



Ministerio de
Medio Ambiente
y Recursos Naturales



El Salvador Informal R-PP Presentation

June 28, 2012,
Santa Marta, Colombia

OUTLINE

1. El Salvador in brief
2. Draft Review
 - Institutional Arrangements
 - Early Dialogue
 - Options of REDD+ Strategy
 - Reference Level
 - Monitoring system including multiple benefits assessment



El Salvador

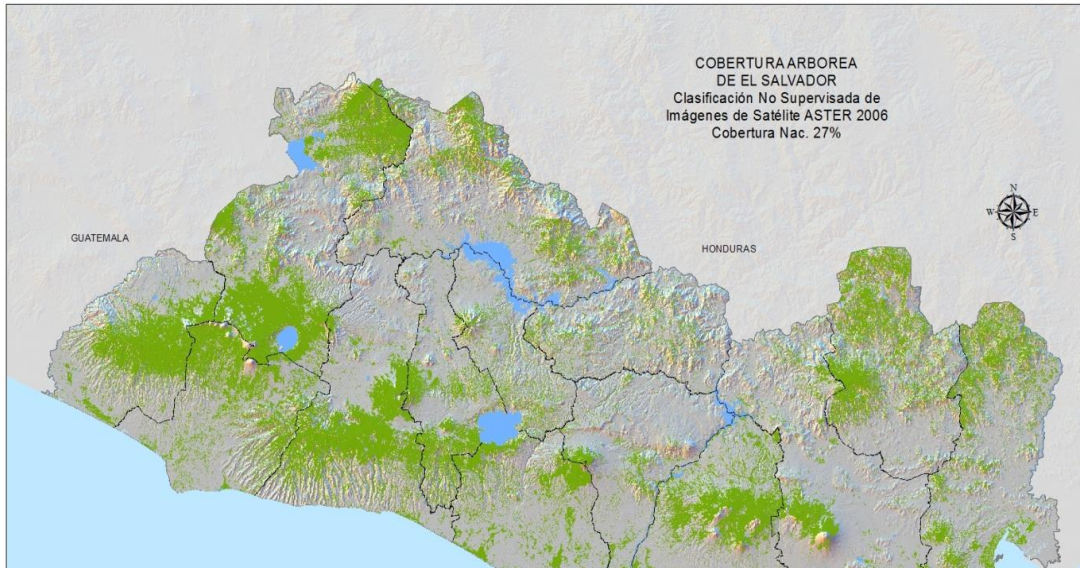
Area 20,051 Km²

Population 6.251.495

Area with agricultural activities – 67.23%

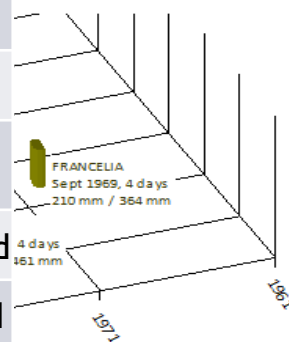
Forest & tree cover – 27%

More than 23% of GHG emissions are associated with deforestation and land



	E96/Ida Nov 2009	Agatha May 2010	TD 12E Oct 2011
Economic loss	\$315 million	\$112 million	\$840 million
Agriculture	\$28 million	\$11 million	\$105 million
Bridges	24 collapsed 55 damaged	25 damaged	8 collapsed 26 damaged
Roads	132 damaged	61 damaged	40% damaged
Schools	111 damaged	378 damaged	947 damaged
Deaths	198	12	34

EL SALVADOR
 Potential rains, 1961-2011
 (Average / Maximum Registered)
 From the PACIFIC Ocean
 From the ATLANTIC Ocean



COBERTURA ARBOREA
DE EL SALVADOR
Clasificación No Supervisada de
Imágenes de Satélite ASTER 2006
Cobertura Nac. 27%



