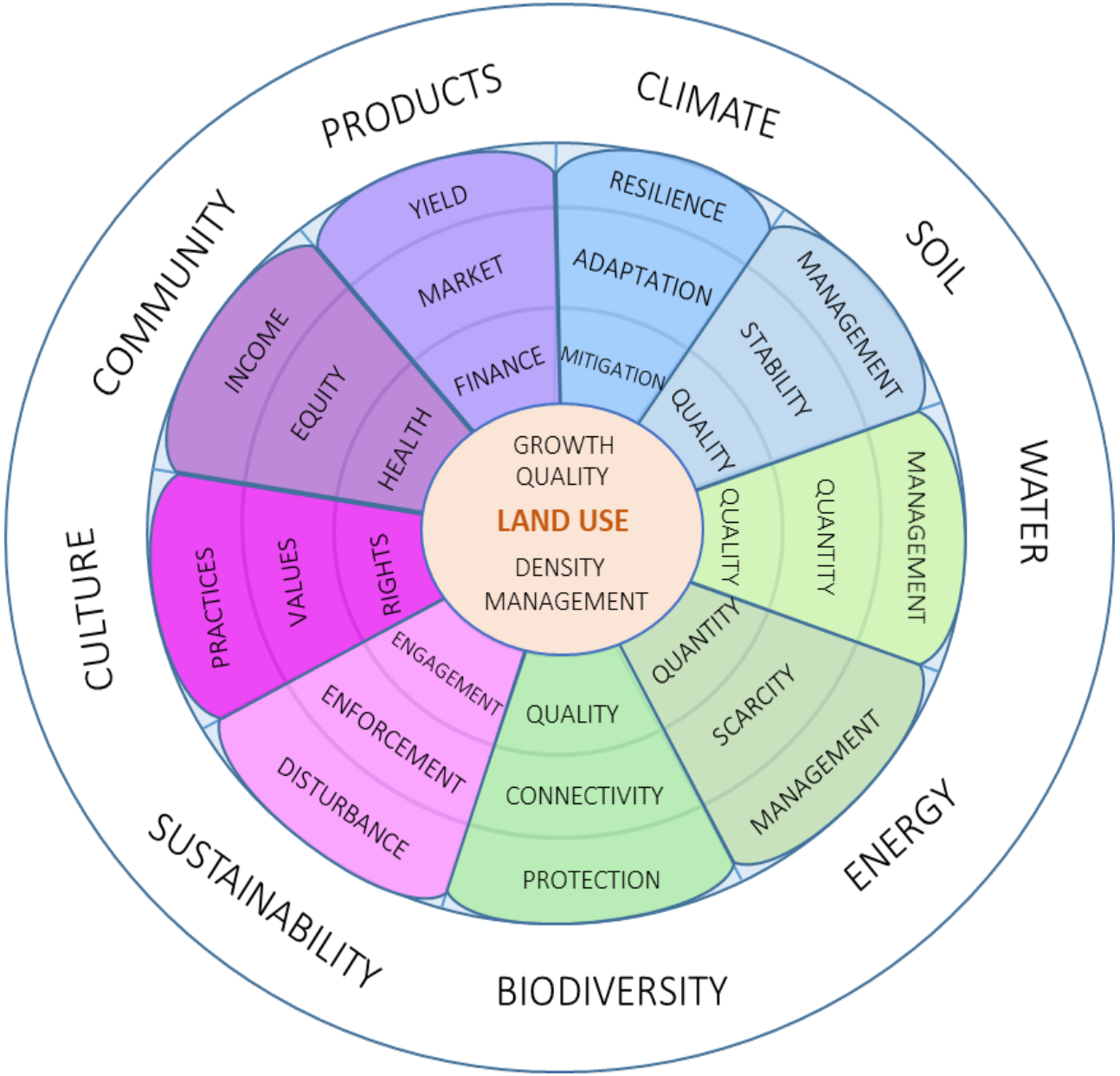
Upcoming publication on lessons learned from using Collect Earth in India, El Salvador, Ethiopia, and Rwanda, in cooperation with FAO

