

**MINISTRY OF ENVIRONMENT AND FOREST
NATIONAL REDD+ SECRETARIAT**

REDD+ & REDD+ Readiness Implementation in Ethiopia

REDD+ Lecture Series



National REDD+ Secretariat
Committed to making Ethiopia ready
to the global REDD+ mechanism

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**At
HAWASSA UNIVERSITY**

WONDO GENET COLLEGE OF FORESTRY & NATURAL RESOURCES

JANUARY 30/2015

OUTLINE

Background

- Climate Change
- Mitigation Schemes

The REDD+ Mechanism

- Fast Track Implementation
- Phased Approach of REDD+

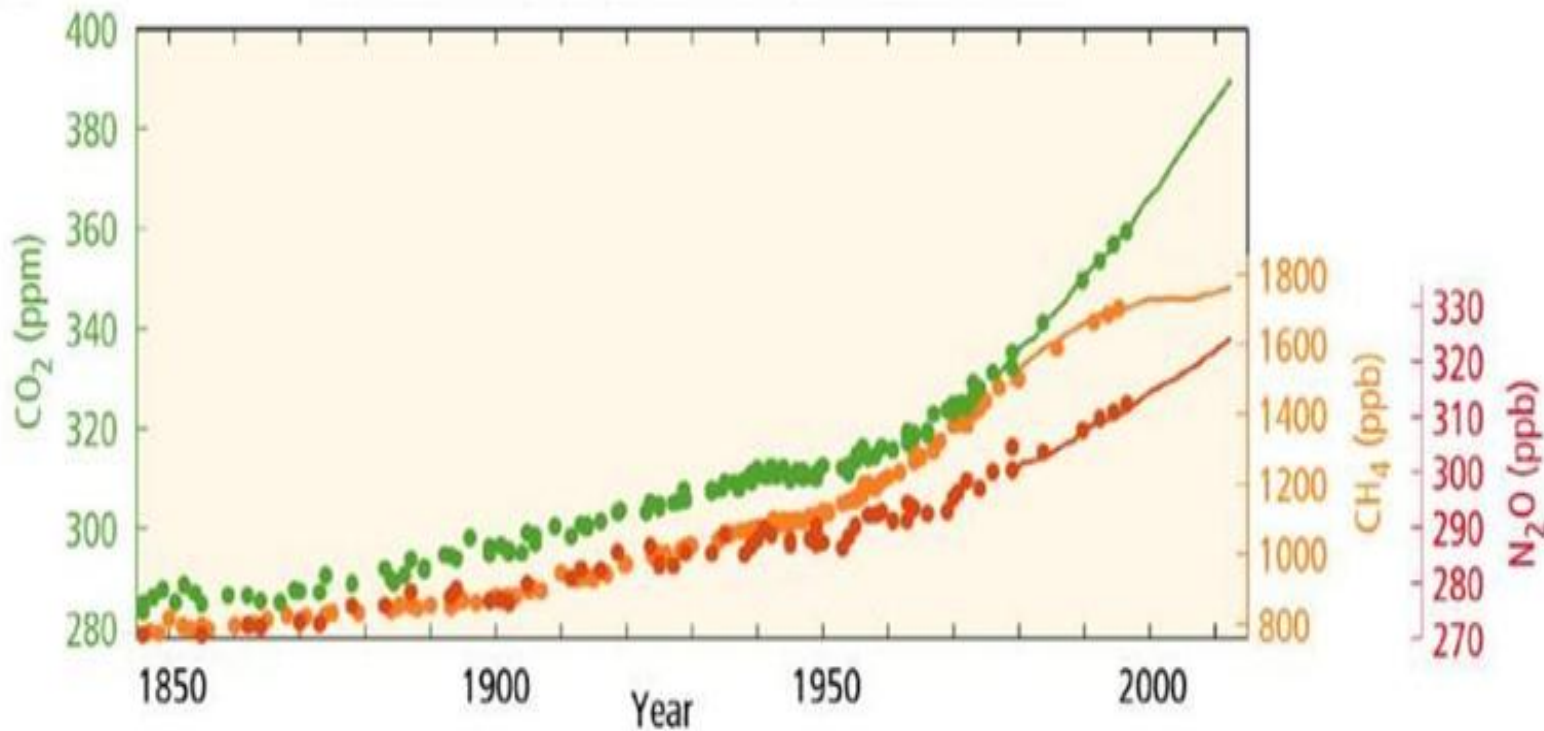
Ethiopia's REDD+ Readiness

- REDD+ and CRGE
- Where are we now?

Challenges & key messages

Climate Change

Greenhouse gases continued to climb:
Atmospheric CO₂ concentration hit a global average of 395.3 ppm for the year 2013



Climate Change

Greenhouse Gasses	GWP (relative to CO ₂)	Industrial Sources	Land Use Sources
Carbon dioxide (CO ₂)	X1	Fossil fuel and cement	Deforestation and burning of forests
Methane (CH ₄)	X21	Landfills, coal mining, natural gas	Conversion of wetlands; Rice paddies; Livestock production
Nitrous oxide (N ₂ O)	X310	Fossil fuel; Nitric acid production	Fertilizer use; Burning of biomass
Hydrofluorocarbons (HFCs)	X140-11,700	Industrial processes	---
Per-fluorocarbons (PFCs)	X6500-9200	Industrial processes	---
Sulphur hexafluoride (SF ₆)	X23,900	Electrical transmission and distribution systems	----

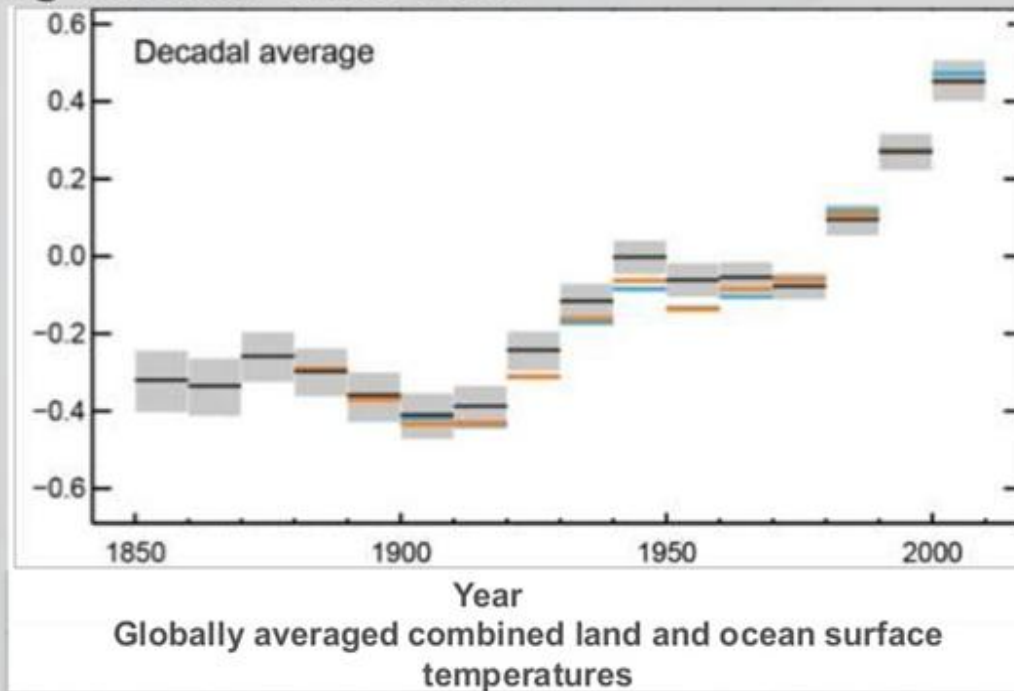
Climate Change

Four major independent datasets show:

2013 was among the warmest years on record (2nd to 6th)

Temperatures continue to rise

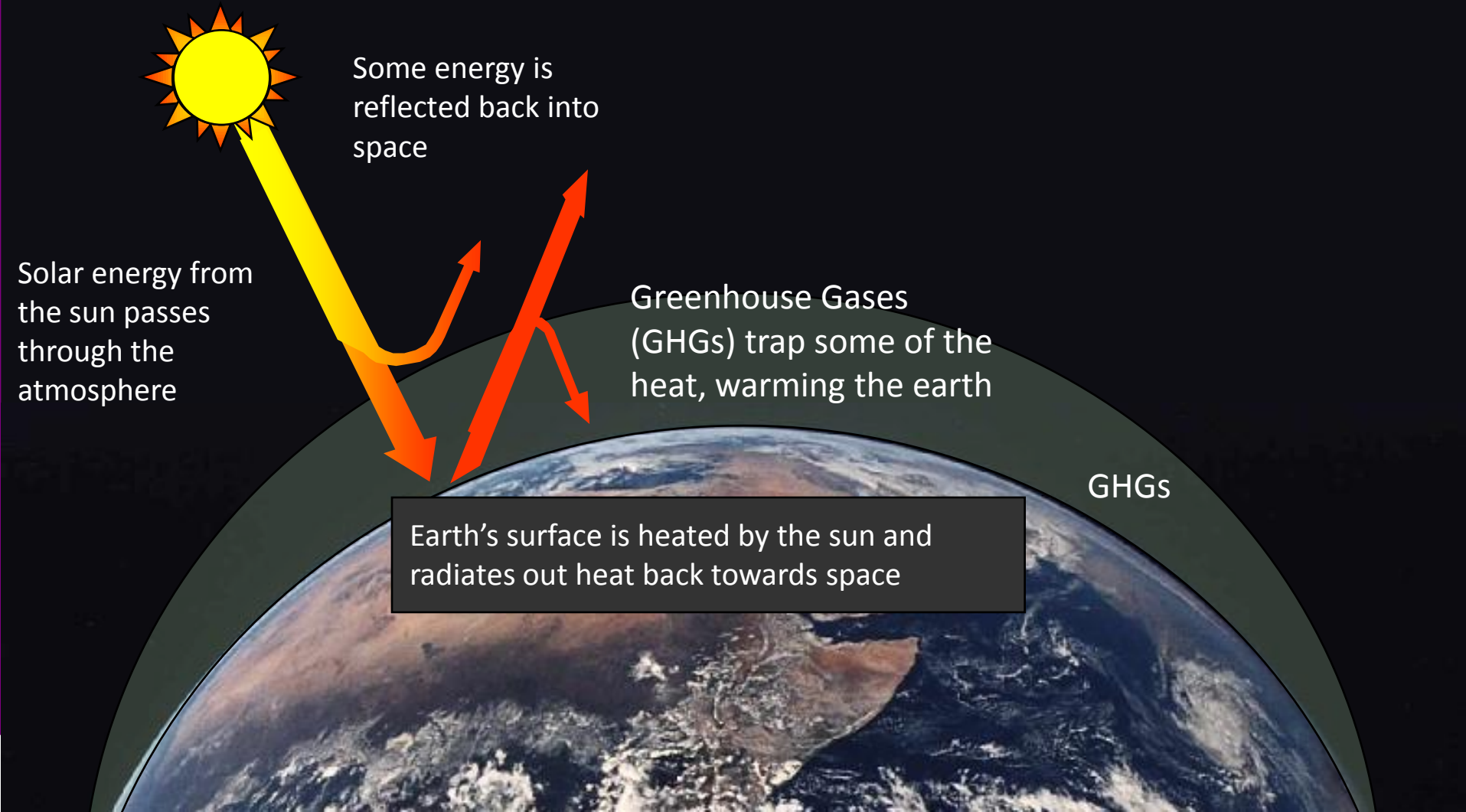
Each of the past 3 decades has been successively warmer than the preceding decades since 1850



The Scientific Evidence

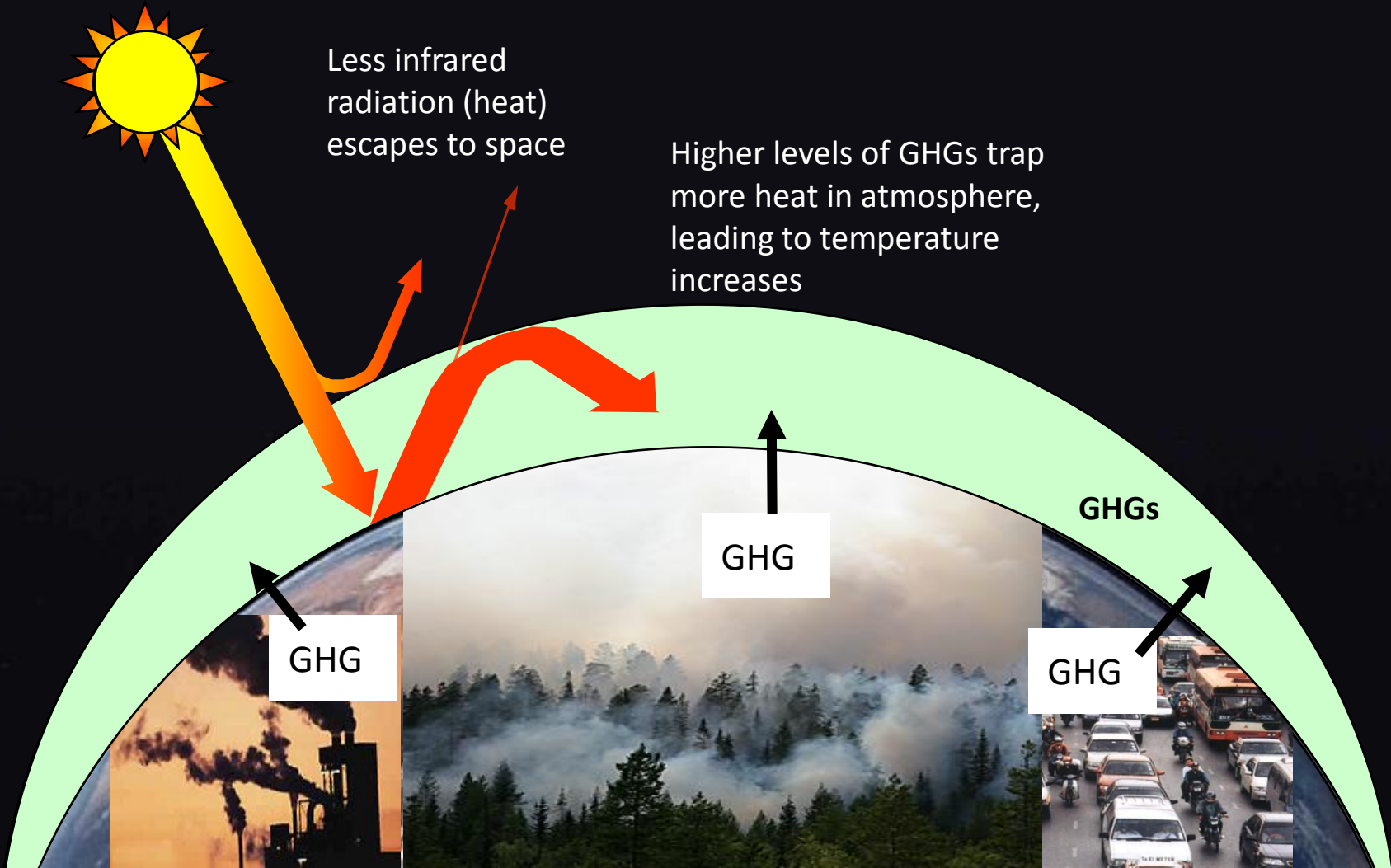
What GHGs Do to Global Temperature?

