# Ghana National MRV set-up - “Climate ambition reporting program – CARP”

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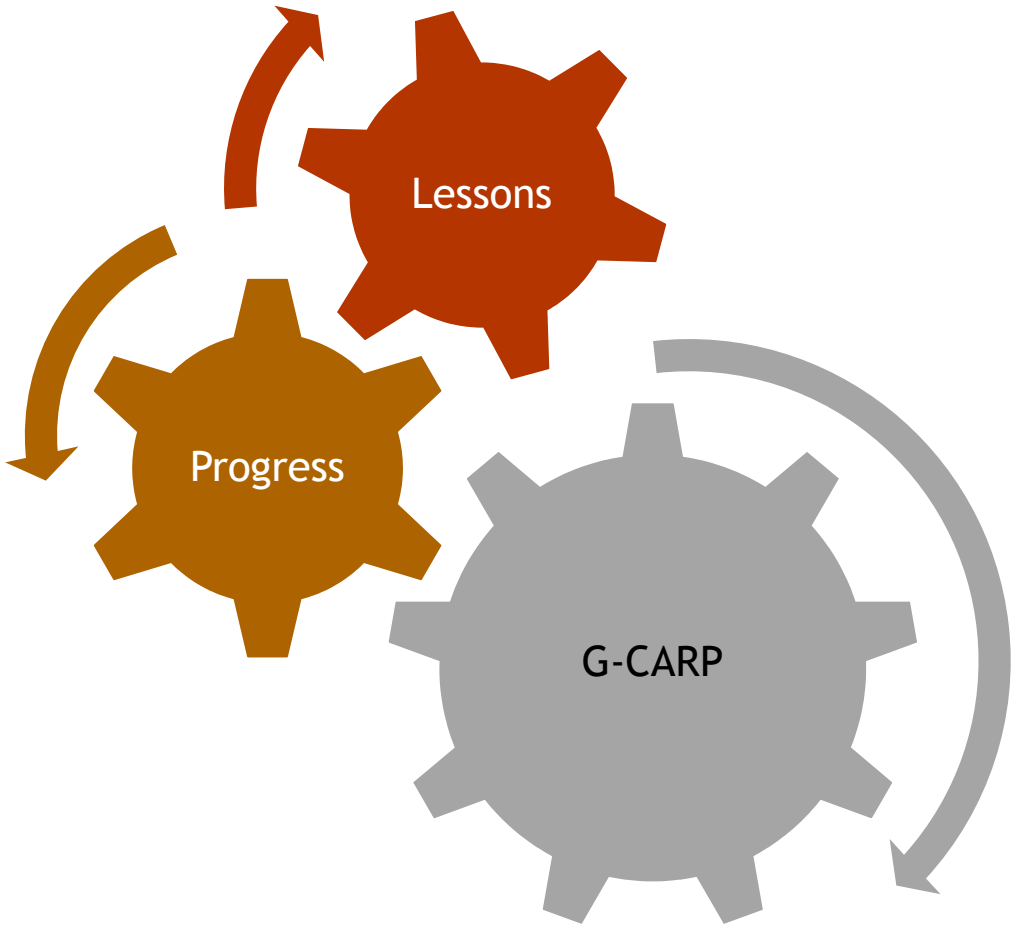
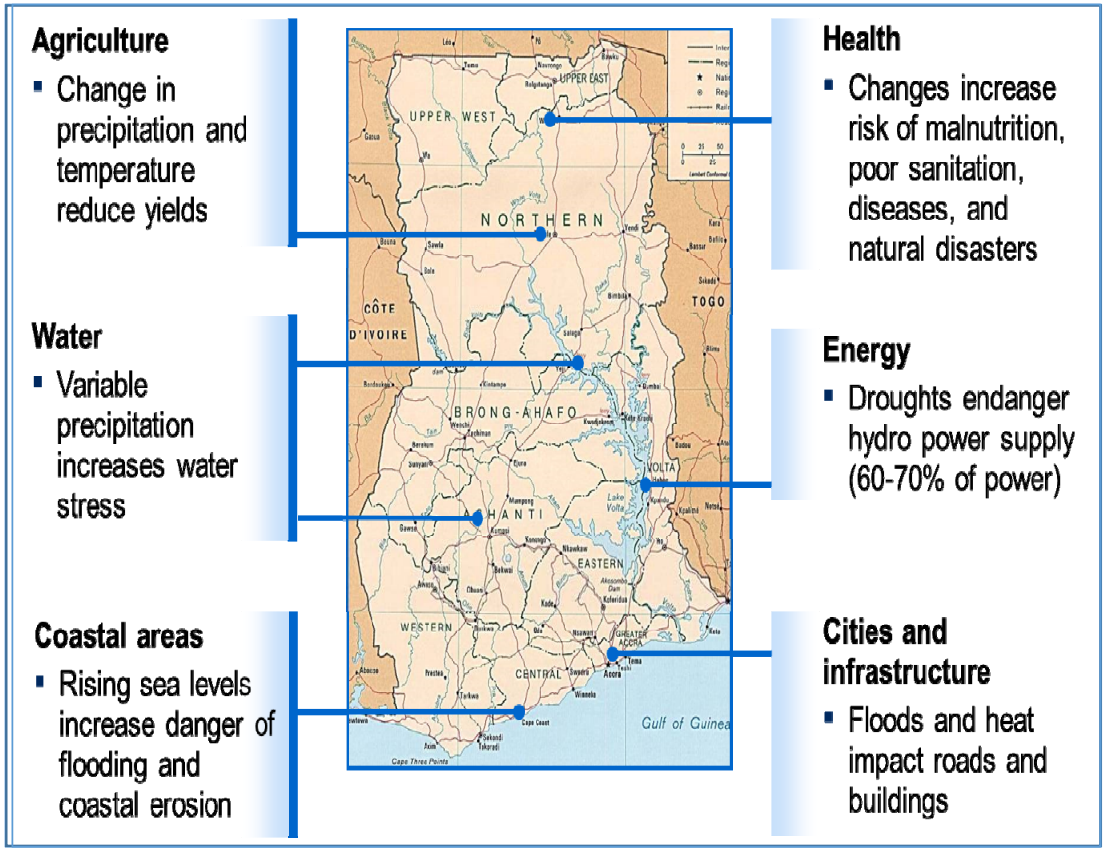
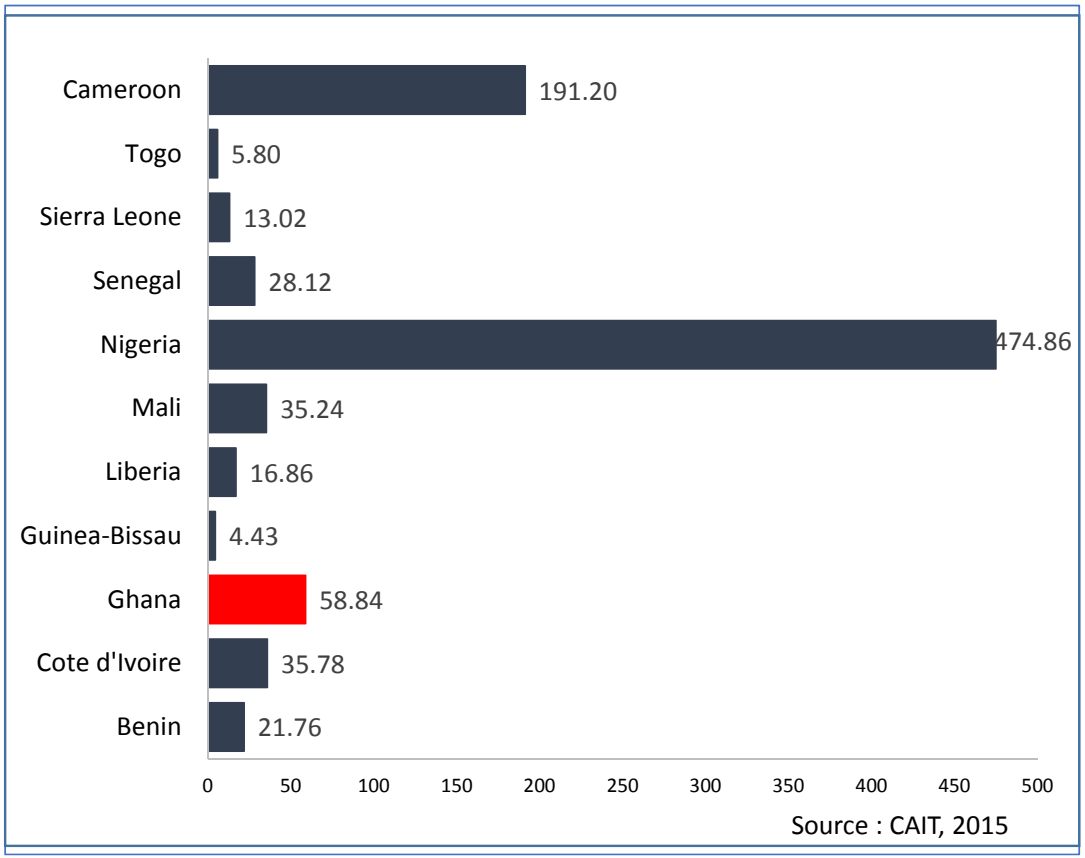
# Outline of my talk