GUATEMALA

HONDURAS

OCEANO PACIFICO

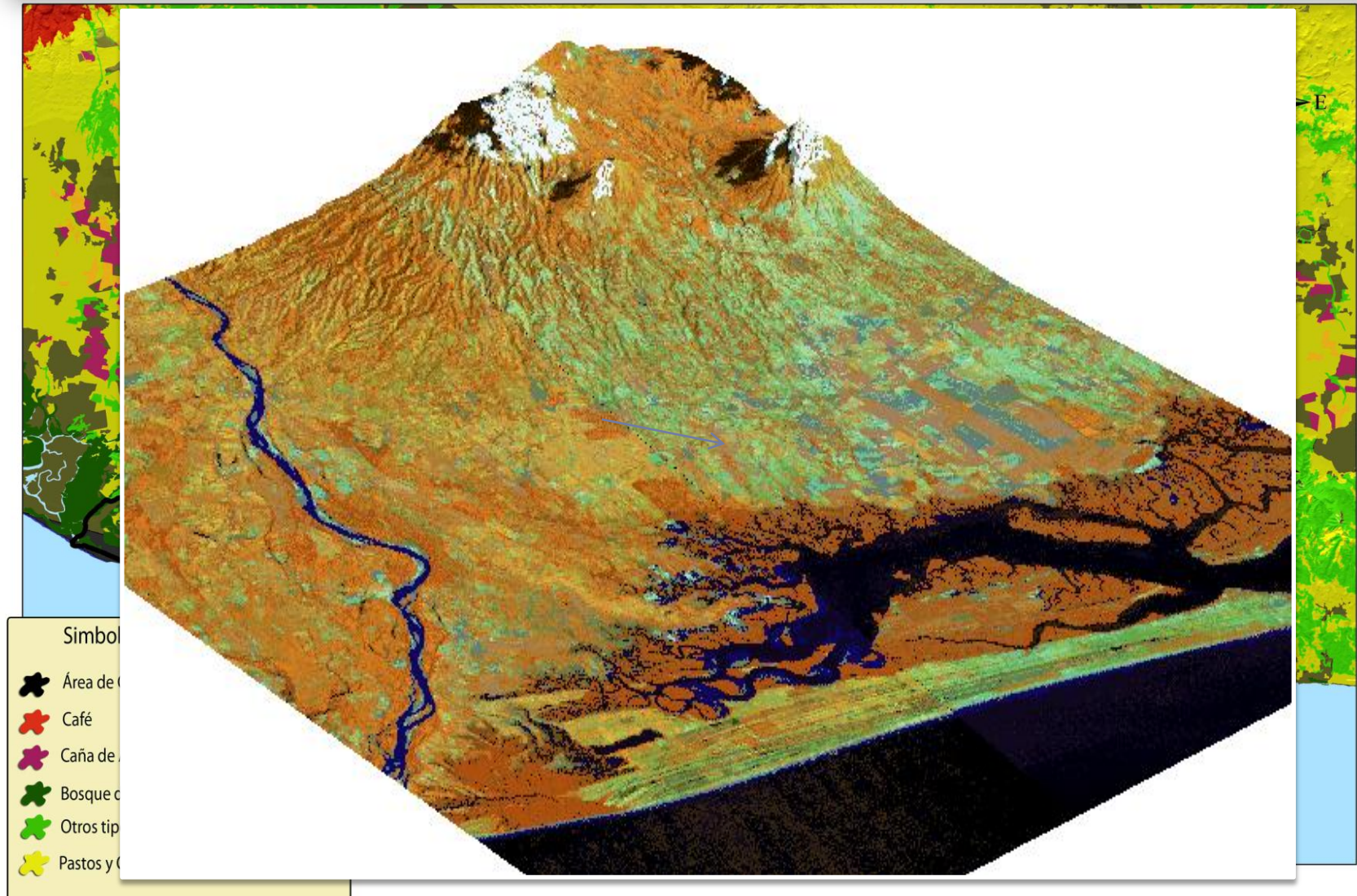
Bahía de Jiquilisco

REDD Plus activities

1. Reducción de emisiones por deforestación;
2. Reducción de emisiones por degradación de bosques;
3. Manejo sostenible de los bosques;
4. Conservación de las reservas forestales de carbono;
5. Incremento de las reservas forestales de carbono.

