

# Centre for Science and Environment Training Programme for Indian Foreign Service Probationers

## "Climate Action through Forestry and REDD+"

New Delhi

12 May 2015

*Jagdish Kishwan*

*Chief Advisor, Policy  
Wildlife Trust of India*



Chief Negotiator for REDD+, Government of India  
Former Director General, Indian Council of Forestry Research and Education and  
Former Chancellor, FRI University

# Organization of Presentation

- ❑ Forests for communities and nature
- ❑ Forest sector in adaptation and mitigation
- ❑ IPCC, AR5: 2014- forests and goal of  $<2^{\circ}\text{C}$  increase
- ❑ REDD- plus in UNFCCC COPs
- ❑ REDD+ in Paris agreement
- ❑ Low carbon inclusive growth for India
- ❑ Communities' contribution in mitigation

**Forests in service of communities and nature**

**Carbon one, but not most  
important forest  
ecosystem service**

# Forest Sector in Climate Action

✓ Mitigation

✓ Adaptation

# Forest Sector in Climate Action: Adaptation

- Self adaptation
  - SFM: conserve biodiversity, avoid monocropping, fire control
  - Wildlife: maintain continuity, corridors
  - Fires: maintain firelines, control burning

# Forest Sector in Climate Action: Adaptation

- **People's adaptation**
  - Soil conservation, helps reduced siltation and longer hydel power generation
  - Bioenergy supply to supplement power/heating energy
  - Forest food more adapted to climate change than agriculture, supplement food supply, support livelihoods
  - Mangroves as bioshields against storms and inundation