# National circumstances




Socio-economic, vulnerabilities & policies



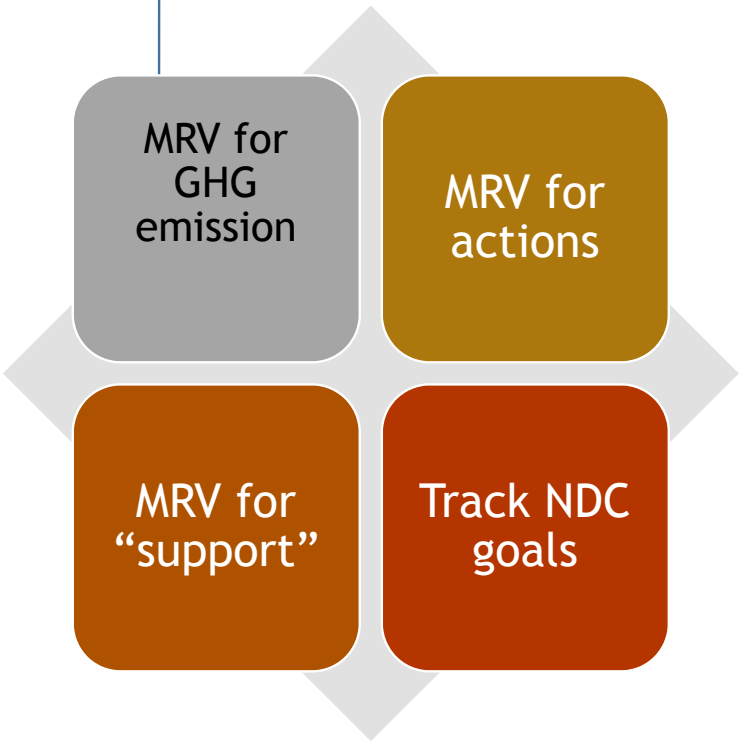

GHG emission profile

# What's CARP about?

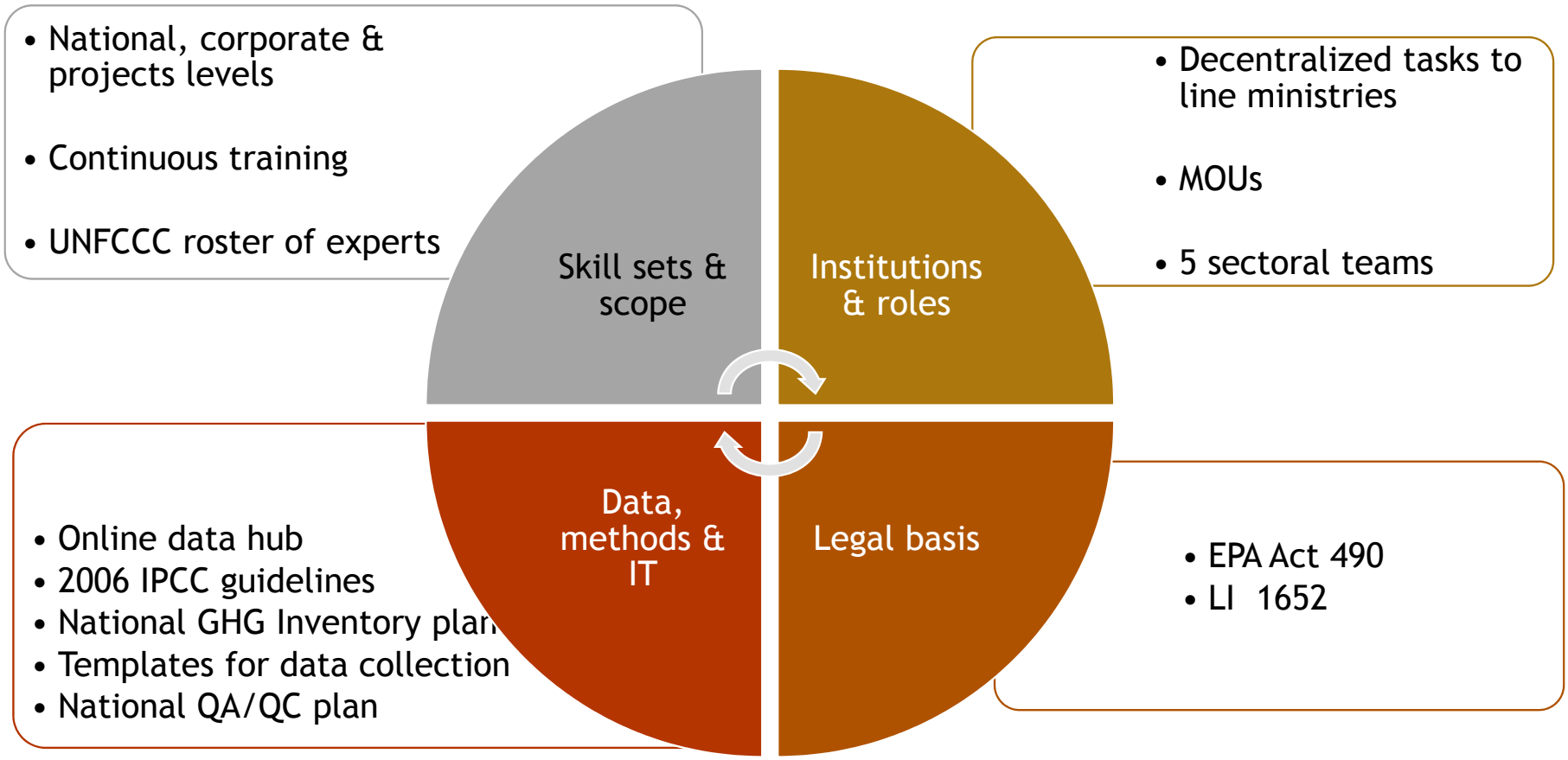
Focus of this presentation

National plan to put in place and operate an "integrated national system" for:

