Committed to Making Ethiopia Ready to the Global REDD+ Mechanism

REDD+ Technical Elements

(Solomon Zewdie)

National REDD+ Secretariat

National REDD+ Pilots Coordinator

Benishangul Gumuz Regional State, Assosa

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Part 1:

Measurement and Monitoring

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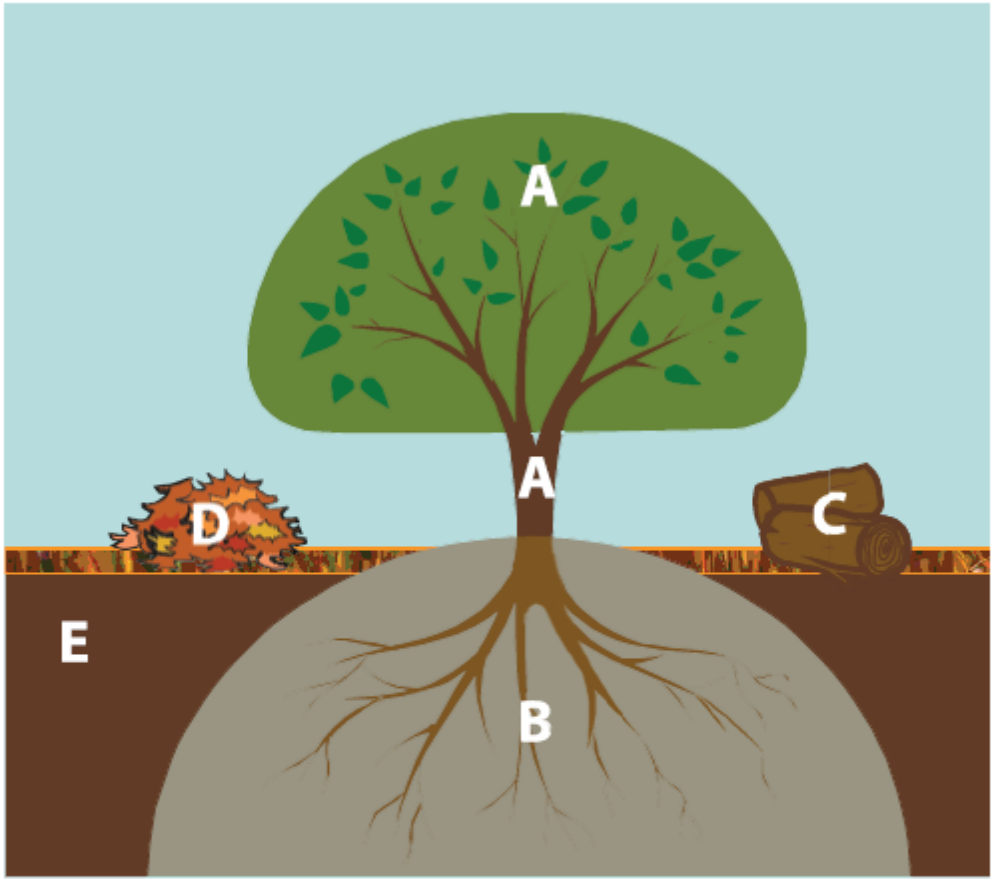
Forest Carbon Pools

5 Different places



A. Aboveground Live Biomass (trunk, branches, leaves)
B. Belowground Live Biomass (roots)
C. Dead Wood (stumps, broken off branches, fallen trunks)
D. Litter (dead leaves and vegetation)
E. Soil (typically up to 30 cm depth)

Carbon Accounting

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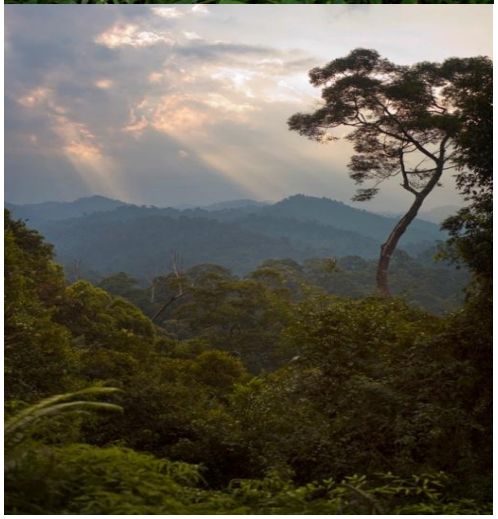
The basic steps of carbon accounting are:



- Calculate the area under forest cover using satellite imagery
- Calculate the carbon density in each forest type
- Calculate the rate of change
- Combine the data on area, density, and rate to define your baseline scenario
- Monitor how you perform compared to your baseline over the years

Activity data = change in forest area/yr
Emission Factor = change in Carbon Stock/ha

REL (tons CO_2/year): = Total Forest Area* Annual Deforestation Rate* (ha)*Carbon density (tons/ha)* 3.667

Emission/Removal (tons CO_2/year) =

Activity data* Emission Factor*3.667

Measurement: IPCC Methodologies

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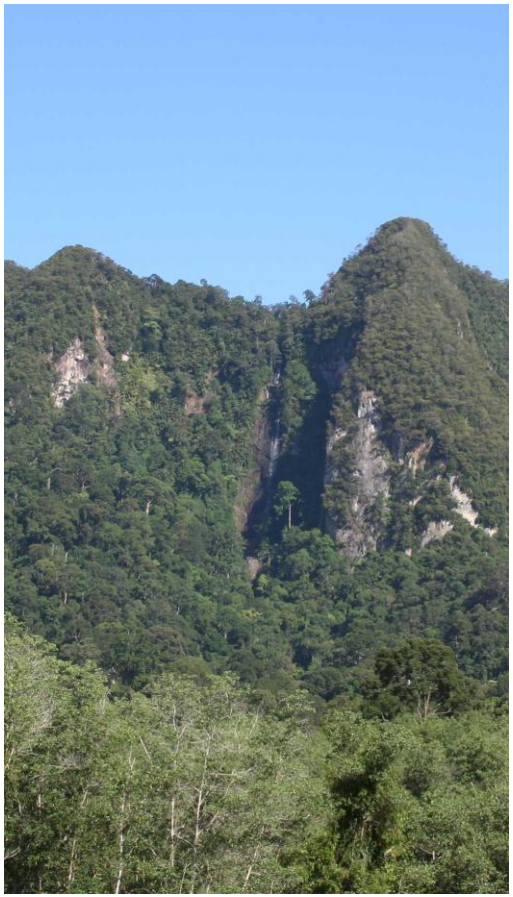
IPCC (2003) Good Practice
IPCC (2006) National GHG Inventory



- Explains steps for preparing national greenhouse gas emissions inventories for AFOLU
- Indicates methods for measuring changes in carbon stock:
  - Forest cover
  - Biomass
- Provides formulas for quantifying changes in carbon stock for all land use classes

- Describes accepted methods for remote sensing
  - Satellite imagery (Landsat, SPOT, MODIS)
  - Radar, Lidar
  - Aerial photographs

Measurement: IPCC Methodologies

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Tier 3

- Higher level of measurement, with forest inventory systems and modelling
- Permanent sample sites and periodic measurement
- High precision disaggregated activity data

Tier 2

- Emission data or carbon stock data at the national or regional level
- National level emissions factors
- More precise spatial data by activity

Tier 1

- Predetermined formulas and values (e.g. for emissions factors and changes in stock)
- Data estimates for national level activities (e.g. deforestation rates, forestry statistics, vegetation cover, population changes)