# Forest Sector in Climate Action



# Mitigation

**Source  
Or Sink**

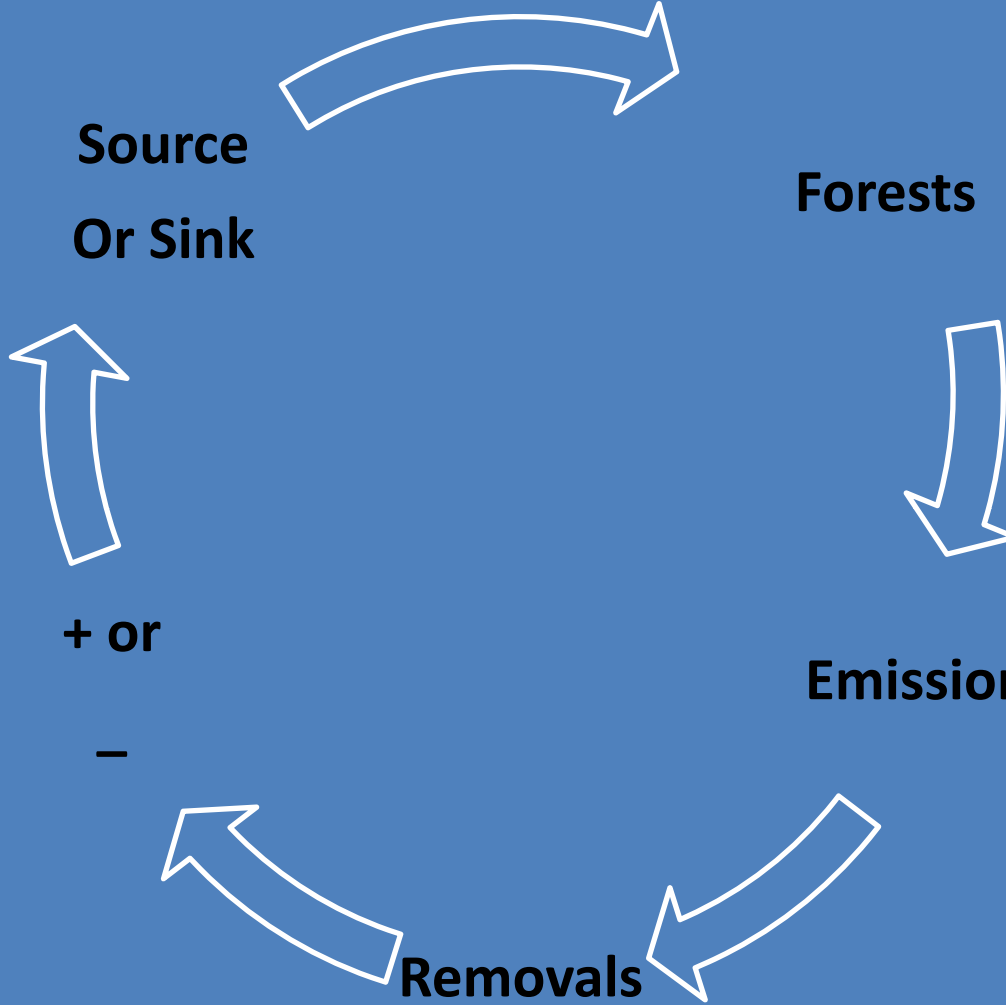
**Forests**

**Emissions**

**Removals**

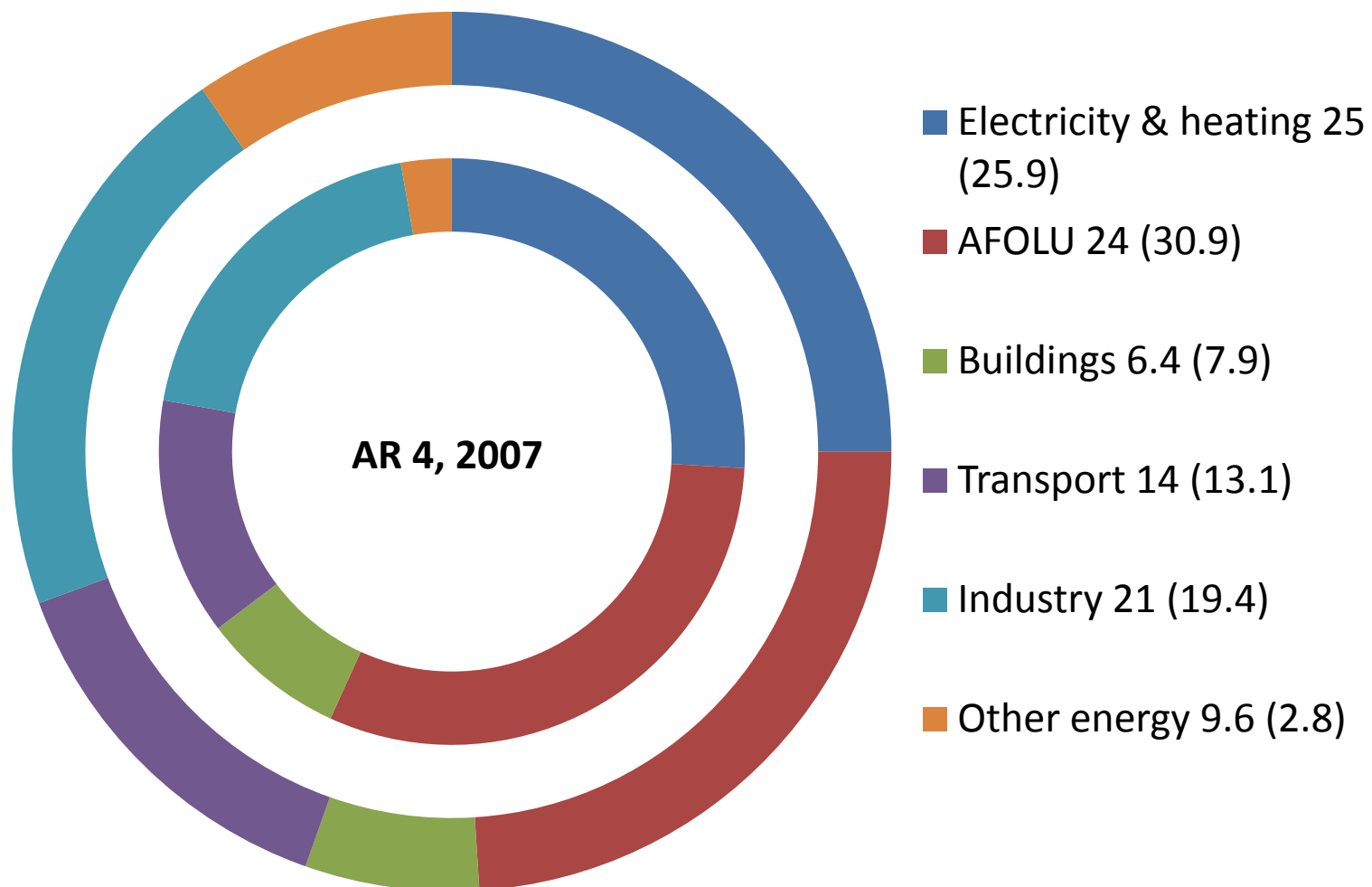
**+ or**

**-**





## AR 5, 2014: Sectoral Emissions (2010)



# Global Emissions: Different Sectors (%)

Sector	AR5: 2014	AR4: 2007
<b>Total</b>	<b>49 Gt CO<sub>2</sub>eq<sup>1</sup></b>	<b>49 Gt CO<sub>2</sub>eq<sup>2</sup></b>
Electricity and heating	25.0	25.9
AFOLU	24.0 (F:15)	30.9 (F: 17.4)
Buildings	6.4	7.9
Transport	14.0	13.1
Industry	21.0	19.4
Other Energy	9.6	2.8