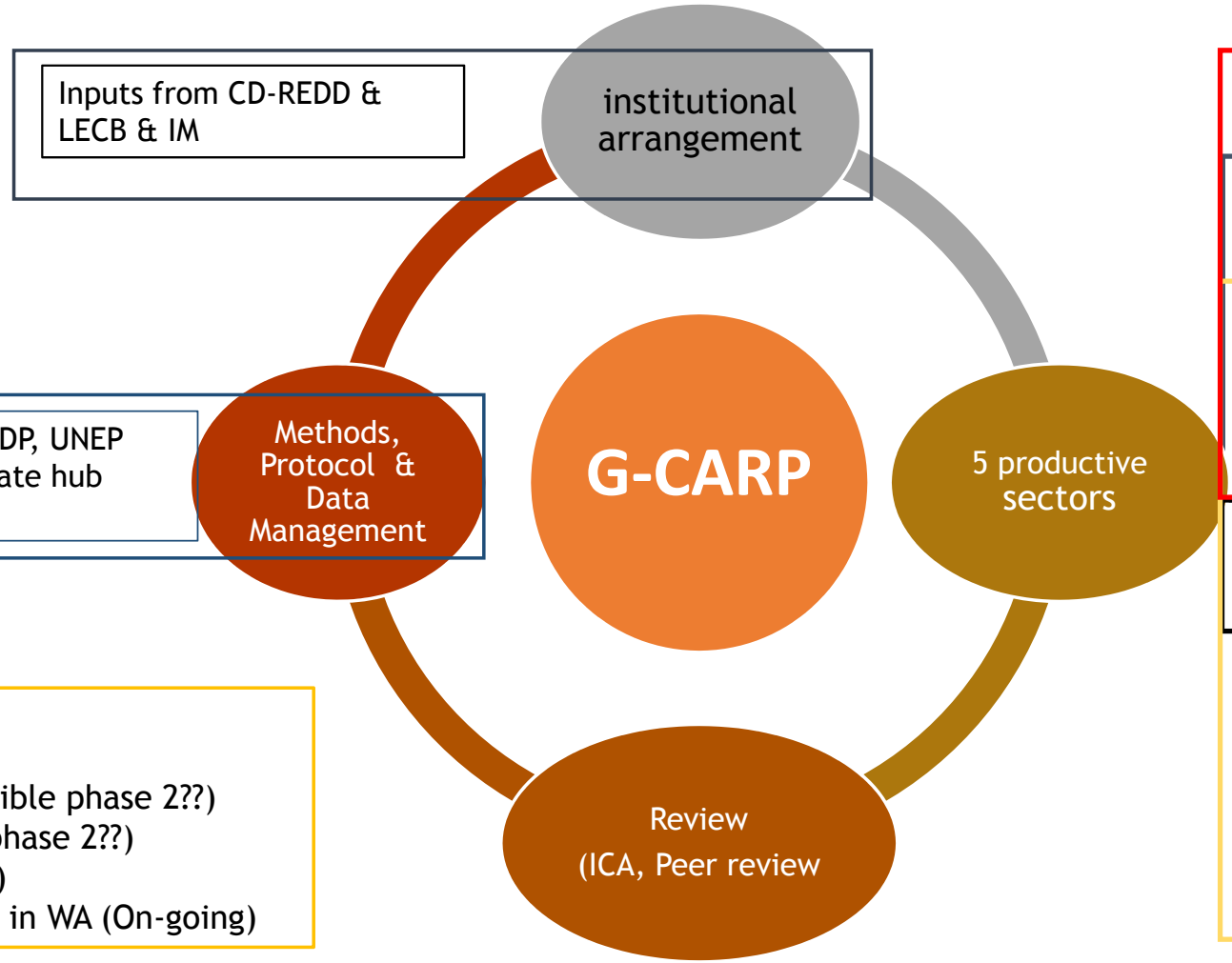
- ✓ Continuous data measurements & collection on
  - GHG emissions (in place)
  - mitigation actions (new)
  - climate support (new)
  - track progress of NDC targets (new)
- ✓ Preparation & compilation
- ✓ Domestic disclosure and international reporting
- ✓ Technical and "policy" review (verifications)