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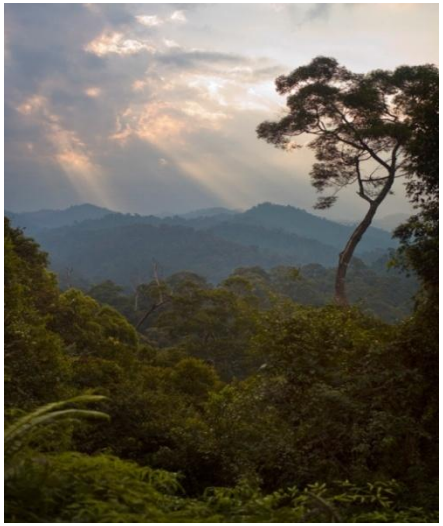
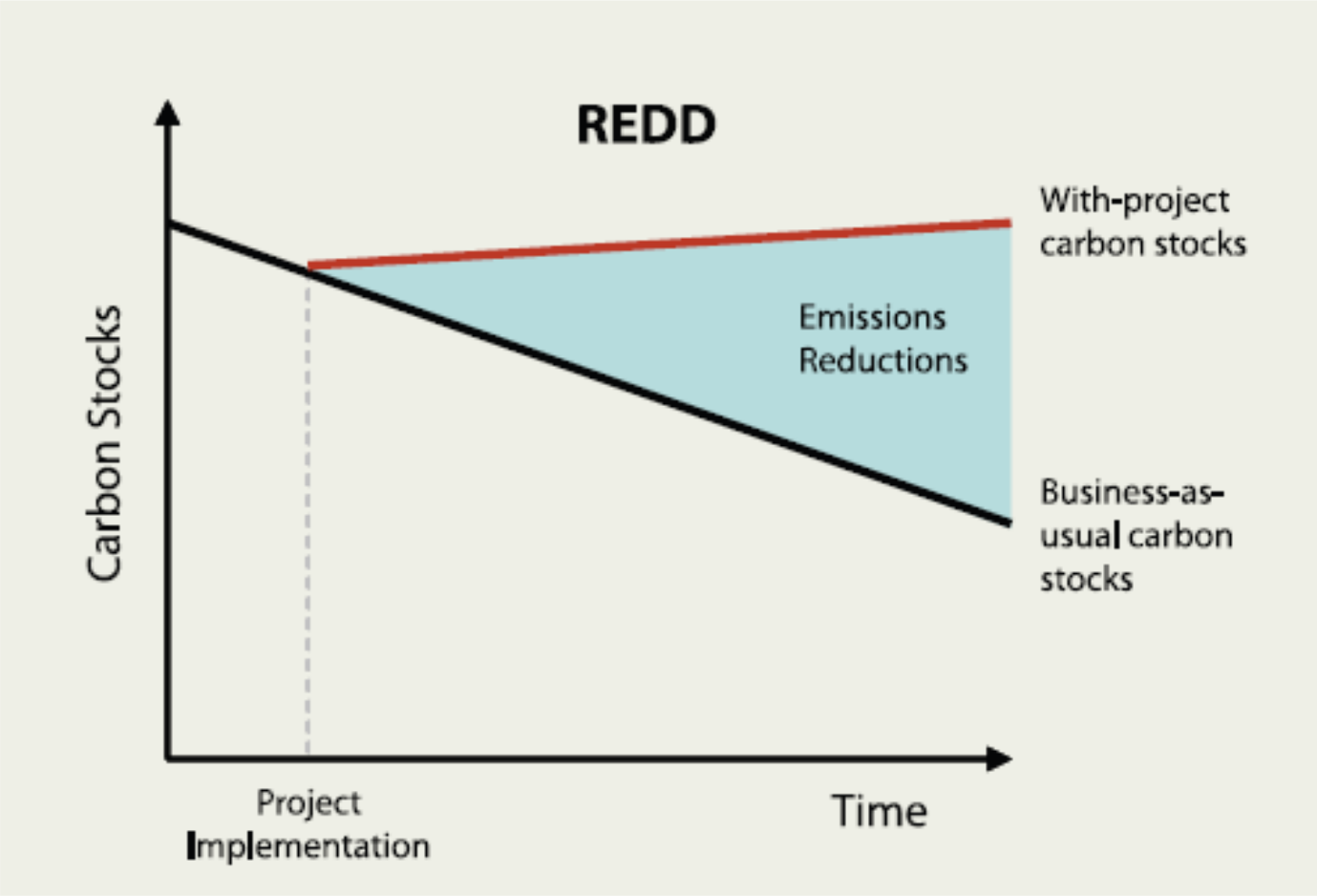
Reference Levels and Additionality

Reference Levels

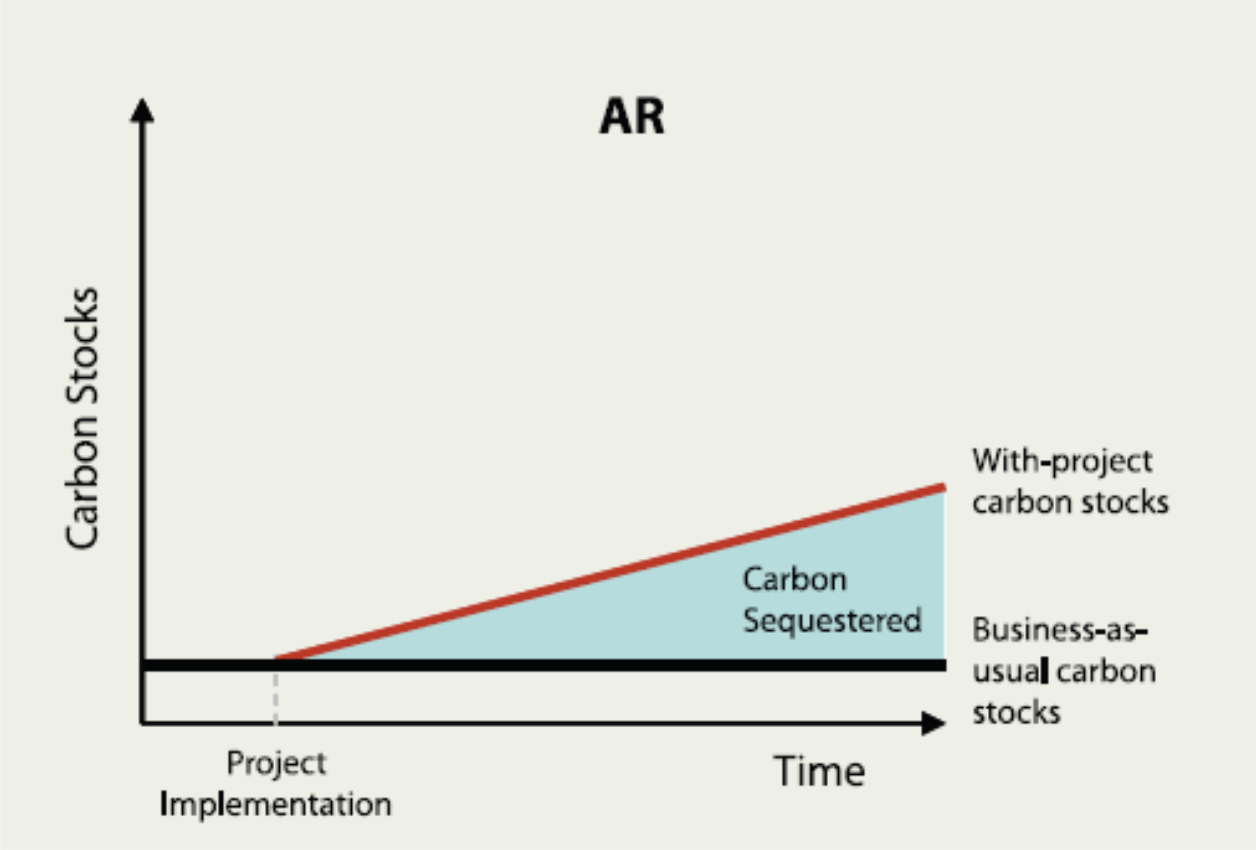


- **Reference emissions level:** the amount of gross emissions from a geographical area estimated within a reference time period
- **Reference level:** the amount of net/gross emissions and removals from a geographical area within a reference time period
- **Methods:**
  - **Historic data**
  - **Modelled Projections**
  - **Historic data with adjustments**