The natural greenhouse effect



The Scientific Evidence

The Enhanced Green House Gas Effect



Climate Change

Atmosphere

- Increased CO₂ conc. & other GHGs
- Changes in cloud cover
- Increasing tropospheric water vapour

Near Surface

- Rising **global near surface temperature**, surface humidity; Warming of sea surface

Land

- Large **changes in precipitation**
- Frequent warm days and nights.
- Decreasing snow cover in most regions

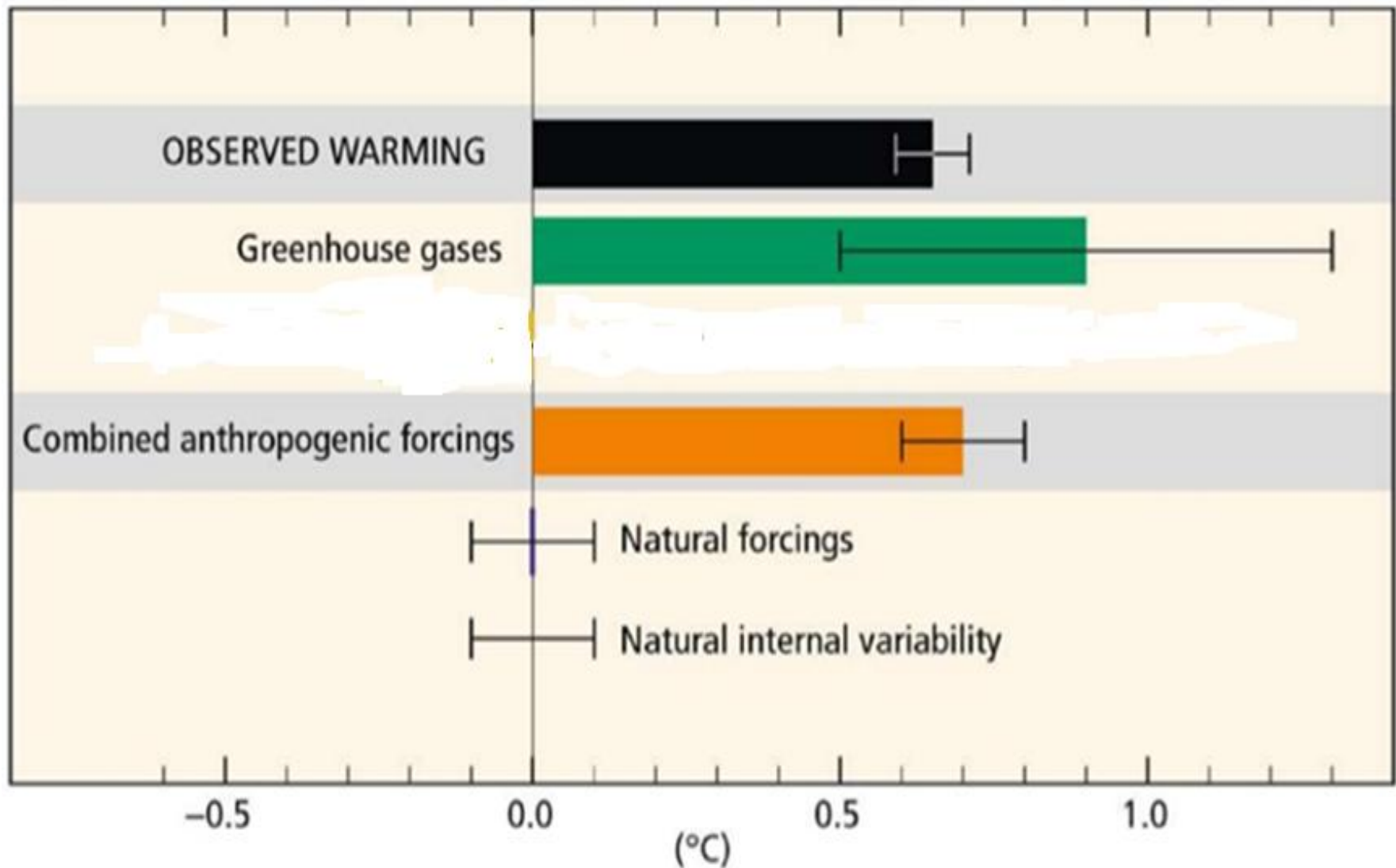
Ocean

- Increasing rates of global **mean sea level rise**
- **Ocean Warming**
- Acidification of the oceans

Cryosphere

- **Shrinking** annual average Arctic **sea ice extent**
- **Glacier retreat**

Climate Change



Climate Change

Sources of emissions

Energy production remains the primary driver of GHG emissions



2010 GHG emissions

Mitigation Schemes

Mitigation Measures



More efficient use of energy



Greater use of low-carbon and no-carbon energy

- Many of these technologies exist today



Improved carbon sinks

- Reduced deforestation and improved forest management and planting of new forests
- Bio-energy with carbon capture and storage