# National arrangement and procedures



# Capacity received with the aim to strengthen national system for inventory




Sustainable GHG Mgt. in WA

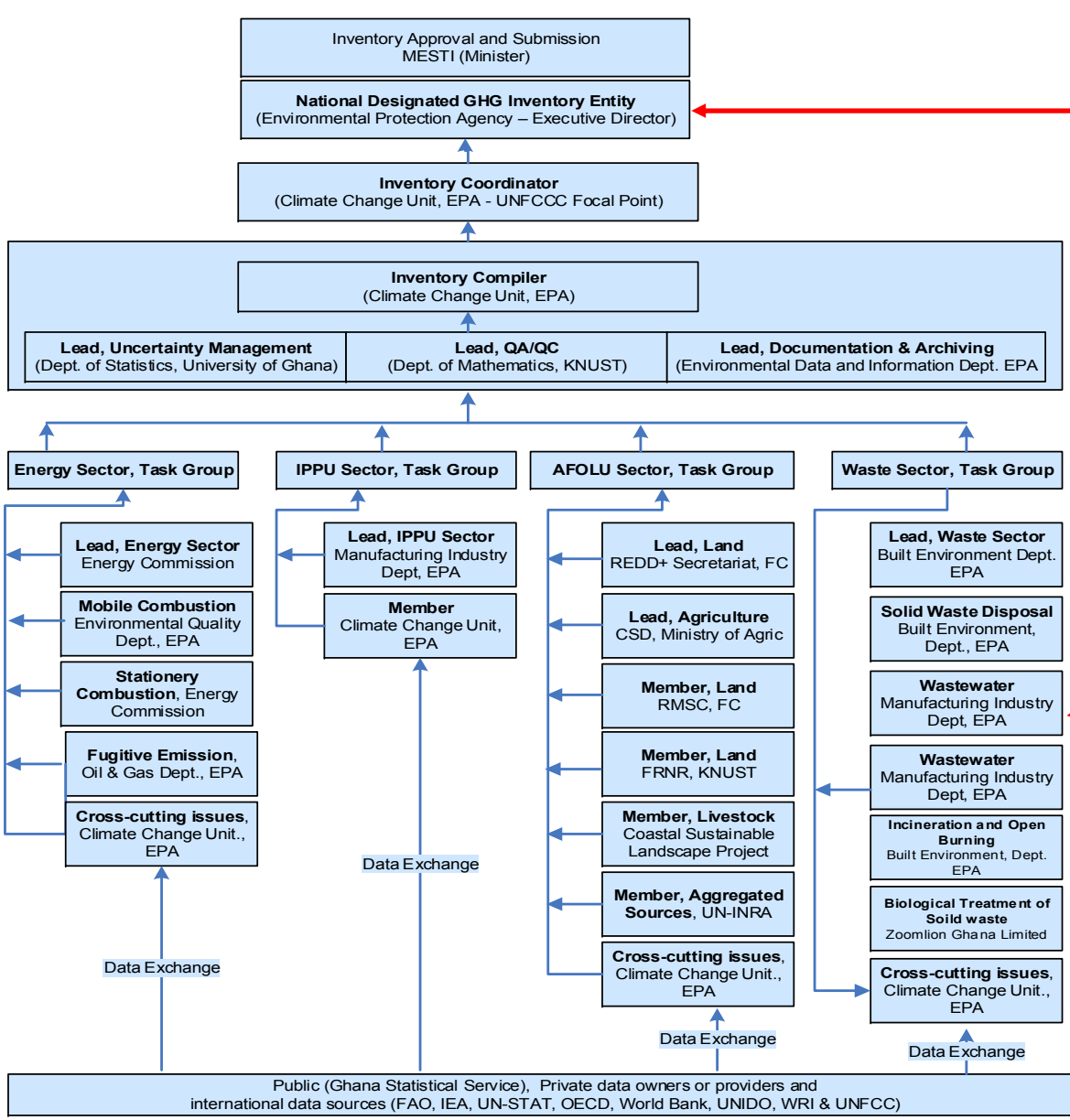
*CD-REDD Project*

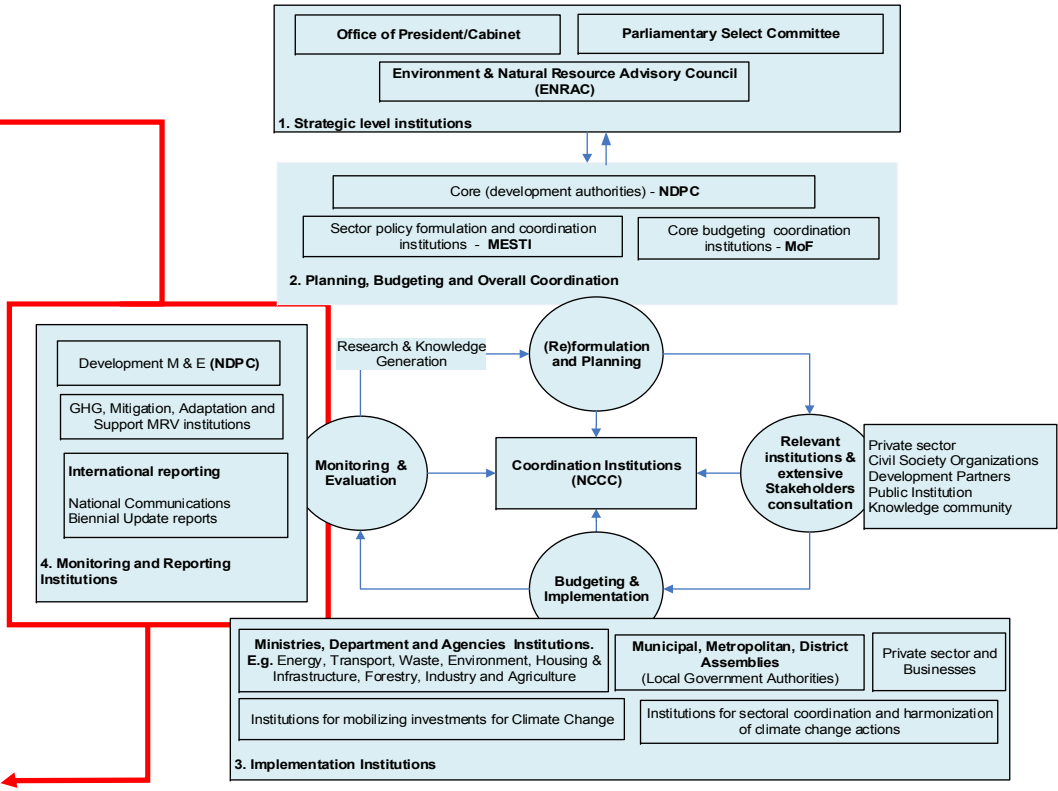
- Agric
- Forestry
- Energy — UNDP LECB Project
- Industry
- Waste

GIZ Information Matters Project

Status of support

1. CD-REDD (Ended)
2. LECB (On-going, Possible phase 2??)