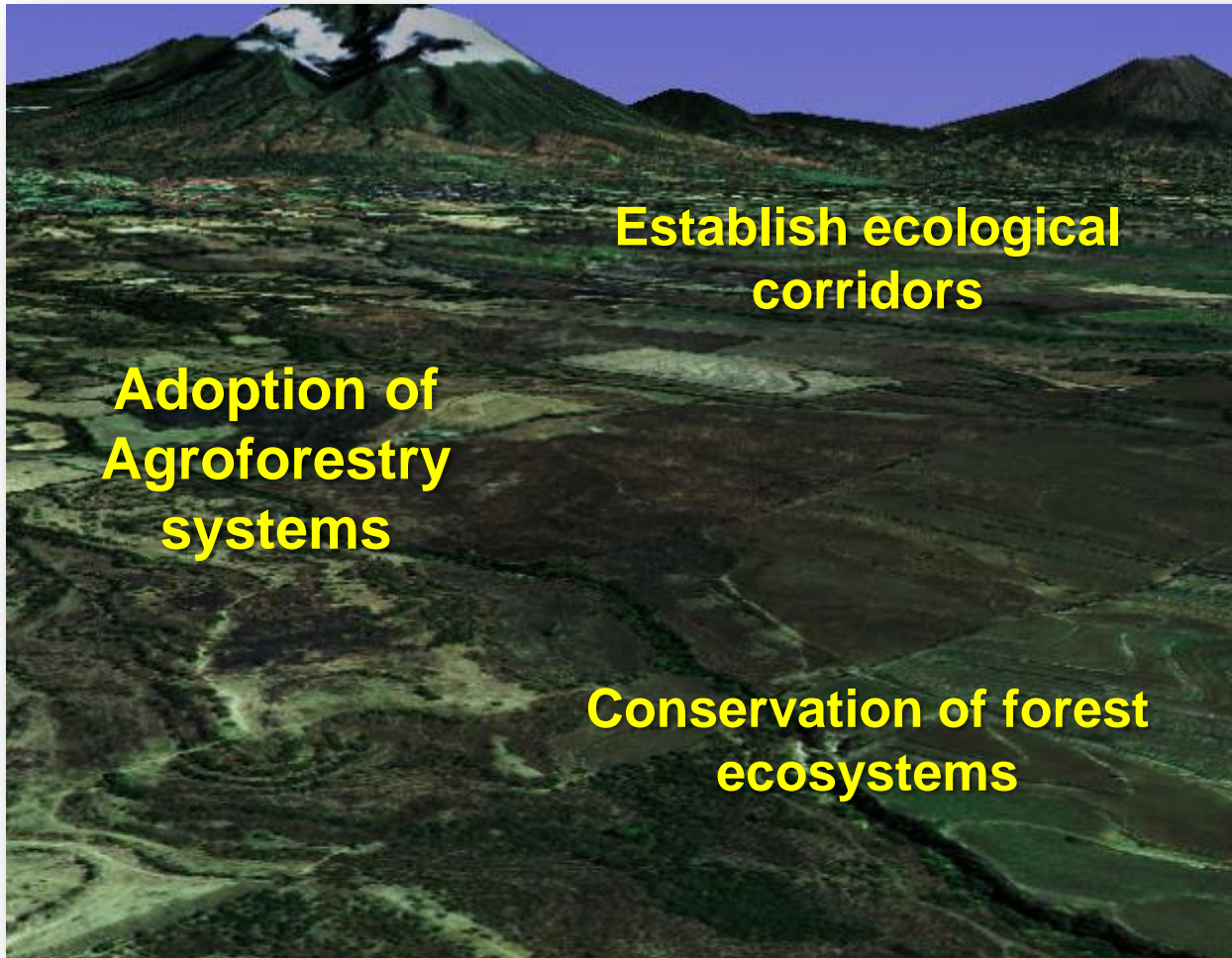
Adaptation – based Mitigation

Bahía de Jiquilisco – Alluvial Forests, Riparian Forests, Agro-forestry (Shade coffee, Cacao); Mangroves; Tropical Forest





Erosion & landslide control, risk reduction , sustain basic grains production, **capture carbon**



- ▶ Expand eco-efficient agroforestry systems
- ▶ Re-forestación to control erosion, landslides & risk reduction.
- ▶ Adoption of climate resilient agricultural practices

**Conserve & Restore Mangroves
for improvement of local
livelihoods & bolster “natural
infrastructure” to reduce
flooding and coastal erosion**



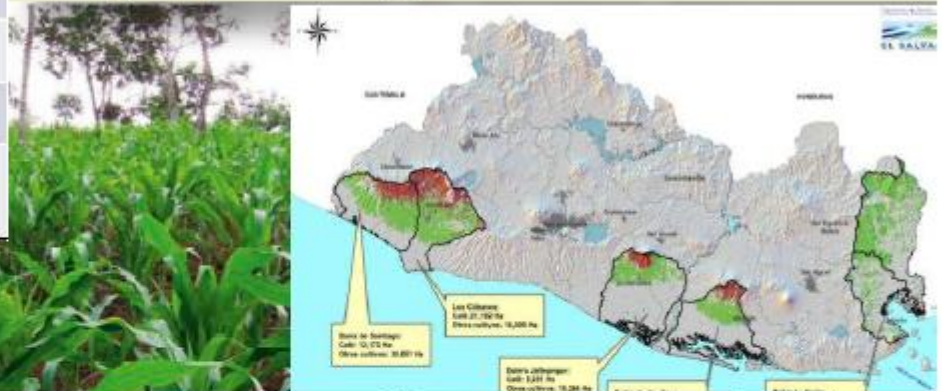
Riparian forest restoration and protection



- ▶ Increased natural infrastructure for flood control in rural landscapes and coastal riverine
-

USO DE LA TIERRA EN LADERAS (PENDIENTES 34 - 38 GRADOS)	EROSIÓN (TON/HA/AÑO)
TALA Y QUEMA	92
PASTIZALES USANDO FUEGO	87
CAFÉ DE SOMBRA	19
GRANOS BÁSICOS CON ARBOLES DISPERSOS, ESTIÉRCOL Y PAJA	18

Agroforestería reduce erosión y aporta grandes beneficios



BENEFICIOS POTENCIALES DE LA AGROFORESTERÍA EN LA FRANJA COSTERA DE EL SALVADOR	AÑO 1	AÑO 2	AÑO 3	AÑO 4	AÑO 5
REDUCCIÓN DE COSTOS DE DRAGADO Y BORDAS EN BAJO LEMPA POR INUNDACIÓN/SEDIMENTACIÓN	0.0	0.0	6.0	6.0	6.0
DAÑOS Y PÉRDIDAS EVITADAS EN CULTIVOS, INFRAESTRUCTURA Y DAÑOS SOCIALES	0.0	0.0	5.6	5.6	5.6
REDUCCIÓN DE COSTO DE DRAGADO EN PUERTO DE LA UNIÓN POR DISMINUCIÓN DE SEDIMENTACIÓN	0.0	0.0	1.5	1.5	1.5
PÉRDIDA EVITADA DE SUELOS POR EROSIÓN	0.0	1.5	3.1	4.0	6.5
PÉRDIDAS EVITADAS DE FERTILIDAD DE SUELOS Y RENDIMIENTO DE PRODUCCIÓN POR EROSIÓN	0.0	0.2	0.6	1.1	1.7
TOTAL EN MILLONES DE DÓLARES	0.0	1.8	16.8	18.1	21.3



Embedded Approach to assure *buy-in*: National Environmental Policy

Primary Objectives

- Reverting Environmental Degradation; and
- Reducing Vulnerability to Climate Change.