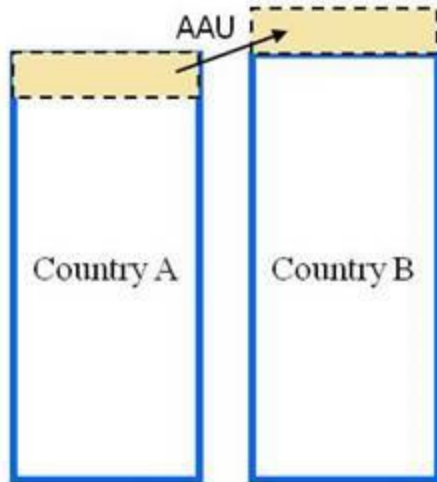


Lifestyle and behavioural changes

Mitigation Schemes

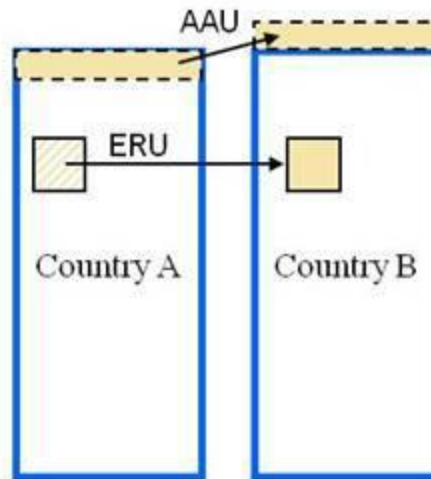
Emission Reduction under the KP Flexible Mechanisms

International Emissions Trading



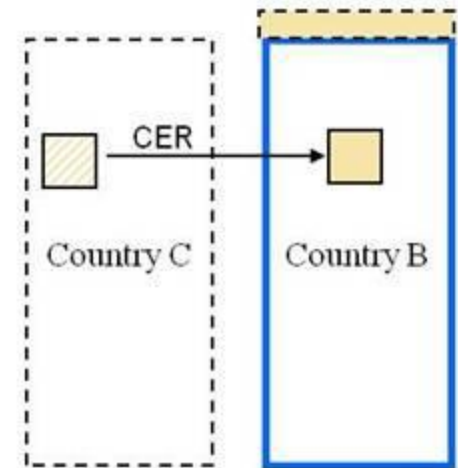
Governments sell unused shares of their emissions budgets to other Annex I nations that have exceeded their budget

Joint Implementation (JI)



Emission reductions from specific projects are transferred to another Annex I country

Clean Development Mechanism (CDM)



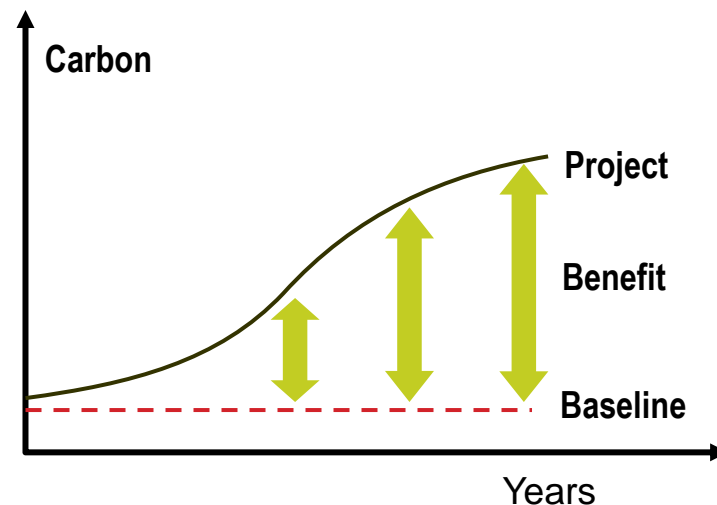
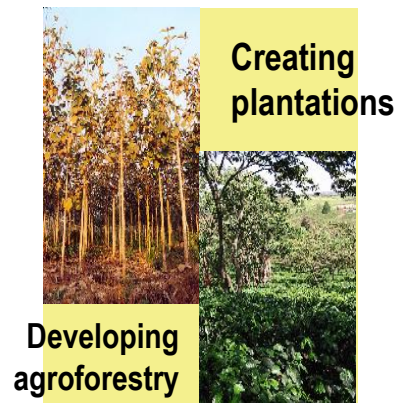
Emission reductions from specific projects in a non-Annex I country are transferred to an Annex I country

Mitigation Schemes

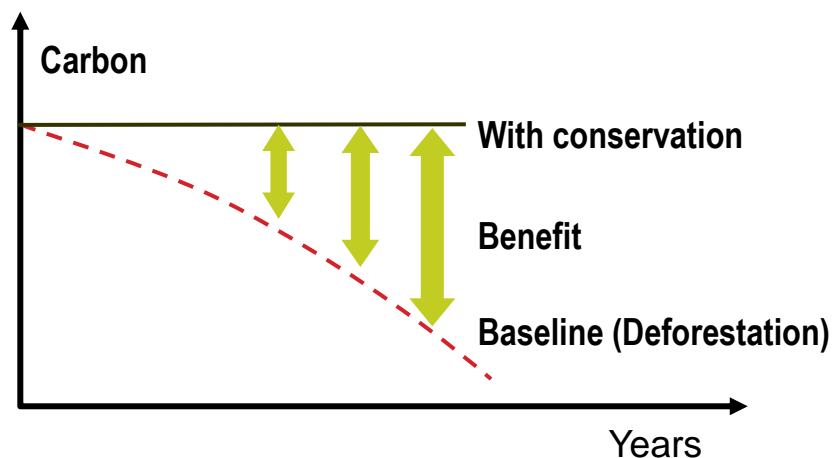
- COP 11 (2005) Emissions from land use change found to be too large to ignore
- Deforestation accounts for ~16% of global GHG emissions
- In developing countries **Half of mitigation potential** is in the “Agriculture, Forestry and Other Land Use” (AFOLU)
- Over **a fifth** of global mitigation potential is in REDD+

How can the forest sector mitigate climate change?

■ Increasing carbon stocks



■ Avoiding losses of carbon stocks



■ Reducing emissions caused by biomass energy usage

What is REDD+ all about?

- COP 13 - Bali Road Map (2007)

REDD+:

comprises local, national and global actions whose primary aim is to reduce emissions from D & FD and enhance forest carbon stocks in developing countries.

What is REDD+ all about?

REDD+: Policy approaches & incentive mechanism

REDD+ implementation requires enabling

- Policy framework
- Legal & regulatory framework
- Institutional arrangements
- Full & Effective stakeholder Consultation & participation
- Technical capacity
- Investment (**Finance**)

Costs of REDD+

- **Global estimate vary**
- 15% reduction in emissions from deforestation (\$20 billion 2010-2015)
- 50% reduction in emission from deforestation (12-34% billion until 2020)
- **Main sources of Funding**
 - Public funding (ODA, allocation of a portion of the revenue from cap-and-trade systems; through taxes and levies)
 - Market finance (Not Yet)

Fast Track Mechanisms

In 2007



47 developing countries (18 in Africa, 18 in Latin America and the Caribbean, and 11 in Asia)

FCPF: is a partnership of 47 REDD+ countries, participants & 18 financial contributors, plus observers. It is comprised of two funds:

The **Readiness Fund**: supports development of the necessary policies, strategies and systems to address drivers of deforestation and forest degradation.

The **Carbon Fund**: aims to purchase Emissions Reductions (ERs) from five programs of significant scale.