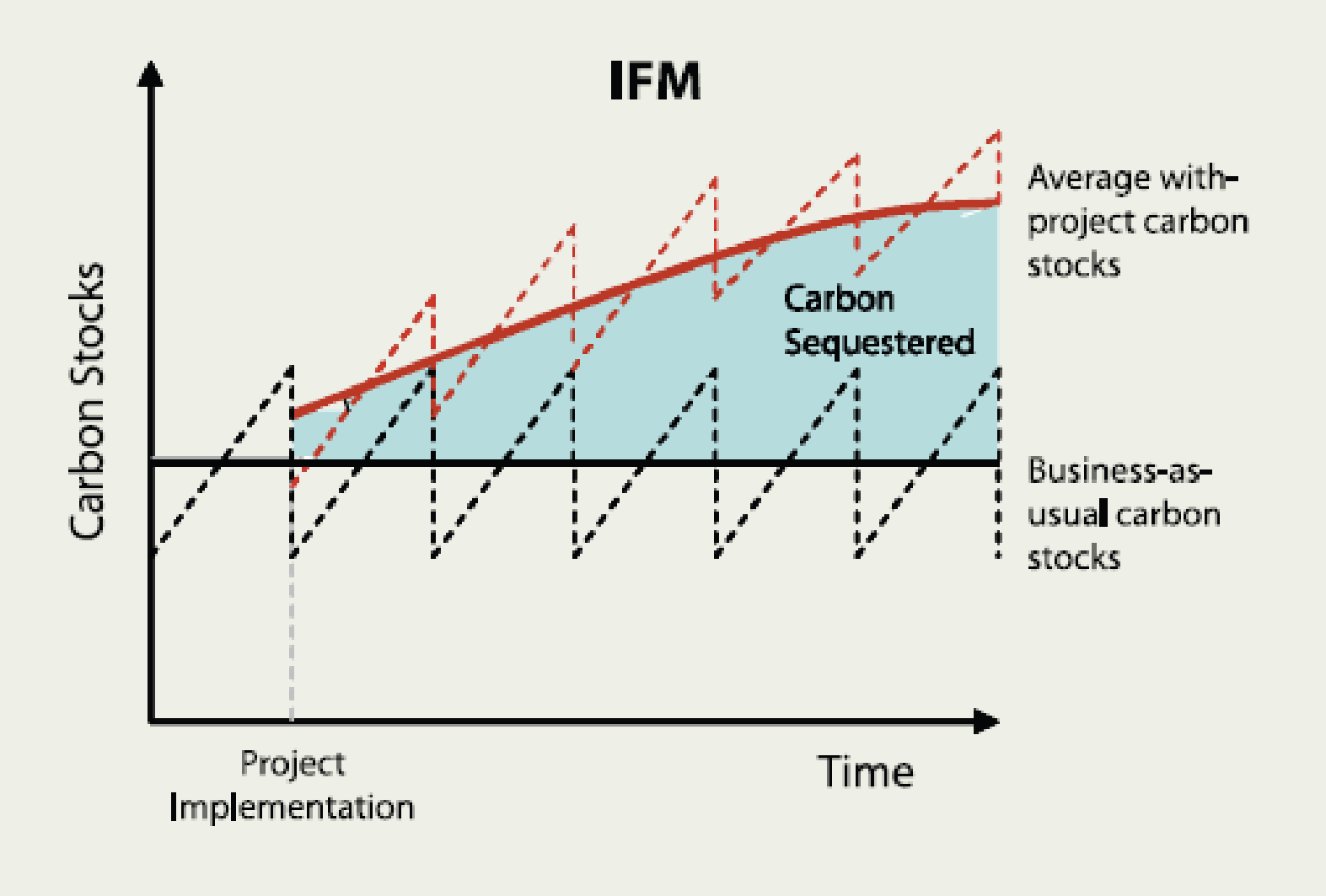
Reference Emission Level: REDD



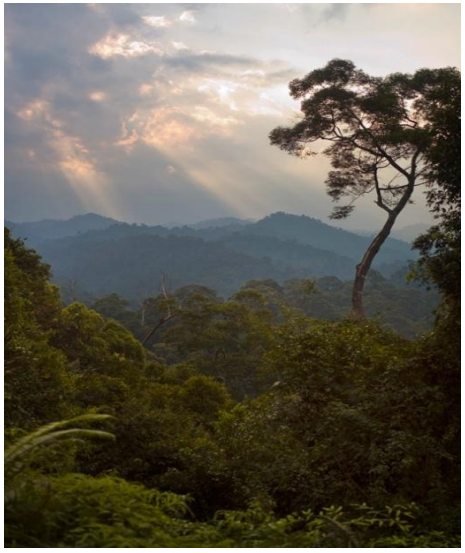
Reference Level: Enhancement



Reference Level: Sustainable Management of Forests

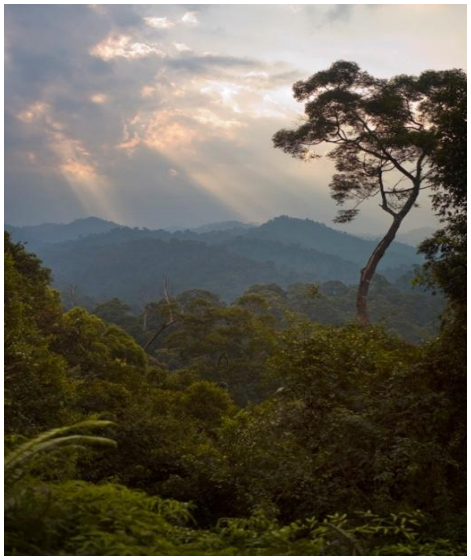


Reference levels: best practice



- Suggested best practices for setting reference levels:
  - Use five to ten years for more accurate historic information;
  - Re-calculate baseline each five to ten years
  - Explicitly choose conservative scenario
  - Indicate statistical error in baseline data;

Additionality



- **For national programs, additionality is proven through measuring performance against a REL or RL**
- **For projects, other additionality tests include:**
  - Legal/regulatory test - is project legally required?
  - Financial test - does project maximize net present value and rate of return without potential carbon payments?
  - Common practice test - is project typical for management practices in region or historic on property?

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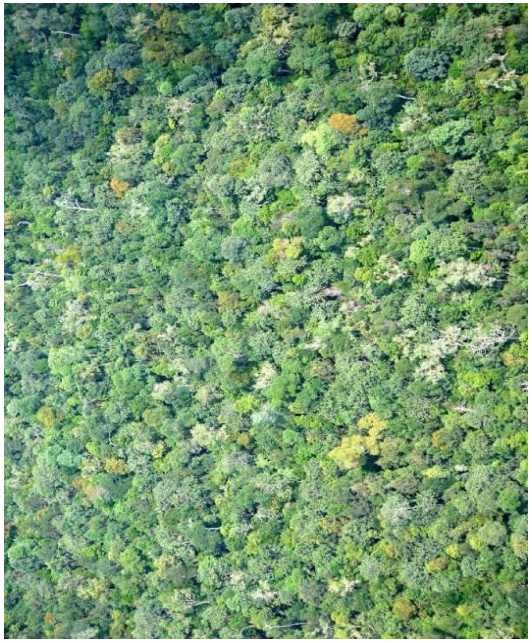
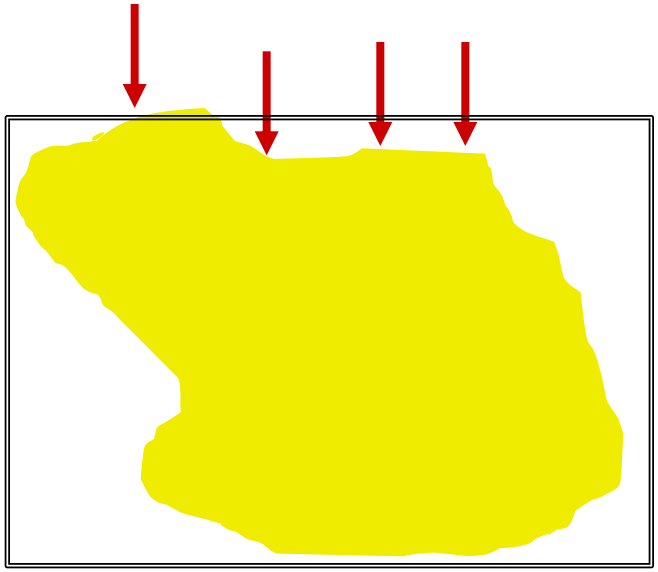
Leakage & Non-permanence

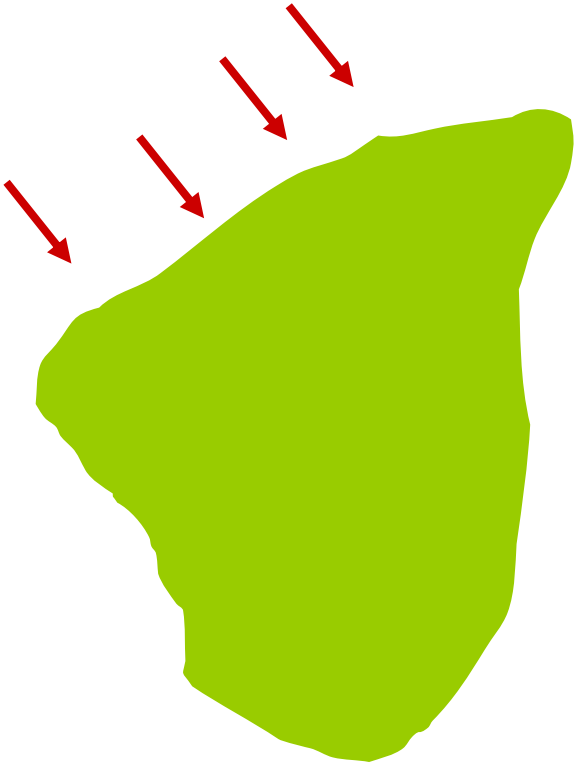


Exists in other sectors, not just forestry

Leakage: what is it?