3. IM (Ended, Possible phase 2??)
4. UNDP-GEF (On-going)
5. Sustainable GHG Mgt in WA (On-going)




Institutional arrangement relevant to climate change

GHG inventory institutions and roles

# national arrangements - legal basis, (EPA Act, Act 490) & MOU

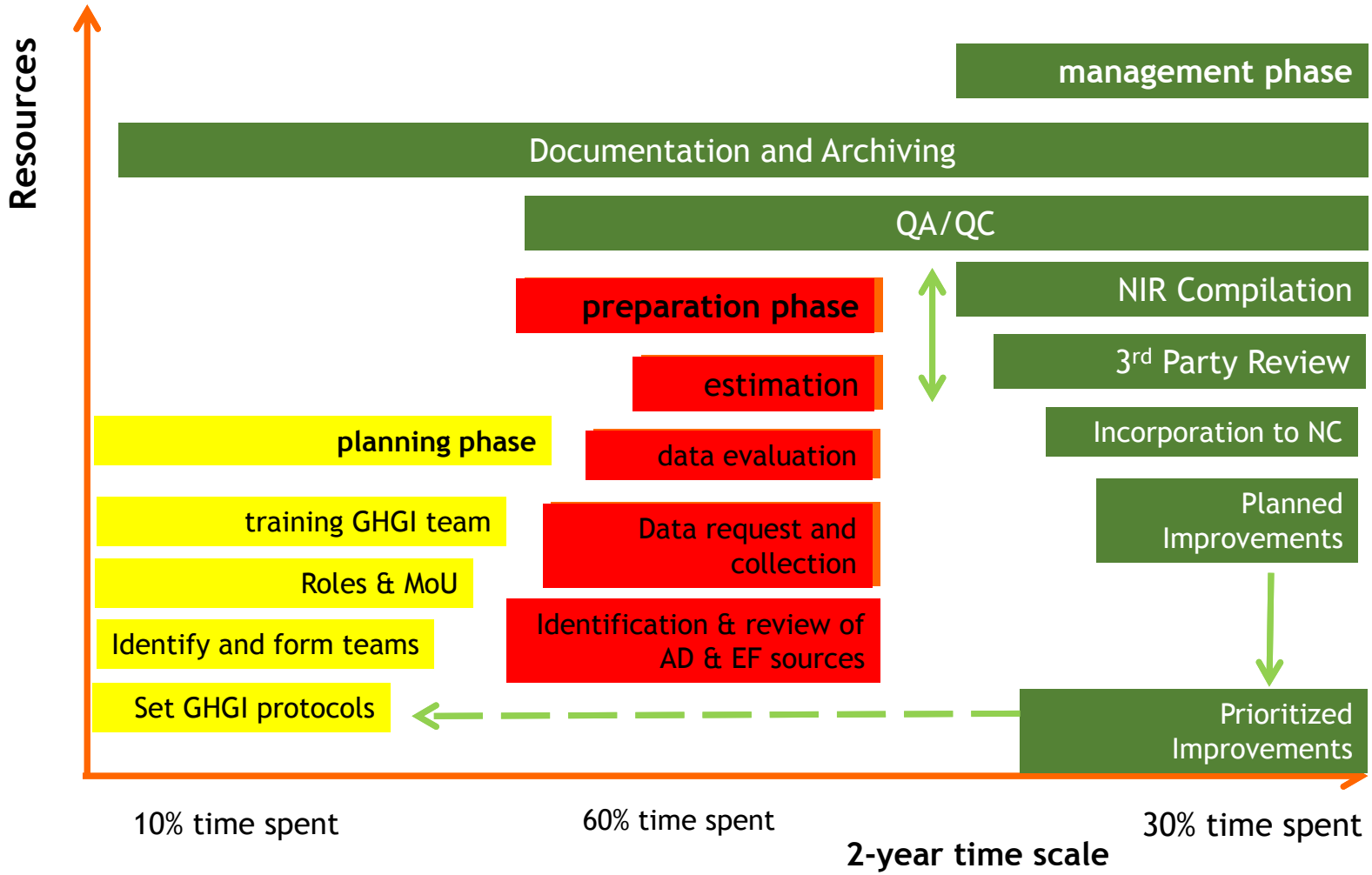
**Work-Package Memorandum of Understand (WP-MoU) with Lead Greenhouse Gas Inventory Entities in Ghana**