Strategic goals

- Inclusive conservation and ecosystems restoration
- Climate change Adaptation and risk reduction
- Environmental Sanitation
- Responsibility and environmental compliance
- Water integrated management
- Environment and Land Planning



National Environmental Policy

National Plan of Adaptation
for Climate Change

National Ecosystem and Landscape
Restoration Program

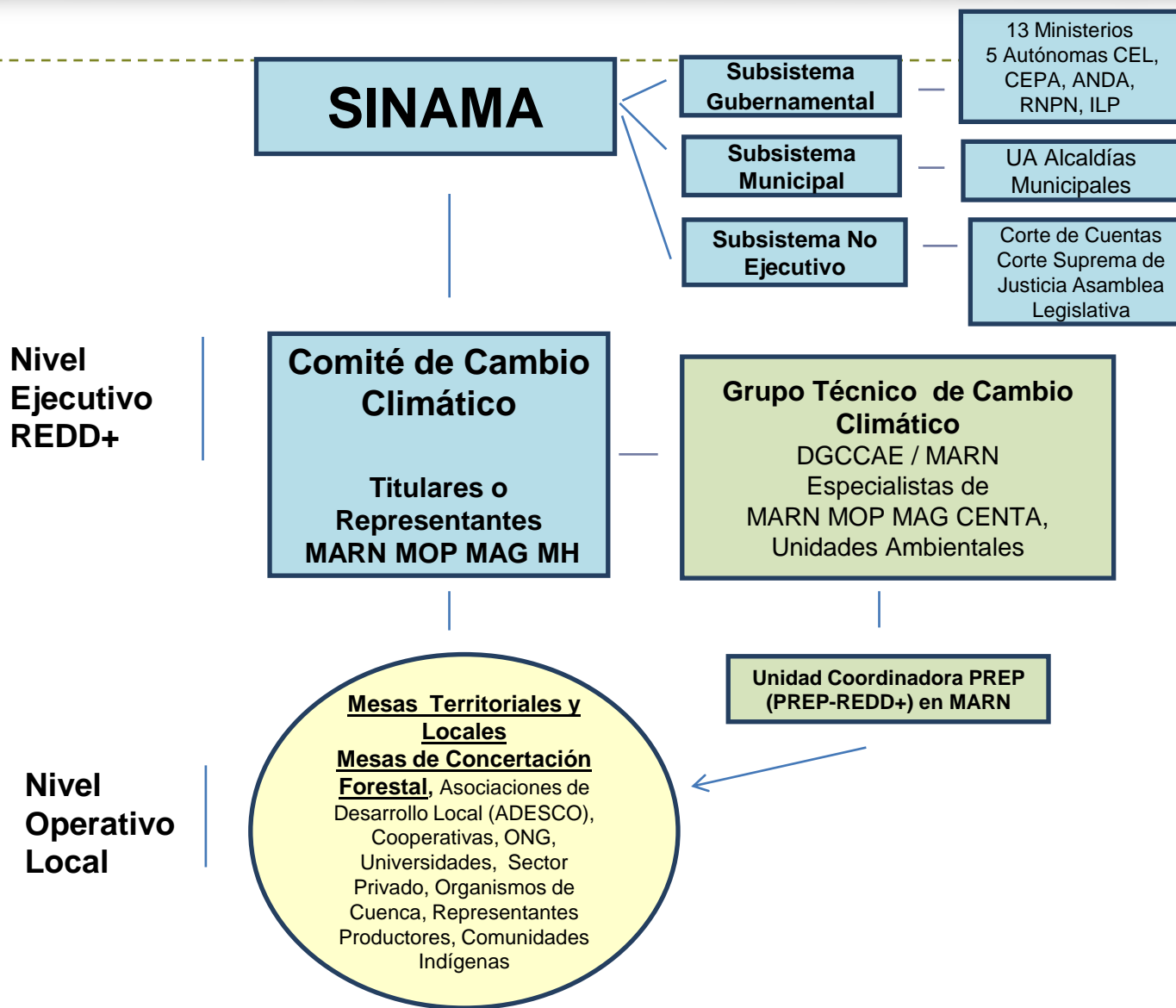
REDD PLUS
National
Program

Forestry National
Policy

Biodiversity
National Strategy



REDD+ INSTITUTIONAL ARRANGEMENTS Component Ia



Early Dialogue– Relevant Actors

High Level meetings with
Decision – makers (MAG)