- Human-caused changes in carbon emissions in defined spatial area outside of project boundaries but attributable to project.
- Increase in emissions in one area due to a reduction of emissions in another.





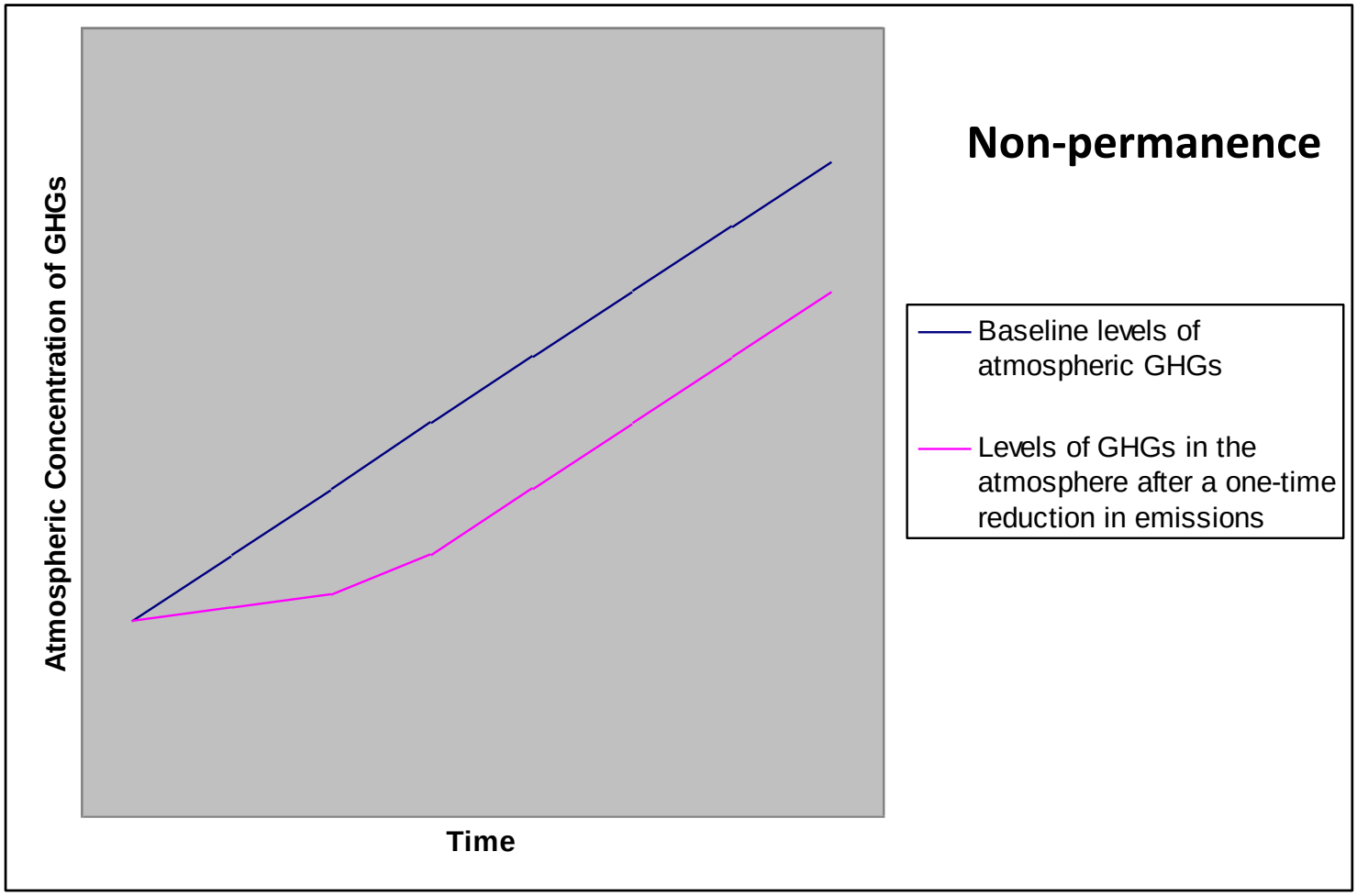
Leakage

- **Activity Leakage:** activity shifting at local to regional scale due to release of capital and labor through project activities
  - **Examples:** illegal logging moves elsewhere
- **Market Leakage:** market effects at regional to global scale due to reduced supply but undiminished demand
  - **Examples:** Increase log exports from another country

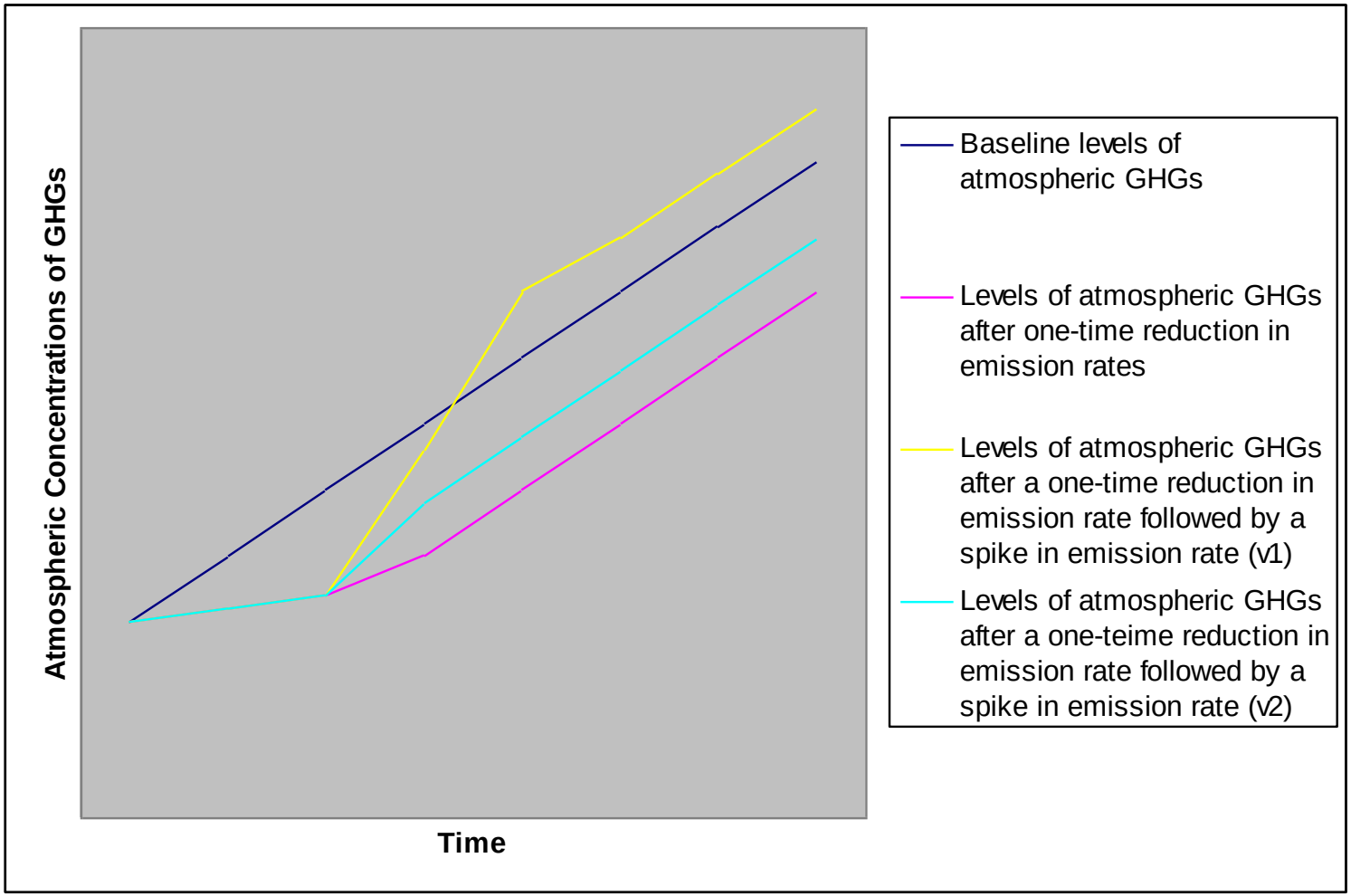
Managing leakage

- Alternative livelihood development
  - *fruit and coffee gardens*
  - *sustainable forestry*
- Portfolio balancing
  - *reforestation*
  - *mangrove restoration*
- Improved governance and spatial planning
- Buffer credits (i.e. 10 – 40%)
- National level accounting