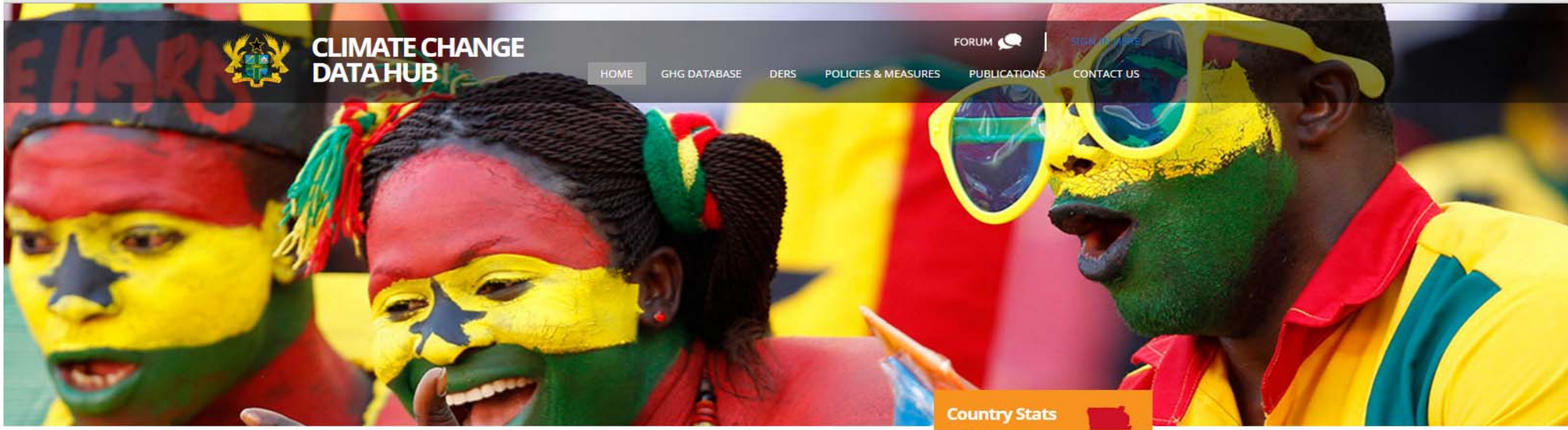
**What does the WP-MoU seek to do?**

1. The vision of the new greenhouse gas inventory in Ghana is to, first, become more relevant to government policies and national planning and secondly, be able to meet the present and future international reporting requirements. The GHG inventory system must be integrated to the extent that it becomes responsive to any form international mechanism intending to subject the inventories to either "facilitative" or "technical" reviews, which may be required of the country. In order to ensure that the Ghana's ability is strengthened to undertake the GHG inventory on regular basis and to make it relevant to decision-making, an improved National System for GHG Inventory is to be implemented under the Third National Communication (NC3).

2. The National System for GHG inventory is mainly define by a framework, which contains a set of institutions, their roles and responsibilities and above all, the collaborative mechanisms, which underpin them. As part of the efforts to

# national arrangements - inventory cycle






## WELCOME

This data hub is part of the reform in the national system for climate reporting. It contains data/information on climate actions from sectors, cities and project owners. It serves as a one-stop-shop platform where users can access reliable information on climate actions and their effects as well as on support and policies behind them as far as possible. The data/information are packaged into three main portals listed below;

- Greenhouse gas emissions database (GHG-D) containing information on activity data, emission factors and emission estimate for 5 sectors.
- Domestic electronic registry system (DERS). The DERS contains specification details on climate actions and implementation effectiveness.
- Dashboard of climate change policies and measures (D-PaMs).