Fast Track Mechanisms



Currently supports 47 partner countries spanning Africa, Asia-Pacific & Latin America, of which 16 are receiving **support to National Programme activities.**

Phased approach for REDD+

Meridian (2009) & COP16 (UNFCCC 2010)

Phase 1 – the readiness phase focuses on the

- development of national strategies or action plans, policies and measures, capacity building and demonstration activities.

Phase 2 – Implementation phase focuses on

- National policy reforms; intervention measures, as well as on demonstration activities that use results based payment mechanisms.

Phased approaches for REDD+

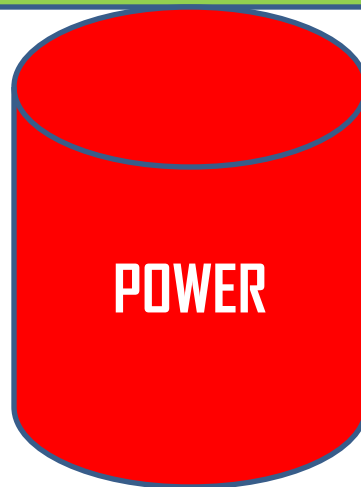
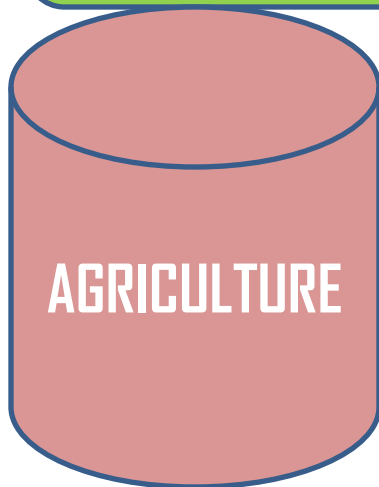
- **Phase 3 – transitioning into Phase 3 will involve**

moving to more direct results-based actions, i.e. emissions and removals that should be fully measured, reported and verified, with payments based on these results.

Ethiopia's REDD+ is embedded in the CRGE

Plan: Building a carbon neutral green economy by 2030

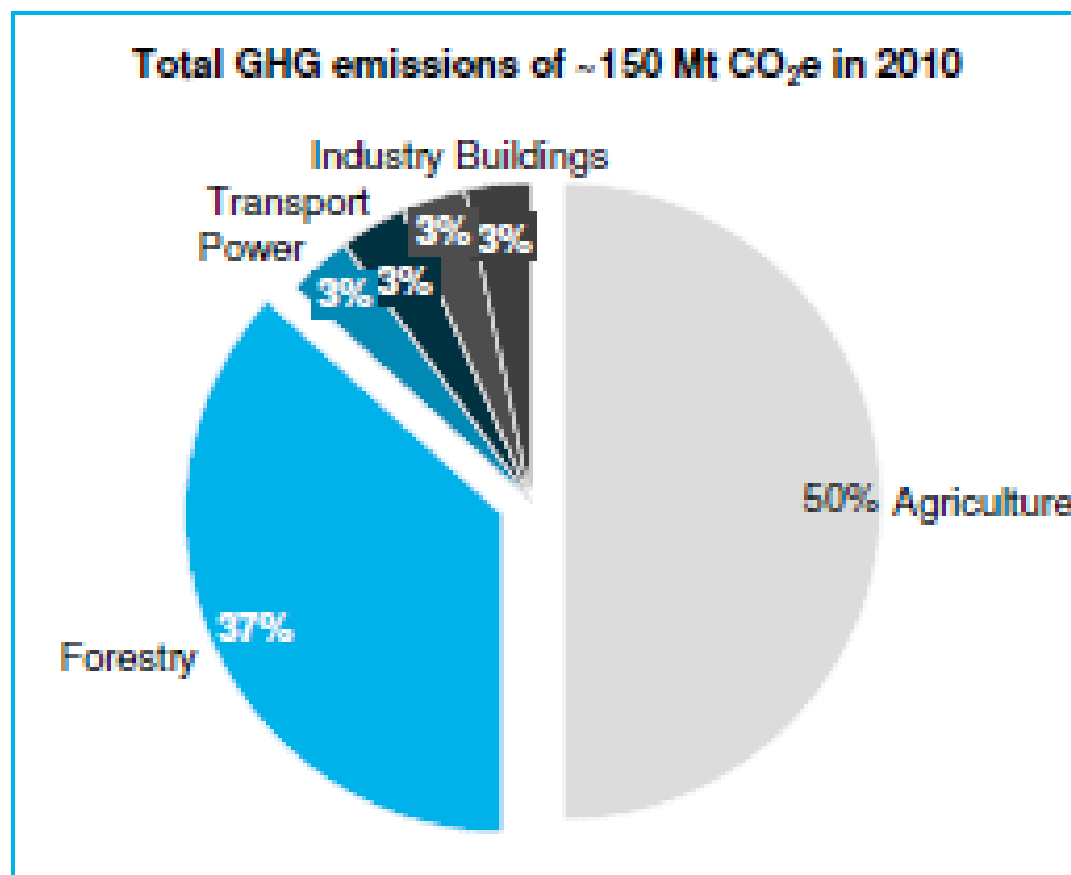
The Four Pillars of Ethiopia's Climate Resilient Green Economy Strategy