Permanence


Atmospheric Concentration of GHGs
Time
Non-permanence
Baseline levels of atmospheric GHGs
Levels of GHGs in the atmosphere after a one-time reduction in emissions

Non-Permanence



Managing non-permanence

- **Management factors**: legal, financial, tenure, staff competency, and protection.
- Buffer reserves of actual carbon storage held (about 20 – 30%)
- Insurance policies (i.e. for 100 years) to pay for lost carbon
- Contracts with enforceable replacement
- Land trust (covenants)

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Part 4:

Reporting and Verification

Reporting and Verification

- **Reporting:** Under national approaches to REDD+, countries will need to report their reference levels and performance to a body defined by the UN

- **Verification:**
  - Projects: Need to be verified by an independent third party
  - National programs: Verification procedures still unclear

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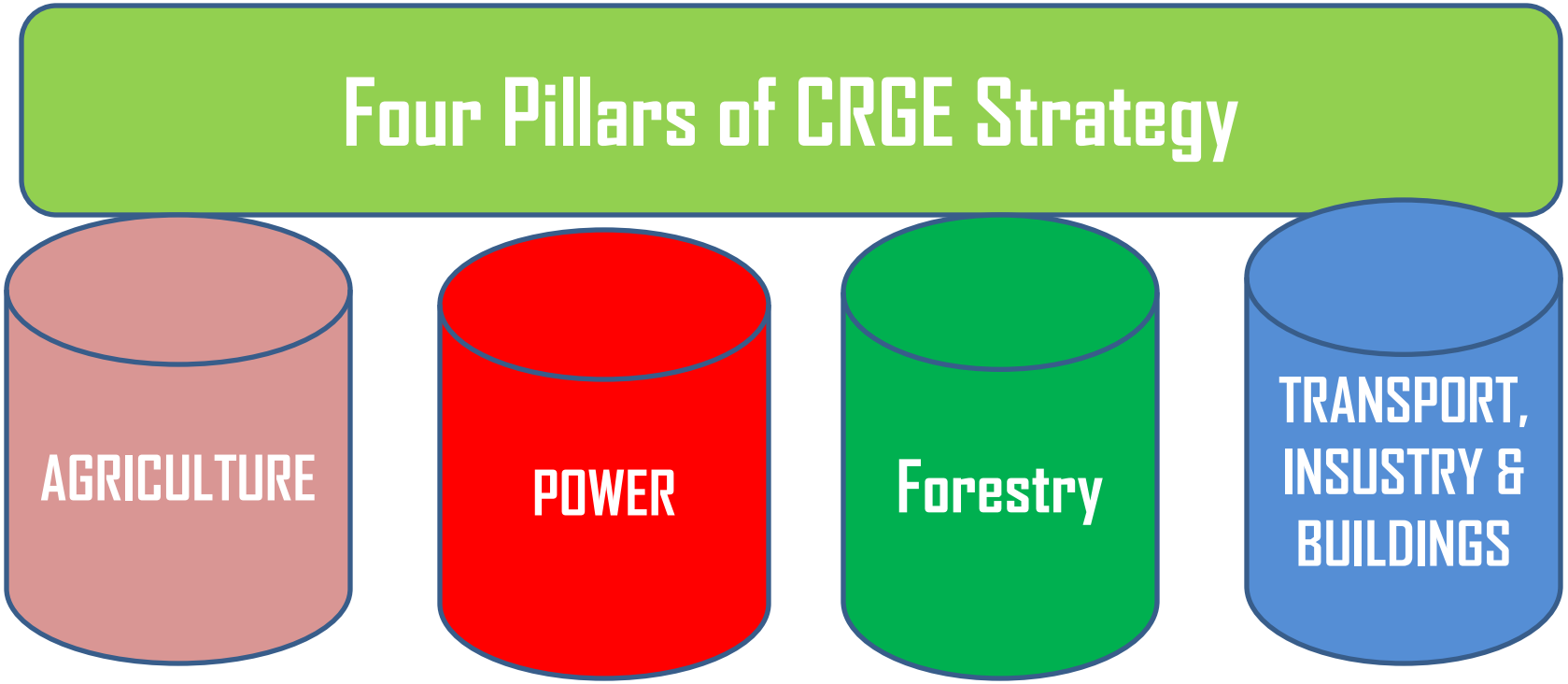
Ethiopia's REDD+ Readiness Process

National REDD+ Secretariat

Ethiopia's REDD+ is embedded in the CRGE

Plan: Building a carbon neutral green economy by 2030



Ethiopia's REDD+ is embedded in the CRGE

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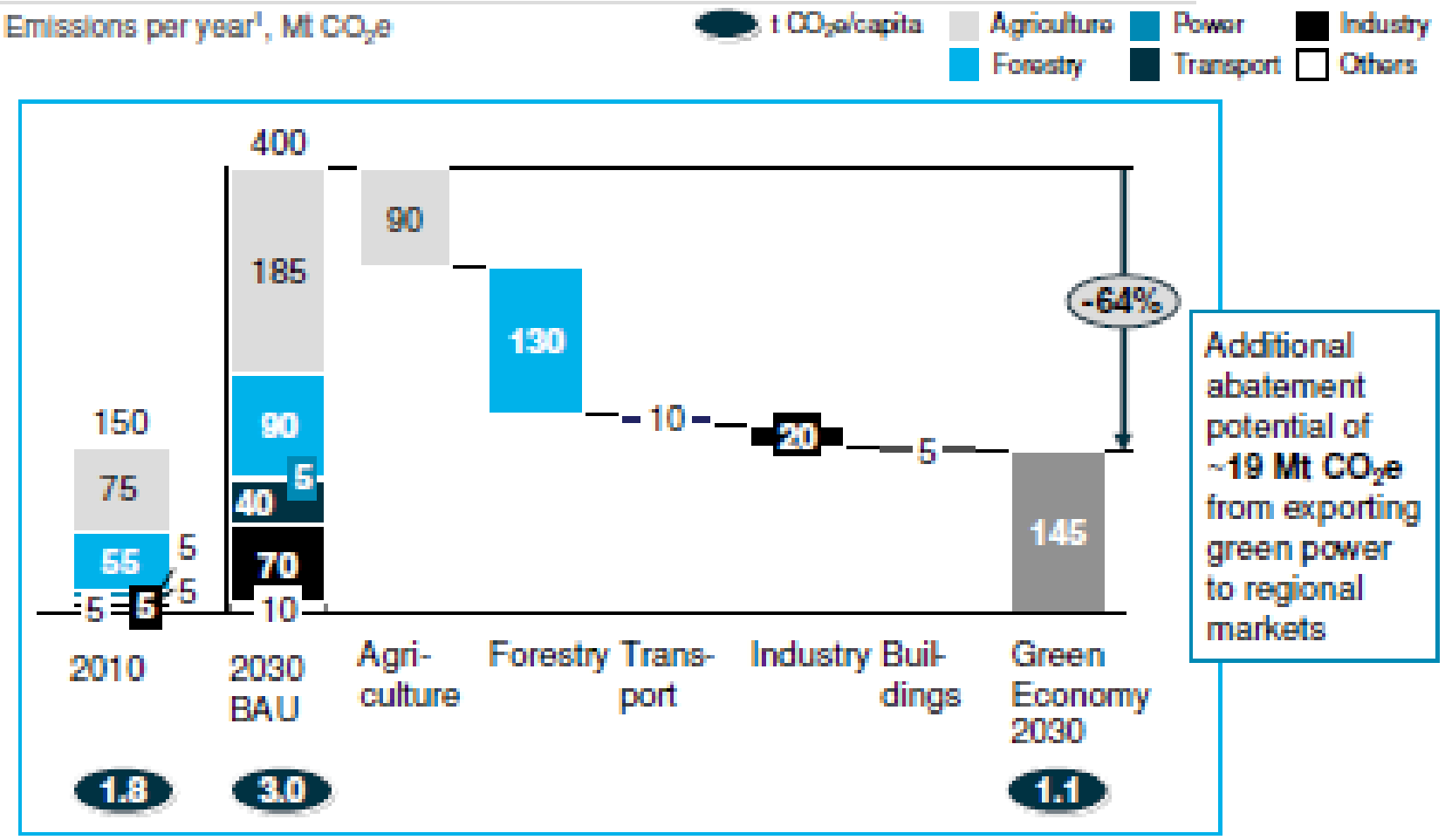
CRGE implementation could ensure a low-carbon economic development pathway, decreasing per capita emissions by 60%