<sup>1</sup>2010 estimates

<sup>2</sup>2004 estimates

Source: IPCC, 2014: Summary for Policymakers, 5<sup>th</sup> Assessment Report

## Forest Sector in Climate Action: Mitigation

- ✓ 15% contribution in global emissions
- ✓ 14% reduction in emissions from 2004 (AR4) to 2010 (AR5)

**CO<sub>2</sub> Concentration: 2100 (450)**

## **Phasing out of emissions**

✓	2010	100 (base)
✓	2050	60-30
✓	2100?	000 (<2°C)

Based on: IPCC, 2014: Summary for Policymakers, 5<sup>th</sup> Assessment Report

# CO<sub>2</sub> Concentration: 2100 (450)

## How to reach goal of '0' emissions in 2100?

- ✓ Rapid improvement in energy use efficiency
- ✓ ~2050: 3-4 times '0'-low carbon energy supply from **renewables**, nuclear, fossil energy with CCS, **bioenergy with CCS**
- ✓ Large scale change in LU for bioenergy production, afforestation and reduced deforestation

### *Important Role for Forest Sector*

# What is REDD-plus?

- ✓ RED ~2005
- ✓ REDD 2006
- ✓ REDD+ 2007 (Bali)
- ✓ Warsaw FW 2013  
for REDD+

**REDD+**

**Progress of financing and  
methodological guidance**

**COP 13 (Bali) to COP 19 (Warsaw)  
2007-2013**

# Active Negotiating Groups in Forestry and Climate Change in UNFCCC

✓ CfRN

✓ LMDC

✓ G77+ China



# **COP-13 Bali (2007): REDD+ Decisions**

**Birth of REDD+ comprising**

**‘REDD’: Checking**

**Deforestation**

**Forest degradation**

**‘+’: Encouraging**

**Forest conservation**

**Sustainable management of forests**

**Enhancement of forest carbon stocks**

**COP-19 Warsaw (2013):**

**“REDD+ COP”**

**REDD+ Decisions**

**Landmark development on financing of REDD+**

**Negotiators at COP19 in Warsaw agreed on seven decisions relating to REDD+:**

**“Warsaw Framework for REDD Plus”**

# Warsaw Framework for REDD+

- 1. Results-based finance for full implementation of activities in Decision 1/CP.16, Paragraph 70 (REDD+) (Decision 9/CP.19)**
- 2. Coordination of support for implementation of activities in relation to mitigation actions in forest sector by developing countries, including institutional arrangements (10/CP.19)**

## Methodological guidance for activities relating to REDD+

- 1. National forest monitoring systems (11/CP.19)**
- 2. Measuring, Reporting and Verification (MRV) of REDD + activities (14/CP.19)**
- 3. Technical assessment of Reference Emission levels/Reference Levels submitted by Parties (13/CP.19)**
- 4. Timing and frequency of submission of summary of information on how safeguards are addressed and respected (12/CP.19)**
- 5. Addressing drivers of deforestation and forest degradation (15/CP.19)**

*Source: VRS Rawat, ICFRE*

## **REDD+: Safeguards**

- ✓ **Transparent and effective national forest governance**
- ✓ **Respect knowledge and rights of Ips and LCs**
- ✓ **Full and effective participation of all stakeholders**
- ✓ **Conserve natural forests biodiversity**

**COP-20 Lima (2014):**  
**Lima Call for Climate Action**  
**Paris Agreement; REDD+ and other**  
**Forestry Decisions**

- ✓ Ground rules agreed for 2015 Paris Agreement
  - ✓ Adaptation as important as mitigation
  - ✓ Clarity on elements of 2015 Agreement
  - ✓ Elaboration of INDCs
- 

- ✓ REDD+: no agreement on further guidance for SIS
- ✓ Inclusion of additional LULUCF activities in CDM
- ✓ Inclusion of FiE as A&R CDM project activities

# **COP-20 Lima (2014)- Geneva Version**

## **Paris Agreement Highlights** contd.

Draft negotiating text for Paris Agreement attached with Lima COP decision (Geneva:12 February 2015 version)