REDD+ is embedded in the CRGE

More than 85% of GHG emissions in Ethiopia come from
forestry and agriculture

Share of GHG emissions, 2010

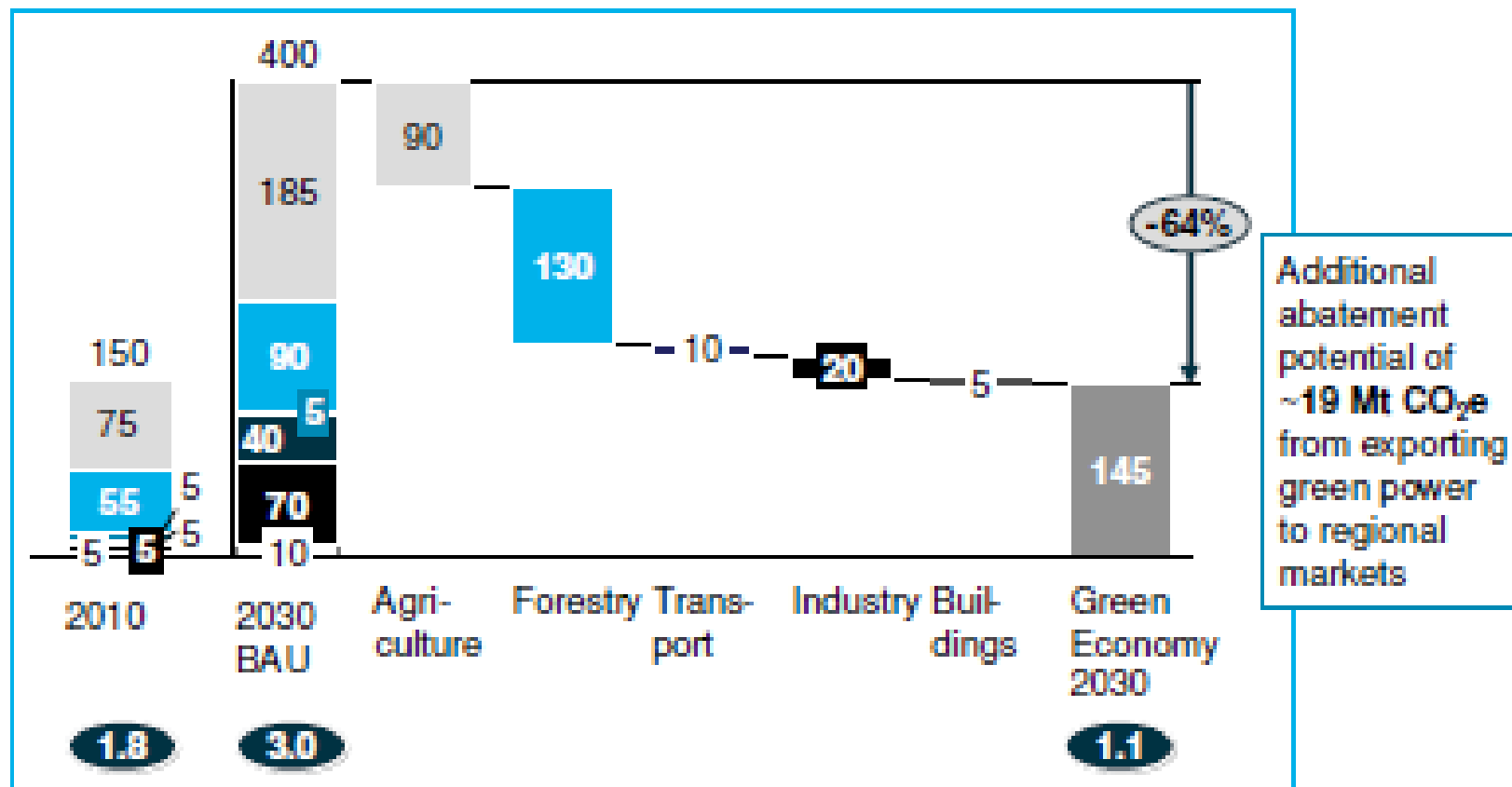


REDD+ is embedded in the CRGE

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

Emissions per year¹, Mt CO₂e

1 t CO₂e/capita
Agriculture Power Industry
Forestry Transport Others



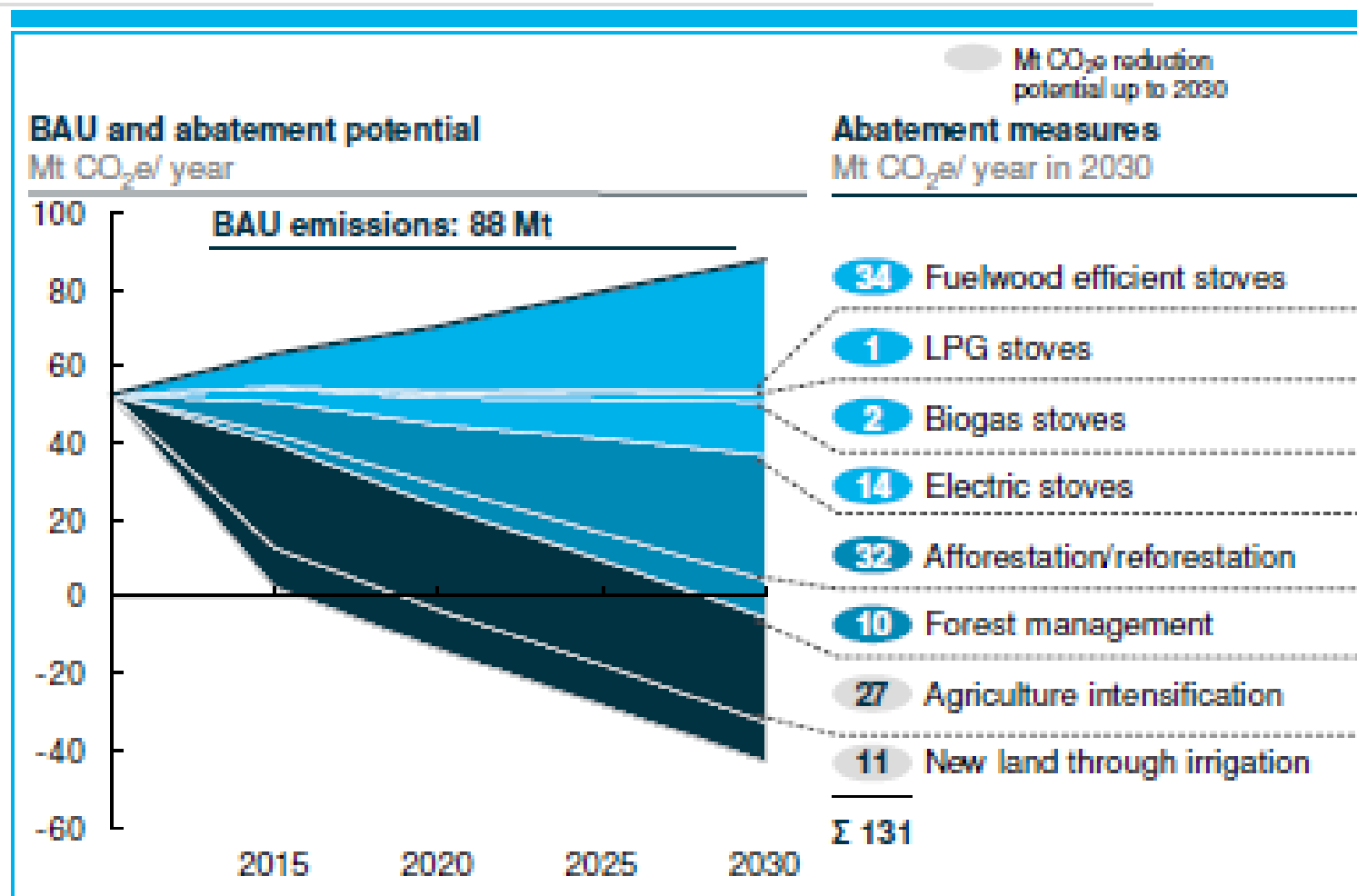
REDD+ is embedded in the CRGE

Core assumptions for abatement initiatives (1/2)

Sectors	Abatement levers	Core assumptions (2030)	Gross abatement potential, Mt CO ₂ e
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