Ethiopia's REDD+ is embedded in the CRGE

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Core assumptions for abatement initiatives (1/2)

Sectors	Abatement levers	Core assumptions (2030)	Gross abatement potential, Mt CO_2e
Forestry[1]	• Fuelwood-efficient stoves	• Household reach[2] (million): 15.7/0.3	34.3
	• LPG stoves	• Household reach[2] (million): 0/0.3	0.6
	• Biogas stoves	• Household reach[2] (million): 1.0/0.1	2.3
	• Electric stoves and mitads	• Household reach[2] (million): 1.0/up to 4.9	14.0
	• Afforestation/Reforestation	• Area in million ha: 2 (A) and 1 (R)	32.3
	• Forest Management (forest/woodland)	• Area in million ha: 2 (F) and 2 (W)	9.7
Soil[3]	• Lower-emitting techniques	• Household reach[2]: 13.2/0.0	40.1
	• Yield increasing techniques	• Only 1.7% growth in cropland needed under intensification to achieve 9.5% crops GDP growth due to 3.5% yield growth and 4.0% crops value growth	27.2
	• Irrigation	• Area in million ha: 1.4 (large scale); 0.3 (small scale)	10.6
Live-stock	• Value chain efficiency	• Household reach[2] : 19.5/0.0	16.1
	• Enhancing diversification of animal mix	• Target share of chicken: 30%	17.7
	• Mechanisation	• Household reach[2] : 13.2/0.0	11.2
	• Pastureland improvement	• Area in million ha: 5	3.0

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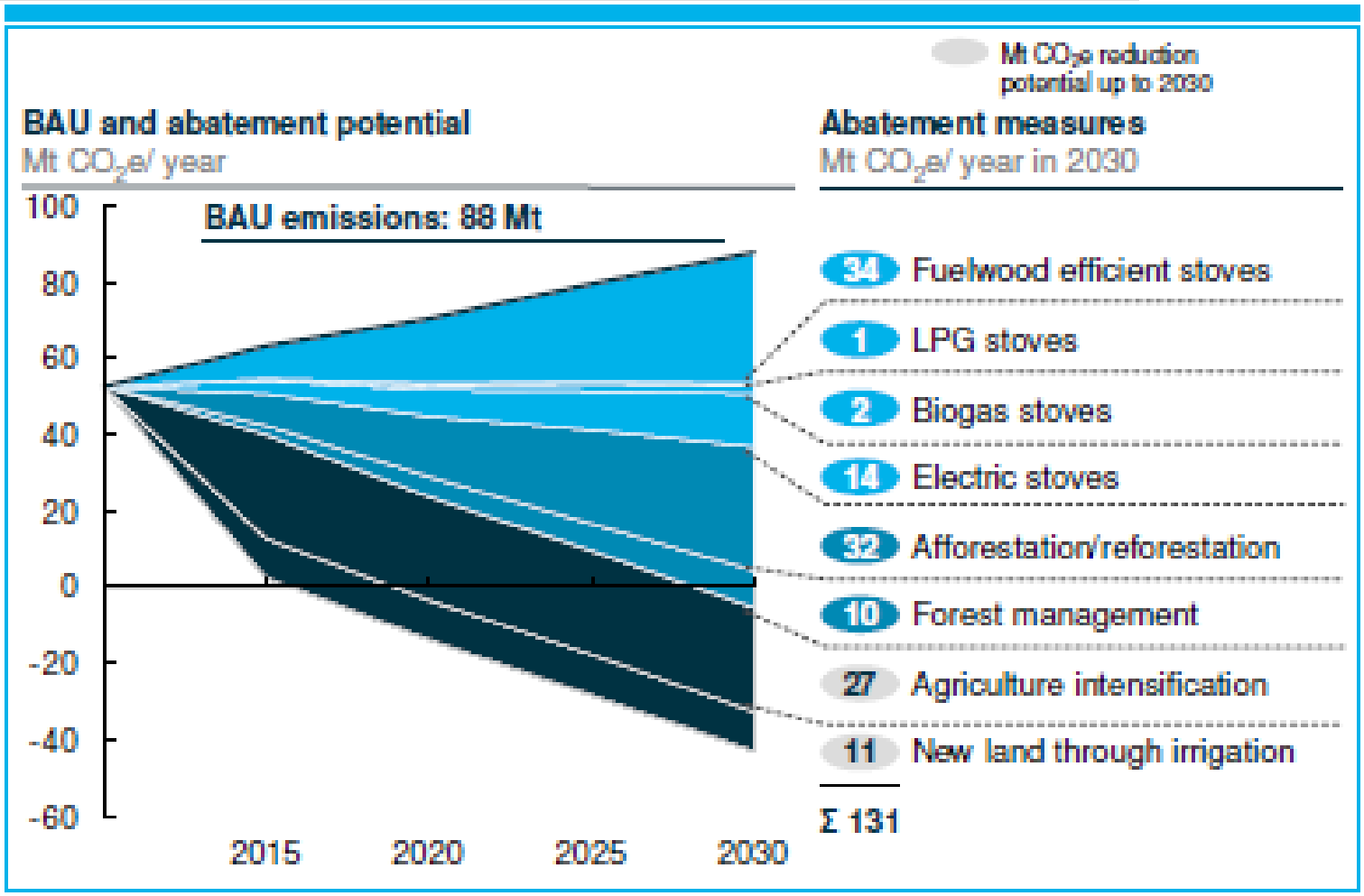
Forestry – Abatement and sequestration potential reaches 131 Mt CO_2e per year in 2030