Dialogues with Central and
Municipal Governments

Indigenous communities

Private Sector- Forestry

National Level Networks of
Private Protected Areas

Assoc´s Small Producers &
Cooperatives

PA – NGO co-managers
Environmental &
Development NGO´s

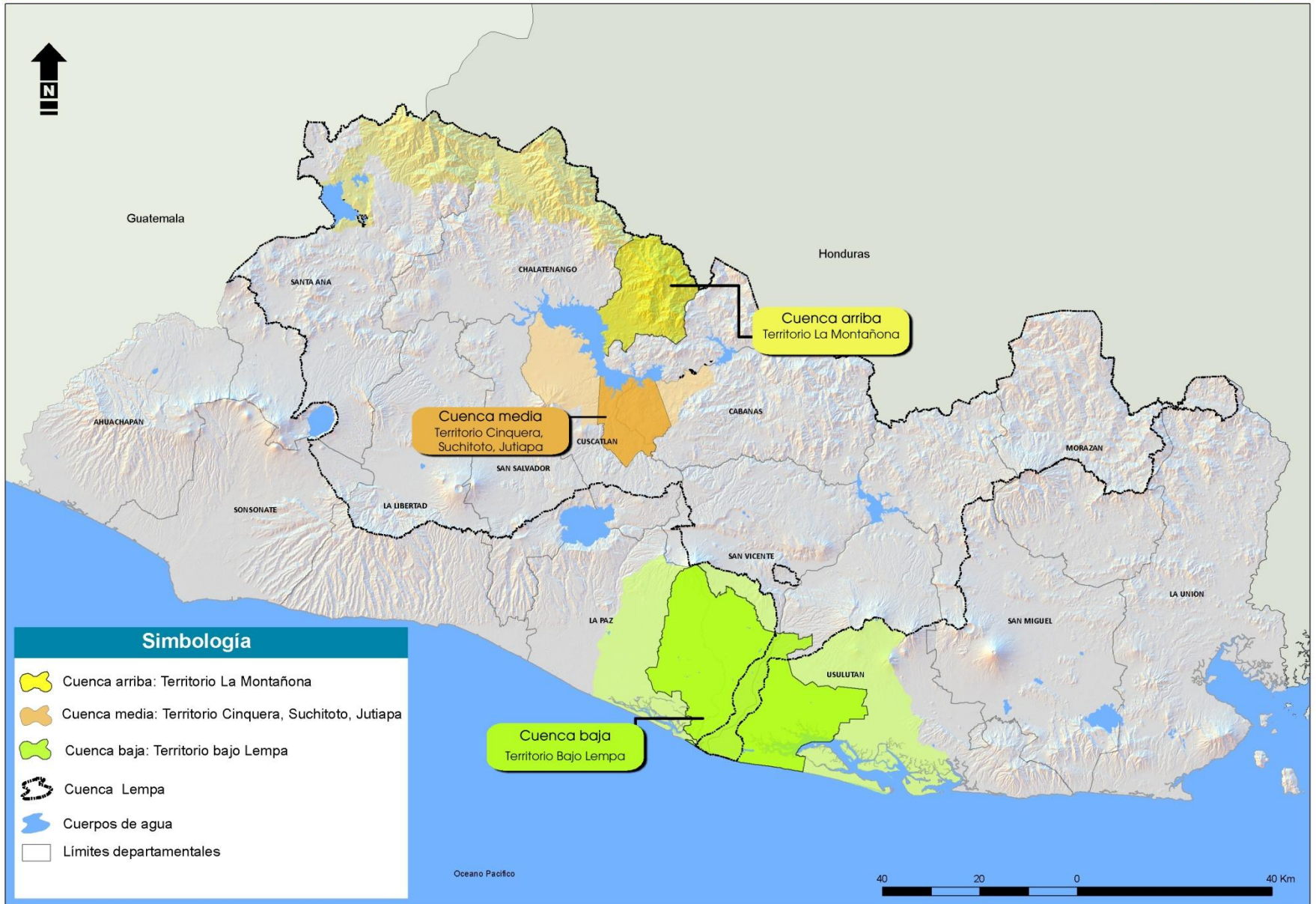
Cane, Cattle & Coffee
producer associations