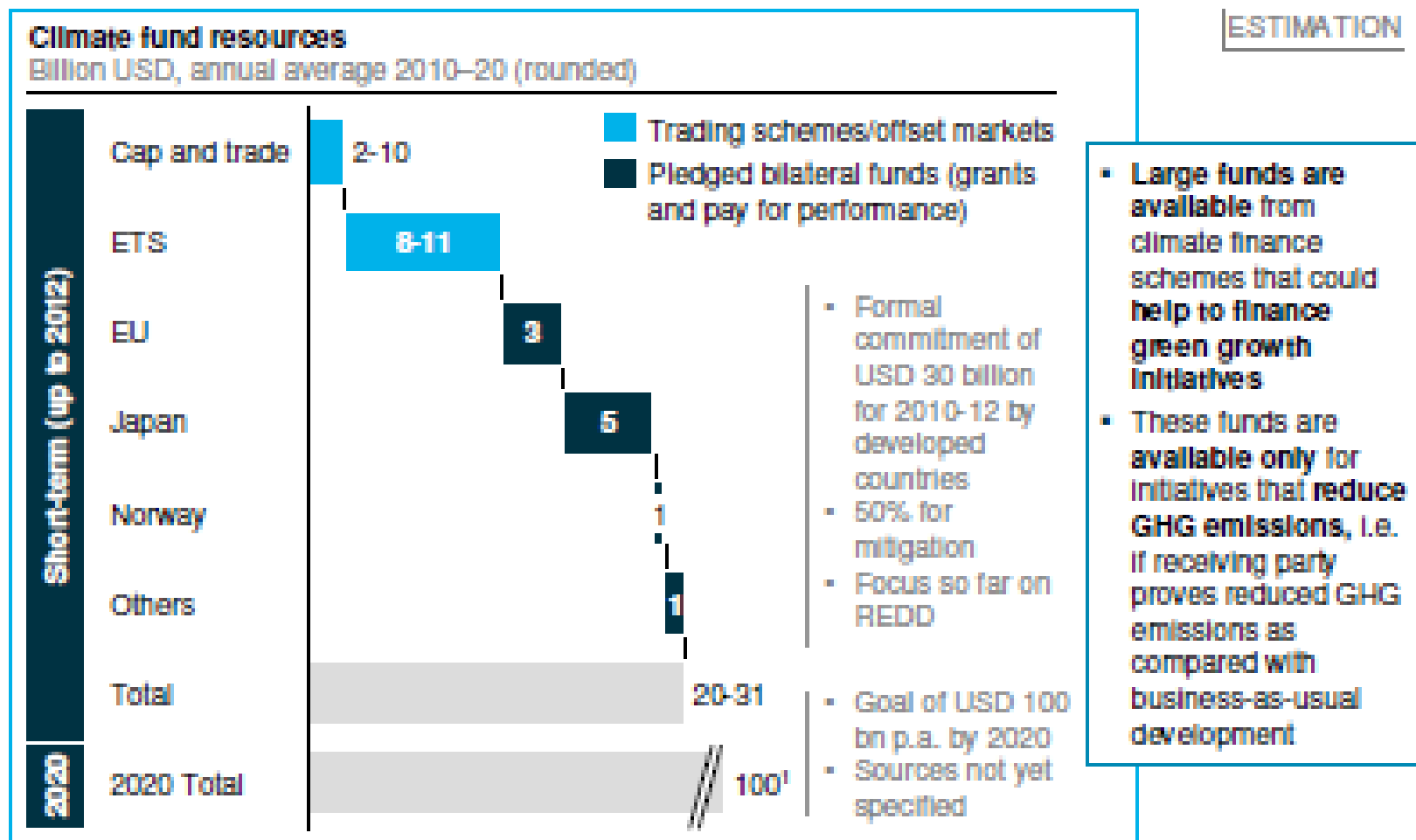
REDD+ is embedded in the CRGE

Forestry – Abatement and sequestration potential reaches
131 Mt CO₂e per year in 2030



REDD+ is embedded in the CRGE

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



Ethiopia's REDD+ Readiness

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)

Ethiopia's REDD+ Readiness

FEATURES OF ETHIOPIA'S REDD+

Scope:

REDD+

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

- **Principles:**

Equity:

Effectiveness:

Transparency:

Accountability:

Commitment:

Key elements of REDD+

- Capacity building
- Consultation and participation of stakeholders
- Establishing the National REDD+ Management body
- Developing the National REDD+ Strategy & associated Social and Environmental Safeguards
- Setting the Reference Emissions levels/Reference Levels/Baseline Emissions
- Establishing the Measurement, Reporting and Verification (MRV) system
- Creating REDD+ implementation framework (enablers)
- REDD+ Piloting

Where do we stand now?

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?

Piloting

(Oromia REDD+ Pilot & 3 other Regional pilots)

Forest Inventory underway

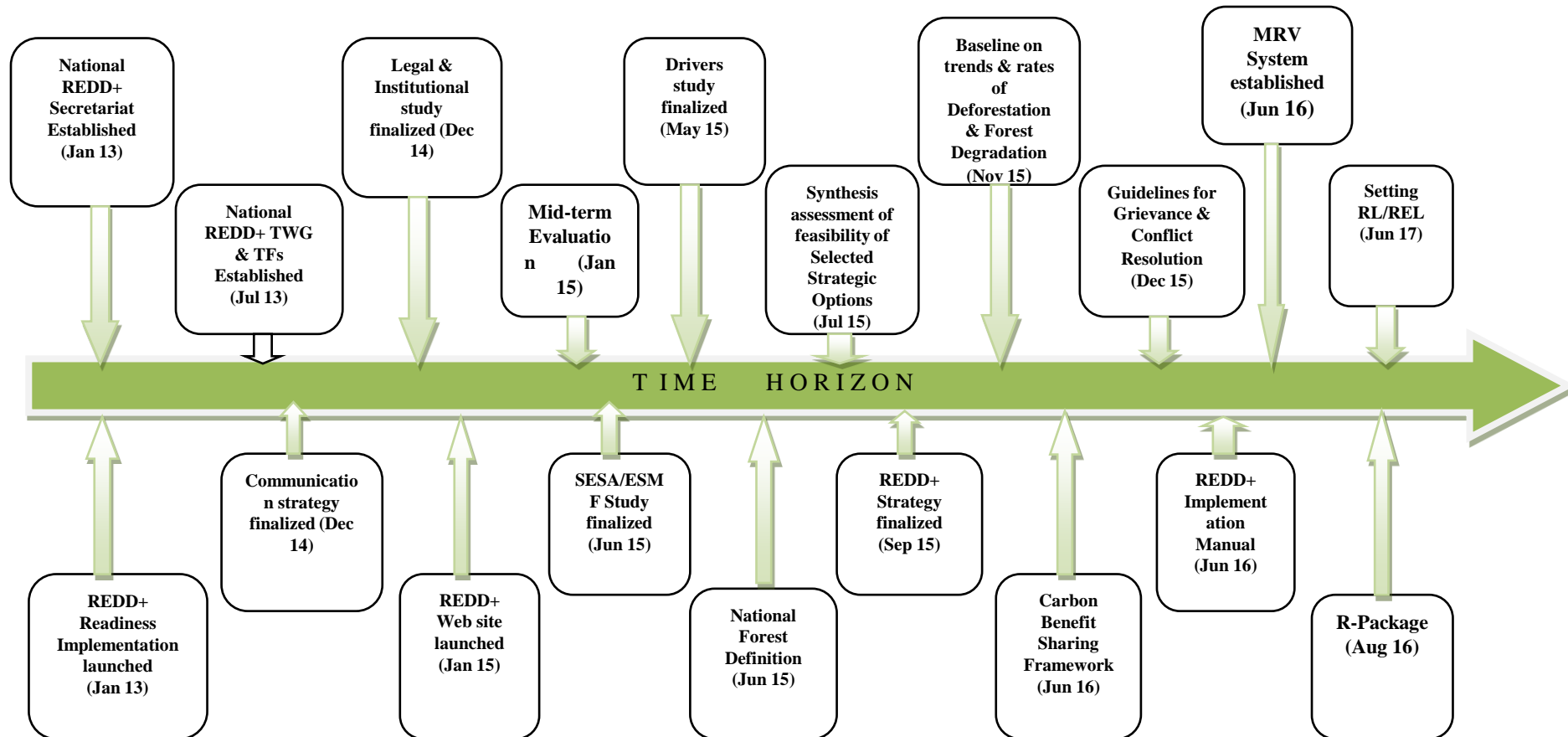
(Ground Truthing will soon start)