### **Geneva Negotiating Text: Mention of REDD+**

- **Mitigation (para 23- REDD+ to be part of INDC)**
- **Finance (paras 34, 38- separate window under GCF for REDD+)**
- **Procedural and institutional provisions (para 92- establishment of a REDD+ mechanism)**

# REDD+ in Paris Agreement

## Ideal Paris Text

- ✓ Explicitly recognizes REDD+ as an INDC
- ✓ Anchors Warsaw Framework for REDD+
- ✓ Ensures separate finance window for REDD+ under GCF
- ✓ Anchors procedural and institutional provisions for a REDD+ mechanism

# Low Carbon Strategies for Inclusive Growth

## Planning Commission, April 2014

- ❑ Energy efficiency
  - ❑ Households, Buildings, Industry
- ❑ Transport
- ❑ Power
- ❑ Carbon sequestration (Forest sector)
  - ❑ Green India Mission (50-60 mtCO<sub>2</sub>eq)
  - ❑ PA management (47 mtCO<sub>2</sub>eq)
  - ❑ Increase in FTC in 1.7 lakh FF villages (12.5 mtCO<sub>2</sub>eq)
  - ❑ Improved wood burning cook-stoves (52.8 mtCO<sub>2</sub>eq)
  - ❑ Replacement of domestic and office metal and plastic furniture with wooden furniture (3 mtCO<sub>2</sub>eq)
  - ❑ C sequestration measures in forest sector alone capable of reducing emission intensity of GDP by 5.2% by 2030



## **National Mission for a “Green India” (GIM) (Approved by PM’s Climate Change Council)**

Goals include afforestation of 10 million hectares of degraded forest lands and expanding forest cover from 23% to 33% of India’s landmass

# REDD+ Readiness for India: Status

- ✓ Reference Document for REDD+ in India approved and adopted by MoEFCC by end of December 2014, hosted on Ministry's website in January 2015
- ✓ National REDD+ Policy under preparation
- ✓ FSI preparing the National Forest Reference Level by March 2015
- ✓ REDD+ to be part of India INDC

# Future importance of REDD+ for India

- 2015 new climate change agreement in UNFCCC
- India too to shoulder commitments; e.g., reduction in EI by 20-25% by 2025
- REDD+ potential option for meeting EI commitment (>5% REDD+ own contribution)
- INDC to include REDD+
- Future: REDD+ experience leading to realization of blue carbon sequestration potential

# Carbon Bonus for Communities?

Can Carbon incentives be channelized in WTI-Communities for Conservation Projects?

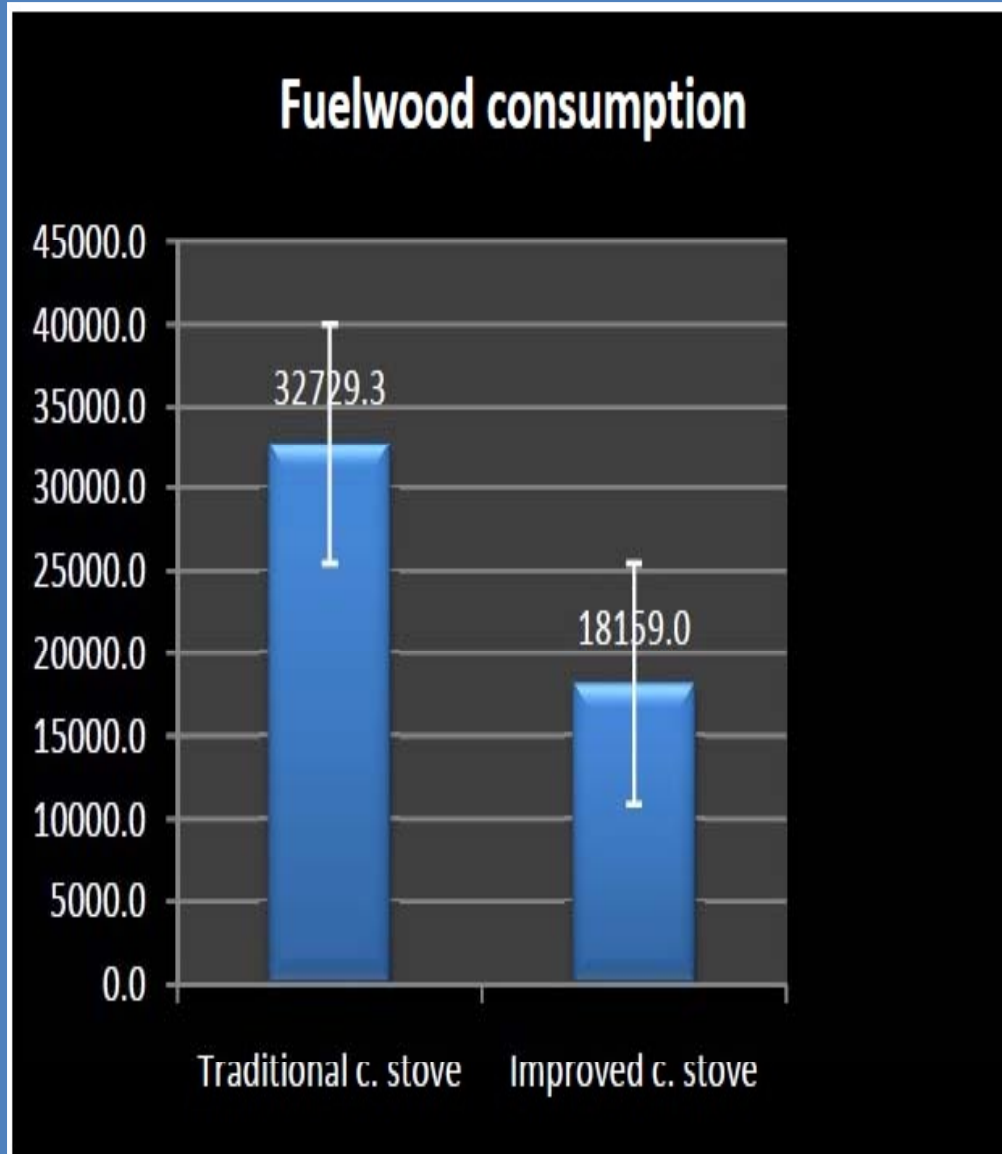
A Concept to align carbon service with ecosystem services utilized by local communities