Mesas territoriales

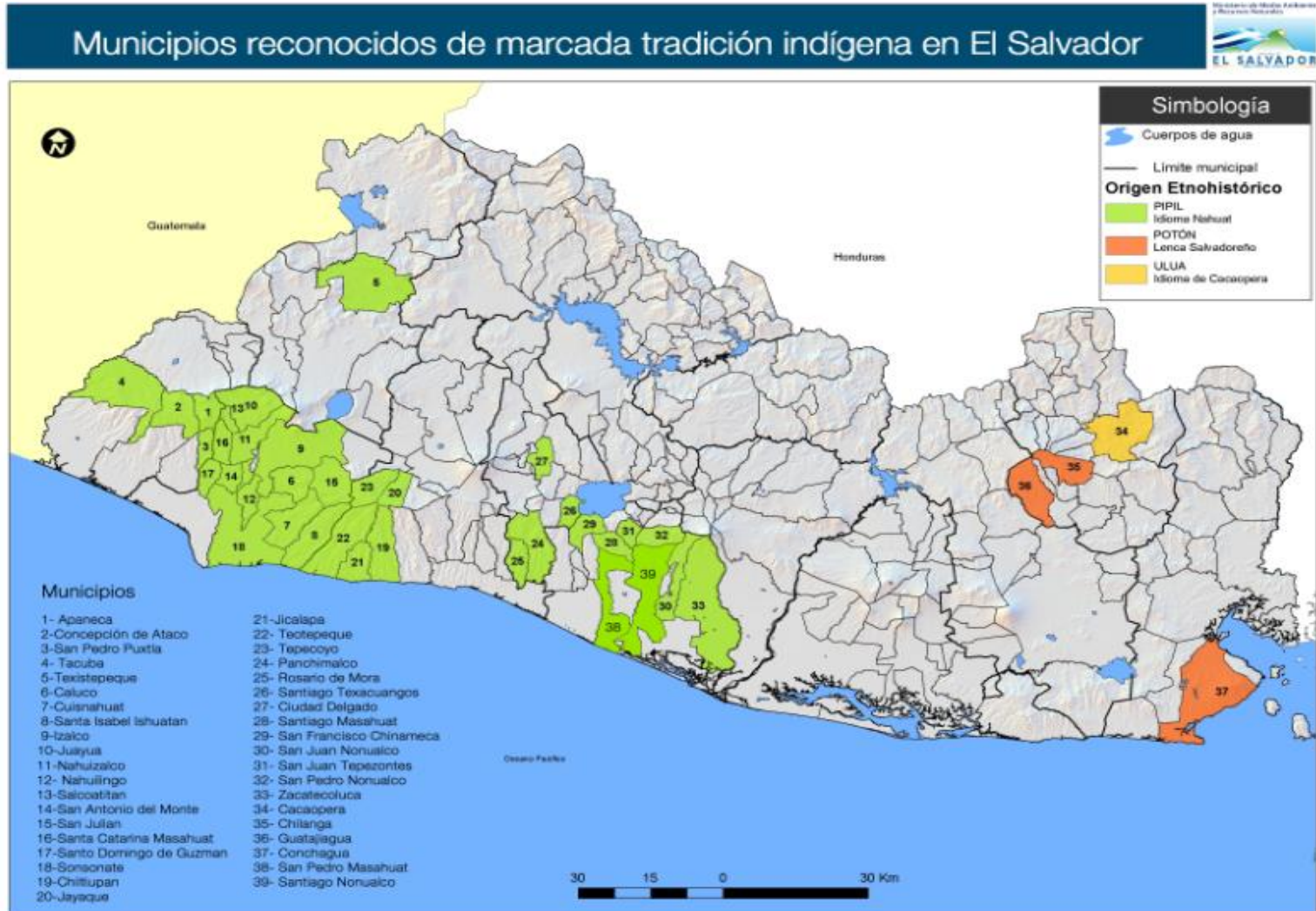


Analysis of Drivers D&D





Early dialogue with Indigenous Communities



Initial Dialogue over Environment Issues, Natural Resources and Climate Change with Indigenous communities