National Forest Definition

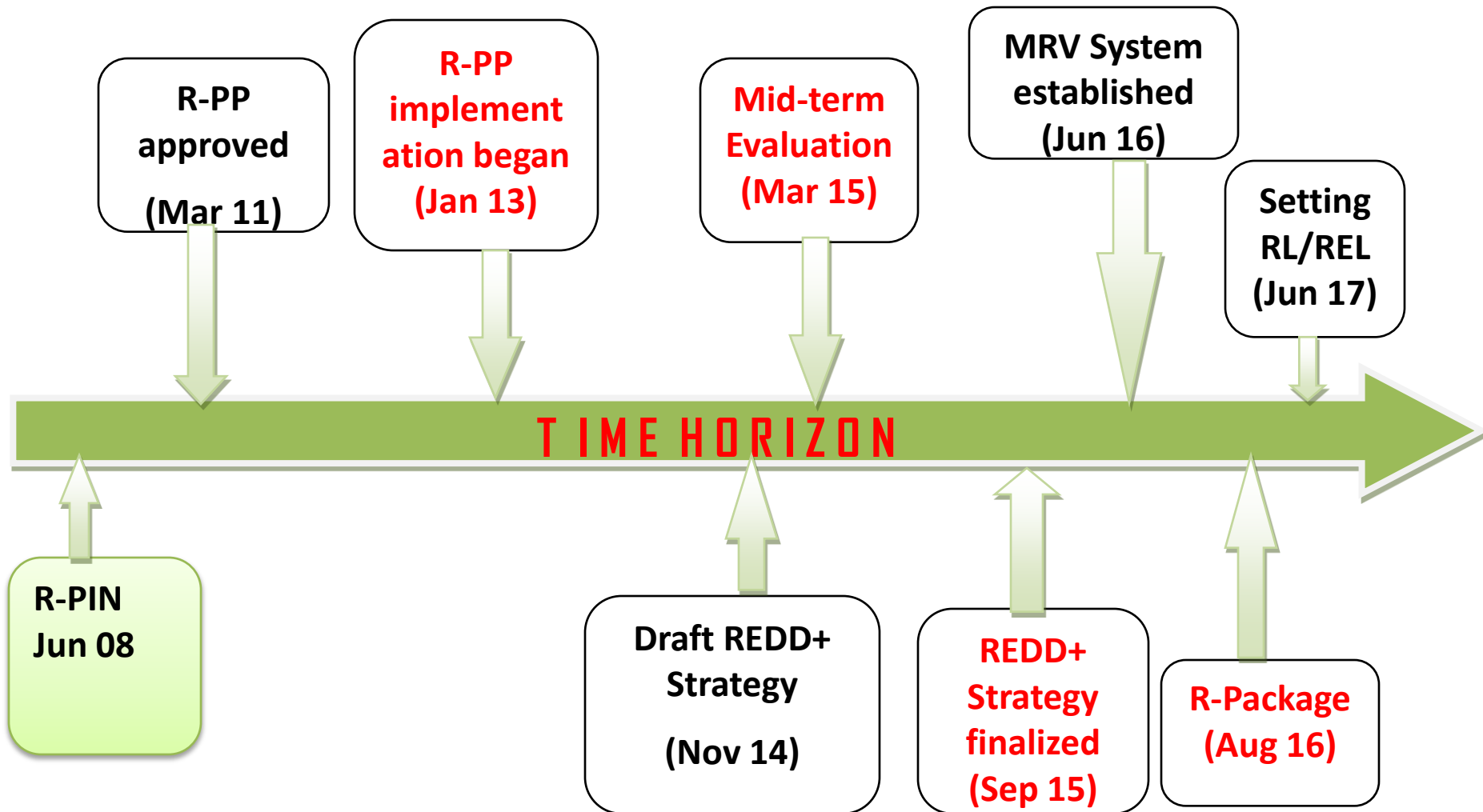
(REDD-MRV defn. 0.5ha, 20% canopy cover and >2m height)

Mid-term Evaluation in September 2015

Ethiopia's REDD+ Readiness Milestones



Readiness Timeline



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?

- 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














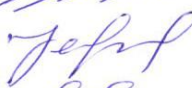
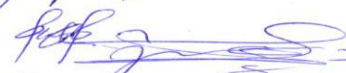
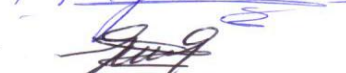







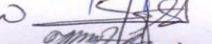
- REDD+ is an integral part of Ethiopia's CRGE strategy
- Forestry (through REDD+) provides 50% of emission abatement potential in Ethiopia
- REDD+ implementation offers an opportunity for policy/legal review and an incentive for forest conservation & management
- REDD+ Readiness process in Ethiopia will put in place the required technical capacity, institutional arrangement and REDD+ implementation strategy










THANKS A LOT!!

REDD and REDD+ Readiness Implementation Ethiopia

REDD+ Lecture Series

Wondo Genet College of Forestry, Hawassa University,
January 30/2015

#	Name	Signature
1	Fantaw Yimer	
2	melaku Bekele	
3	Genere Assife	
4	Bernam Tenete	
5	Hafte Mebrahten	
6	Yemiru Tsegaye	
7	Mamo Kebede	
8	Tadele Tewaie	
9	Kebede Wolica	
10	Zerihun Asrat	
11	Biruk Luisege	
12	Megersa Debele	
13	Dong-Gill KMH	
14	Zenebe Mekonnen	
15	Denabo Bello	
16	Nega Charlie	
17	Testare Molla	
18	MEKOYA MAMO	
19	Aschalew Aduza	
20	Tsiyon Asfaw	
21	Wainkwa Chia Rogers	
22	Bamiaku Ayenew	
23	Yibeltal Getalieu	
24	Solomon Shiferaw	

	Name	Sign
26.	Abera Tilahun	
27.	Teshale W. Ammanuel	
28.	Misraik Tamir	
29.	Beretet Roba	
30.	Solomon Chufamo	
31	Bezashwork Melaku	
32	Mohammed Ali	
33	Muligela Tesf	
34	Göctem Takele	
35	Abraham Beley - - -	