Focus on measuring land-use land-cover and trees outside forests

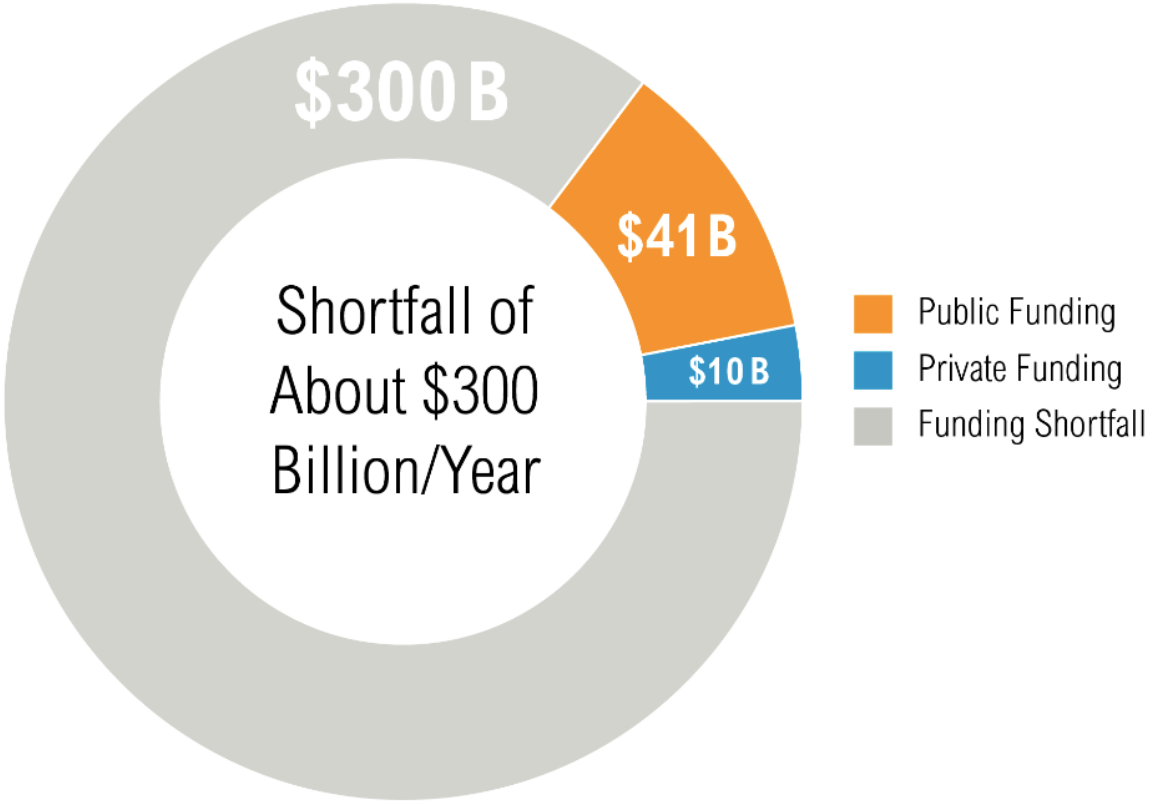


Designing a restoration monitoring system

Upcoming publication on selecting the best indicators for local contexts, using examples from El Salvador, Ethiopia, Kenya, and Malawi, also in cooperation with FAO



The New Restoration Economy



How do we close the restoration funding gap?

NRE - Increasing Private Investment in Restoration

Investors ask:

What is restoration?

How can restoration business models generate a return?

What do restoration business opportunities look like?

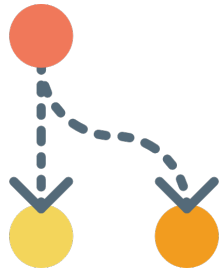
Making the Business Case for Restoration

- **140** businesses analyzed
- **14** companies profiled
  - Technology
  - Consumer Products
  - Project Management
  - Commercial Forestry
- Australia, Brazil, Canada, Germany, Kenya, Netherlands, UK, USA

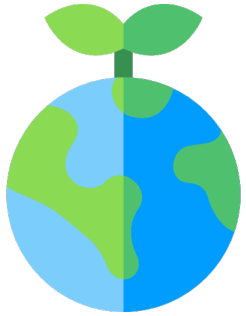
Company Selection Criteria

Profitability

Scalability



Replicability



Environmental Impact

Social Impact

Key Takeaways

- Wide range of investment opportunities
  - Variety of sectors; ag, forestry, and more
  - Pre-revenue to $50M+/yr; <10 to 450+ employees
- Profit and impact can go hand-in-hand
  - Restoring ecosystem services
  - Building innovative, financially sustainable business models

Photo Credits: Ecosia

NRE - Looking Ahead

- Private sector workshops: business-investor matchmaking
  - Land Accelerator : convening restoration enterprises from all over Africa to receive business and technical training, as well as access to private finance
- Digital restoration business & project marketplace/platform
- Restoration impact investment metrics with the Global Impact Investing Network (GIIN)
- Increase the bundling of smaller sized projects/investments
- Promote blended deals with Development Finance Institutions (DFIs) to offset investor risk

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