Unsustainable agricultural practices

Land Use Change for Agriculture

Housing and urbanization

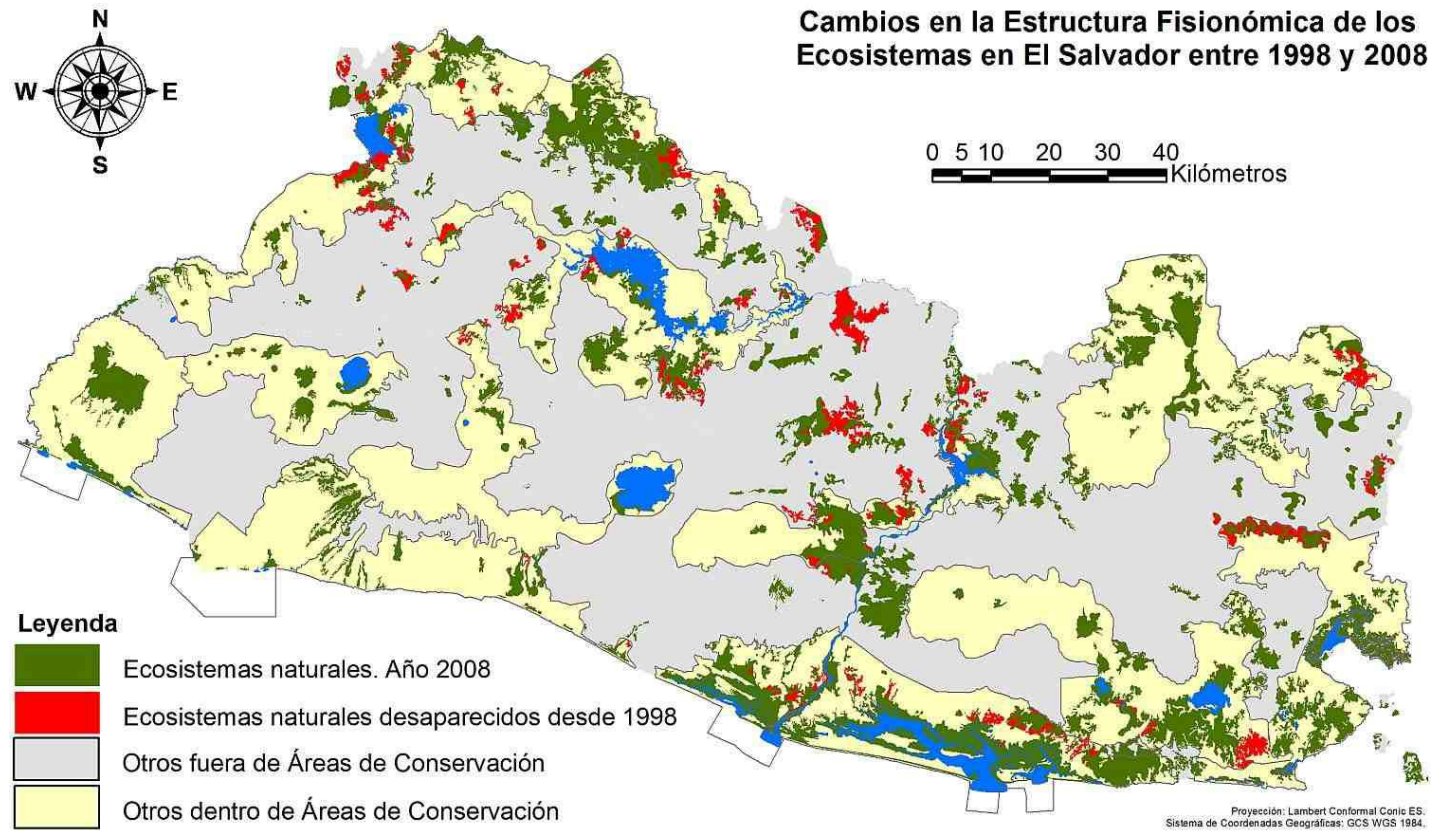
Pasture expansion

Forest Fires

Illegal logging

Driving forces and main activities related with Land Use Change

Natural ecosystems 1998 - 2008



REDD+ Strategic Options

Unsustainable agricultural practices

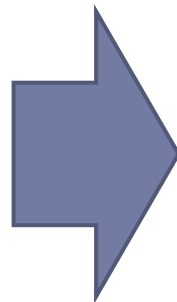
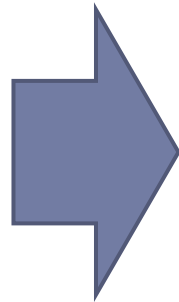
Land Use Change for Agriculture

Housing and urbanization

Pasture expansion

Forest Fires

Illegal logging



- 1. Increase Climate Resilient agriculture and Agro-forestry, low in CO₂ emissions**
- 2. Forest conservation and restore forest ecological connectivity.**
- 3. Program of Incentives & Compensation**
- 4. Activate legal instruments related to land use, land planning, environmental zoning, agricultural practices, and control the illegal timber/firewood extraction .**
- 5. Recognise rights over forest resources managed collectively.**
- 6. Harmonize sectoral policies linked to/influencing land use and land use change.**

KEY ACTIONS	SECTORS to CONSULT	ISSUES & INSTRUMENTS
Promote widespread adoption of <i>no-burning in sugar cane</i> production	<ul style="list-style-type: none"> ➤ Sugar Cane producers and Sugar Mill owners ➤ Small producers/coops who rent their land 	"Green cane" production & land use zoning to limit & regulate expansion for ethanol
Promote expansion and sustainability of <i>shade coffee & introduce cacao</i> as agroforestry systems	Large & small scale coffee producers and producers in vulnerable areas.	Shared priorities & harmonization w/ MAG and strengthening NGO's and producer organizations
Legal recognition of <i>private- collective</i> efforts to conserve <i>crucial forest</i>	➤ Local actors through their local organizations & local governments	Legal instruments are insufficient and need for compensation for environmental services
Restoration of <i>Mangroves & coastal ecosystems</i>	➤ Local fisherfolk, farmers & tourism investors	High pressure (shrimp farmers) & tourism. Need for zoning & expansion of local management rights
Lead exploration for deepening Indigenous rights over natural resources	➤ Indigenous communities & organizations	No collective land ownership Recent recognition by GOES

REFERENCE Levels – Component # 3

1. Forest definition for REDD Plus Program in El Salvador
2. Identify Sinks / Carbon Pools to be included
3. Comparative analysis of the maps (2002 - 2011) to establish the baseline - Historical Emissions
4. Analysis and Quantification of Key Drivers.
5. Land Use Map and Forest Inventory
6. Modeling - Projection of Historical Trends
7. Modeling - Projection Plus REDD Activities

To develop a national forest reference level and the National Carbon Map, through the combined use of wall-to-wall aerial photographs, Lidar images, and satellite images.