# WTI Community Projects with Contribution to Climate Change Mitigation

- Garo Green Spine Conservation Project
- Karbi Anglong Conservation Project
- Valmiki Tiger Conservation Project
- Central India Tiger Habitat Conservation Project
- Greater Manas Conservation Project

# Central India Tiger Conservation Project, Maharashtra



Source: Cookstoves report, Central India Tiger Habitat Conservation Project





# Valmiki Tiger Conservation Project, Bihar



**Production of firewood efficient cookstoves  
in Gardi village**



**A woman using firewood efficient  
cookstove in a village**

**Source: SDTT Report, Valmiki Tiger Conservation Project**

## Greater Manas Conservation Project, Assam



Fig: A view of improved cookstove installed two years back in 2012; fuelwood consumption reduced by~ 30%

Source: IFAW Report, Greater Manas Conservation Project



## Valmiki Tiger Conservation Project, Bihar



**SHG members with the solar lamps given under the project**



**Demonstration on proper use of the lamps**

**Source: SDTT Report, Valmiki Tiger Conservation Project**

# Fact

*Many activities in WTI community projects contribute in emissions reduction besides providing other ecosystem services (benefits)*

- *Use of fuel efficient cookstoves*
- *Aided regeneration of forests*
- *Plantations*
- *Use of solar lights*

# Achievement!

*Activities in WTI community projects  
neutralized emissions from 1974  
cars during 2014-15!*

# Question?

*Can local communities get additional incentives- Carbon bonus- for contribution in reducing emissions? For setting-off emissions from 1974 cars.*

***Yes!***

**Partner Rural Community in development!!**

**Make your country green and clean**

**Reduce Carbon footprint of your car**

***Support***

***Planting 1 hectare with trees***

***or***

***Installing 3 fuel efficient cookstoves***

***or***

***Distributing .....solar lamps***

***or***

***Pay money required to offset your car emissions to community***

***Thanks***

# CO<sub>2</sub> Concentration: Past, Present, Future

✓	~1750	280
✓	2013	395
✓	2100?	450-500 (<2 <sup>0</sup> C) 530->650 (>2 <sup>0</sup> C)

# COP-20 Lima (2014)- Geneva Version

## Paris Agreement Highlights

Draft negotiating text for Paris Agreement attached with Lima COP decision (Geneva:12 February 2015 version)

- Large no of options further increased- 43 pages to 86 pages
- 12 Sections (A-L)
  - Preamble
  - Definitions
  - General/objective
  - Mitigation
  - Adaptation and loss and damage
  - Finance
  - Technology development and transfer
  - Capacity building
  - Transparency of action and support
  - Timeframes and process related to INDCs
  - Implementation and compliance
  - Procedural and institutional provisions