Ethiopia's REDD+ is embedded in the CRGE

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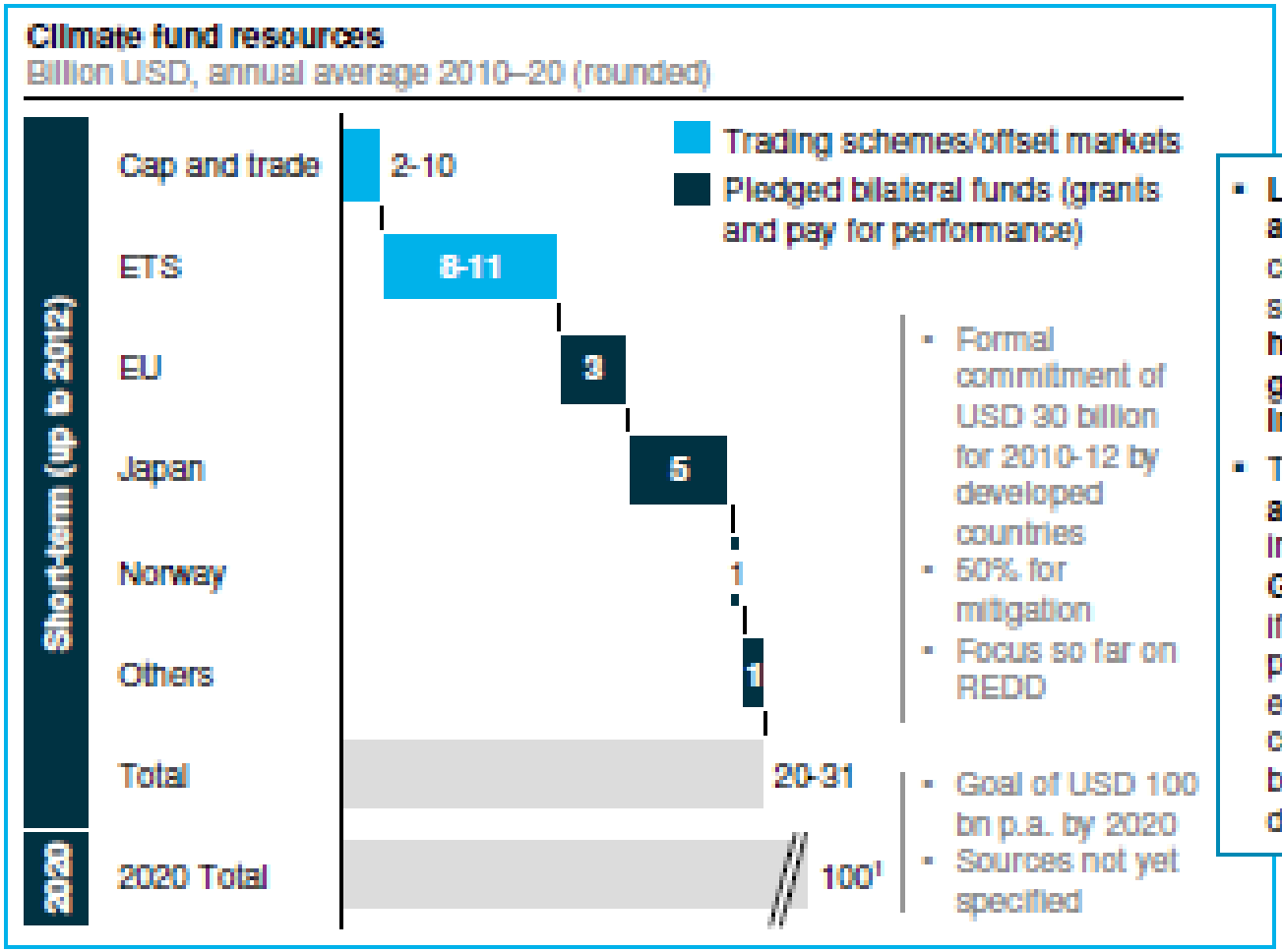
Ethiopia can have access to a vast pool of climate funds resources totalling at least USD 20 billion p.a.

ESTIMATION



- **Large funds are available** from climate finance schemes that could **help to finance green growth initiatives**
- These funds are **available only** for initiatives that **reduce GHG emissions**, i.e. if receiving party proves reduced GHG emissions as compared with business-as-usual development

Ethiopia's REDD+ Readiness

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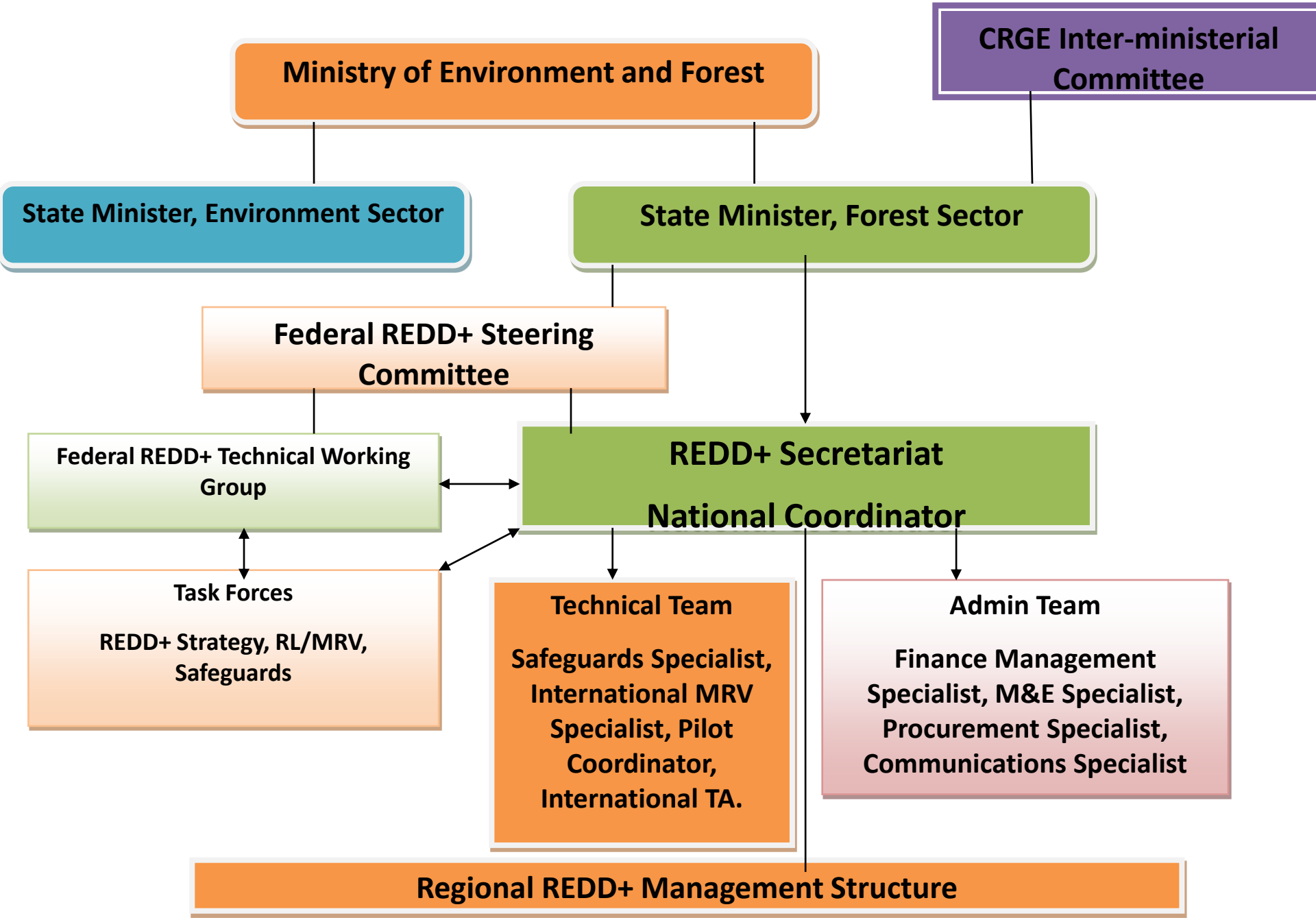
R-PIN (July 2008)

R-PP development (Apr 2010)

- Series of C & P (Apr – Oct 2010)
- Draft R-PP to FCPF
- R-PP re-submitted (May 2011)
- A readiness fund approved (Oct 2012)

REDD+ Readiness Launched (Jan 2013)


Ministry of Environment and Forest
CRGE Inter-ministerial Committee
State Minister, Environment Sector
State Minister, Forest Sector
Federal REDD+ Steering Committee
Federal REDD+ Technical Working Group
REDD+ Secretariat
National Coordinator
Task Forces
REDD+ Strategy, RL/MRV, Safeguards
Technical Team
Safeguards Specialist, International MRV Specialist, Pilot Coordinator, International TA.
Admin Team
Finance Management Specialist, M&E Specialist, Procurement Specialist, Communications Specialist
Regional REDD+ Management Structure

Ethiopia's REDD+ Readiness

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FEATURES OF ETHIOPIA'S REDD+

Scope:

REDD+

'+' aspect of REDD+ (A/R)

Principles:

Equity:

Effectiveness:

Transparency:

Accountability:

Commitment:

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Capacity Building

REDD+ Mgt Arrangements

Stakeholders C & P

REDD+ Strategy/SESA

Elements of REDD+ Readiness

REDD+ Piloting

Setting RL/REL

Creating Implementation Framework

Establishing MRV System

Where do we stand now?

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Management arrangements in place
(Federal: RSC, RTWG, 3 TF) (Regional: RRSC, TWG)

Multi-stakeholder consultations

Awareness Creation & Capacity building
(Electronic & Print materials, Workshops; ToT)

Technical studies
(Legal/institutional; Drivers of D&D, SESA/ESMF, RL)

Draft REDD+ Strategy

Where do we stand now?