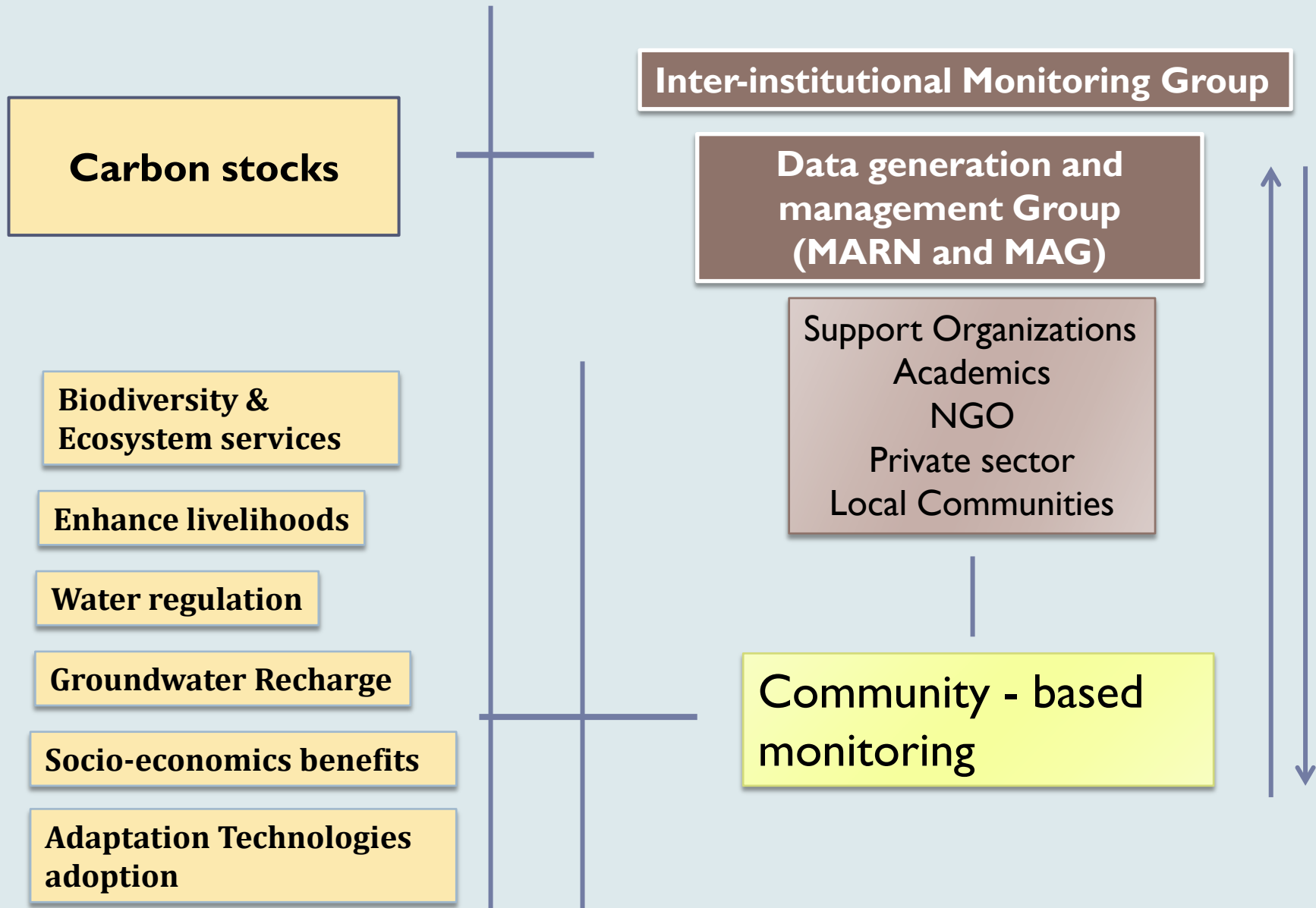
MONITORING SYSTEM

(A robust, transparent and accurate monitoring system)

1. Establish the Inter-institutional Monitoring Group and Data generation Team (MAG and MARN).
2. Involvement of relevant Institutions.
3. Capacity building Program.
4. To identify set of indicators and protocols - Community - based monitoring, including:
 - a. A system for monitoring above and below ground carbon in forest (including agroforestry activities).
 - b. Biodiversity. Indicators for monitoring both landscape dynamics and biodiversity restoration and conservation actions. Levels Landscape, ecosystem and indicators species (mycorrhizal). Soil biodiversity. Impact on livelihoods
 - c. Indicators for monitoring soil restoration, avoid erosion, water regulation and groundwater recharge – RAS methodology
 - d. Socio-economics benefits (incomes, resources rights; governance , PLES selfregulation

A system for providing information on how the safeguards identified in SESA are being addressed and respected

Institutional Framework for Monitoring System



BUDGET

COMPONENTS	Subcomponents	Estimated cost (in US\$ thousands)				
		GOES	FCPF	USAID	GIZ	Total
Component 1. 26.40%	1a. Institutional	\$150	\$268	\$0	\$332	\$750
	1b. Dialogue	\$0	\$389	\$0	\$0	\$389
	1c. Consultation	\$0	\$468	\$0	\$0	\$468
Component 2. 22.71	2a. Assessment	\$0	\$333	\$0	\$34	\$367
	2b.c. REDD+ Strategy	\$0	\$365	\$0	\$185	\$550
	2d. SESA	\$100	\$365	\$0	\$0	\$465
Component 3. 22.37%	Reference Level	\$150	\$305	\$0	\$785	\$1,240
Component 4. 28.04%	4a. Monitory System	\$280	\$627	\$0	\$170	\$1,077
	4b. Multiple Benefits	\$100	\$330	\$200	\$0	\$630
Component 6.	R-PP Monitory	\$0	\$150	\$0	\$0	\$150
		\$780	\$3,600	\$200	\$1,506	\$6,086

Thanks for your attention

**Jorge Ernesto Quezada Díaz
Deborah Barry**

**Ministerio de Medio Ambiente y
Recursos Naturales
El Salvador**

**jquezada@marn.gob.sv
dbarry@marn.gob.sv**