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REDD+ Piloting
(Oromia REDD+ Pilot & 3 other Regional pilots)

Forest Inventory underway

Consultation & Participation Plan

National Forest Definition
(near completion)

Mid-term Evaluation in March 2015

Ethiopia's REDD+ Readiness Milestones

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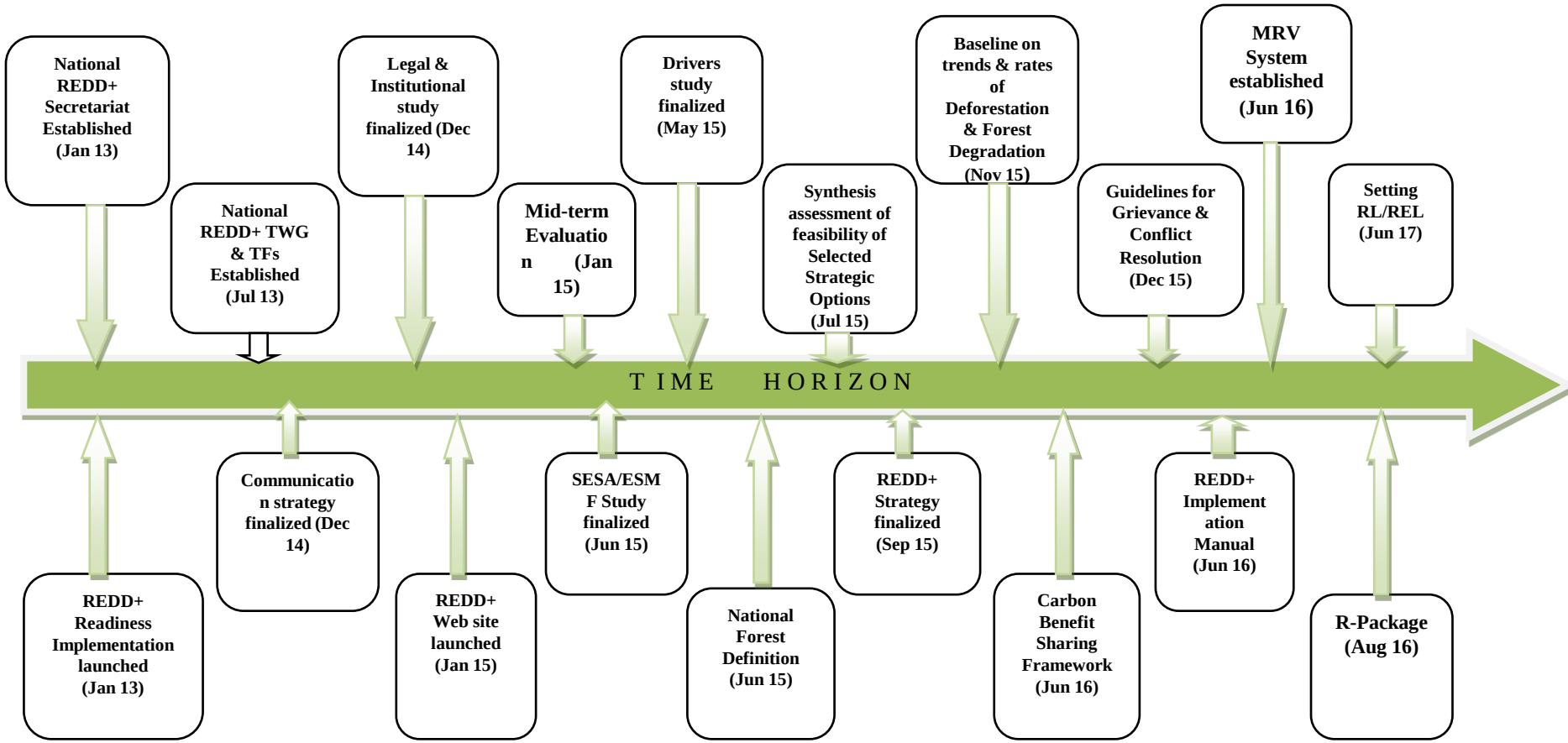

Readiness Timeline

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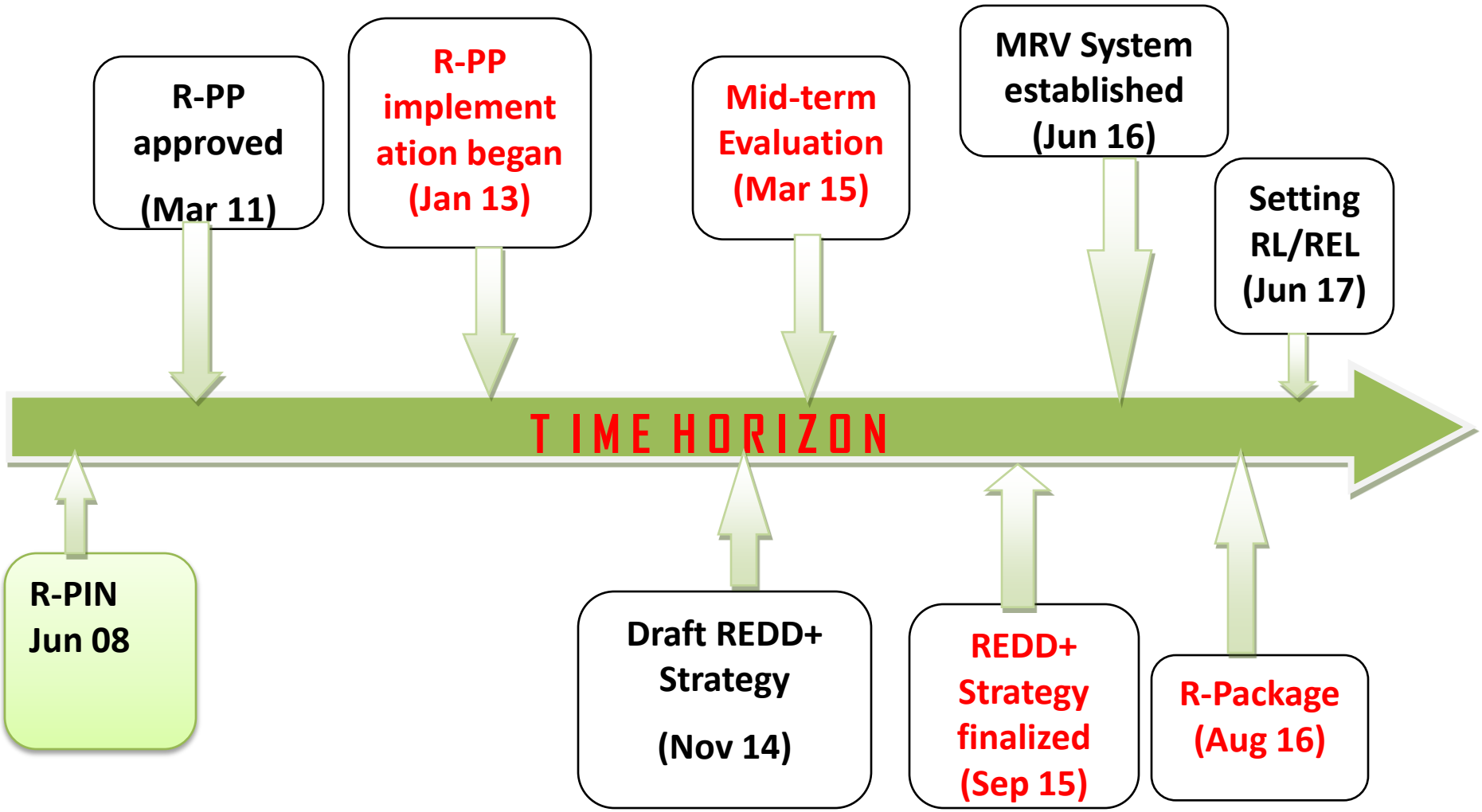

How do we work with Academia?

Academia – Key stakeholders

Provide Technical Support

Training & Capacity Building

Research on REDD+ Issues

Integrating REDD+ into University Curricula

REDD+ concepts and methods into relevant university programmes

Engage university networks as strategic platforms and centers of excellence for mainstreaming REDD+ education, research, development

What are the challenges?

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- Limited in country technical capacity
- Less effective inter-sectoral coordination
- REDD+ implementation is a protracted process
- Listless climate negotiations and limited commitment

Take Home Message

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→REDD+ is an integral part of Ethiopia's CRGE strategy

→ Forestry (through REDD+) provides 50% of emission abatement potential in Ethiopia

→ REDD+ implementation offers an opportunity for policy/legal review and an incentive for forest conservation & management

→ REDD+ Readiness process in Ethiopia will put in place the required technical capacity, institutional arrangement and REDD+ implementation strategy


Thank you for listening!!!