The data and information contained in hub are already processed and updated to 2012 and will be regularly updated as new datasets come through the data exchange pipeline.

### GHG emissions database

This contains archived dataset used for the calculation of the national GHG emission estimate for 1990-2012. It is meant to improve archiving of GHG data and also ensure that the general public have access to them.

READ MORE

### Domestic electronic registry system

The DERS is a centralized data point for climate actions in ministries, cities and project levels with funding from multiple sources. It also contains information the climate actions and their effect, implementation status, key achievements and impacts.

READ MORE

### Climate policies & measures database

The D-PaMs is the dashboard of climate policies and measures in the key productive economic sectors in Ghana. The dashboard helps to track the progress of implementation of actions under the PaMs.

READ MORE

### Country Stats

**Location**
Africa
**Total Area**
238,533 sq km
**Population**
25,241,998 (2011)
**GDP per capita**
$1,461 (2014)
**Population below National poverty line**
28.5% (2006)
**CO2 emission estimates per capita**
0.71 Tons (2012)
**Cost of Environmental Degradation**
8.95% of GDP (2012)
**Total National Emissions Stock**
33.7Mt$CO_2e$ (2012)

### Country Documents

- Ghana Shared Growths Development Agenda [2014-2018]
- National Climate Change Policy [2014]
- Ghana's Intended Nationally Determined Contributions [2015]
- Bi-Annual Updates Report [2015]
- Third National Communication [2015]
- GHG Inventory Report [2015]
- Technology Needs Assessment [2008 - 2013]
- NAMA Investor Guide

National arrangement - online archiving

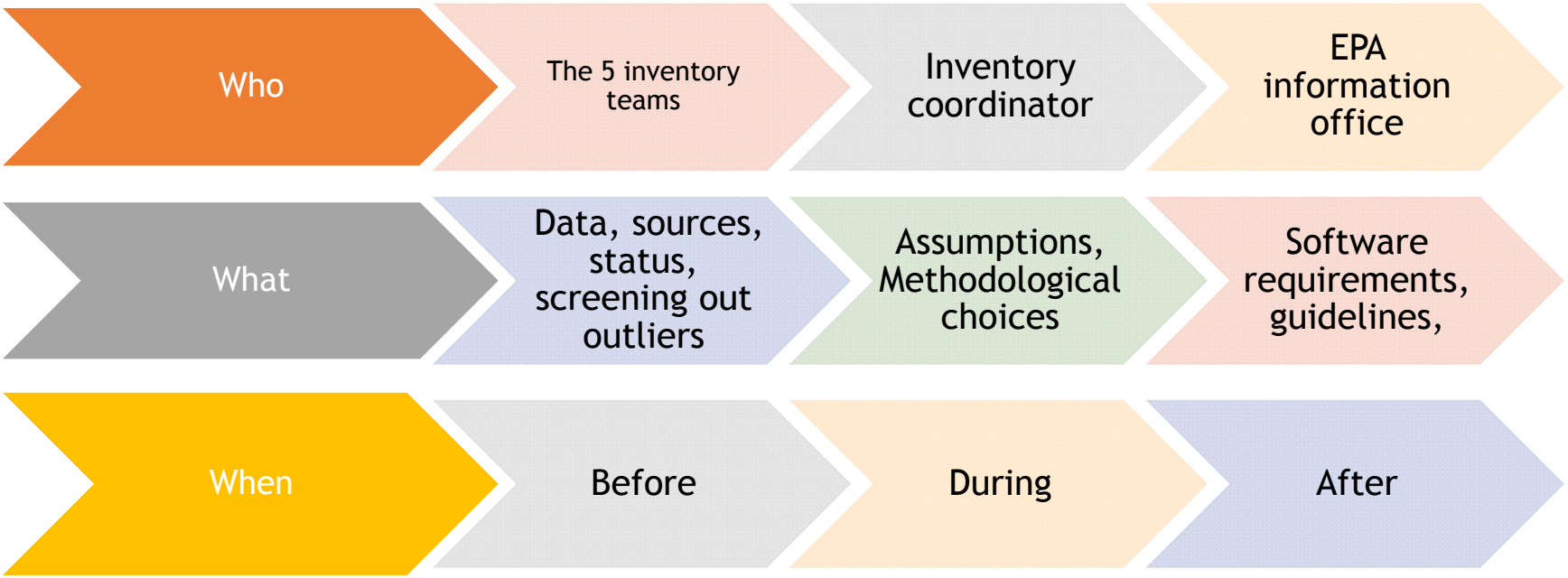
## Data documentation and archiving – how are we approaching it?

- We keep it simple but aim at consistent improvement towards “dynamic data management system” in the future.

- We try to clearly define
  - why  we need documentation
  - what to document
  - how to document
  - who to document
  - where/how to store and retrieve

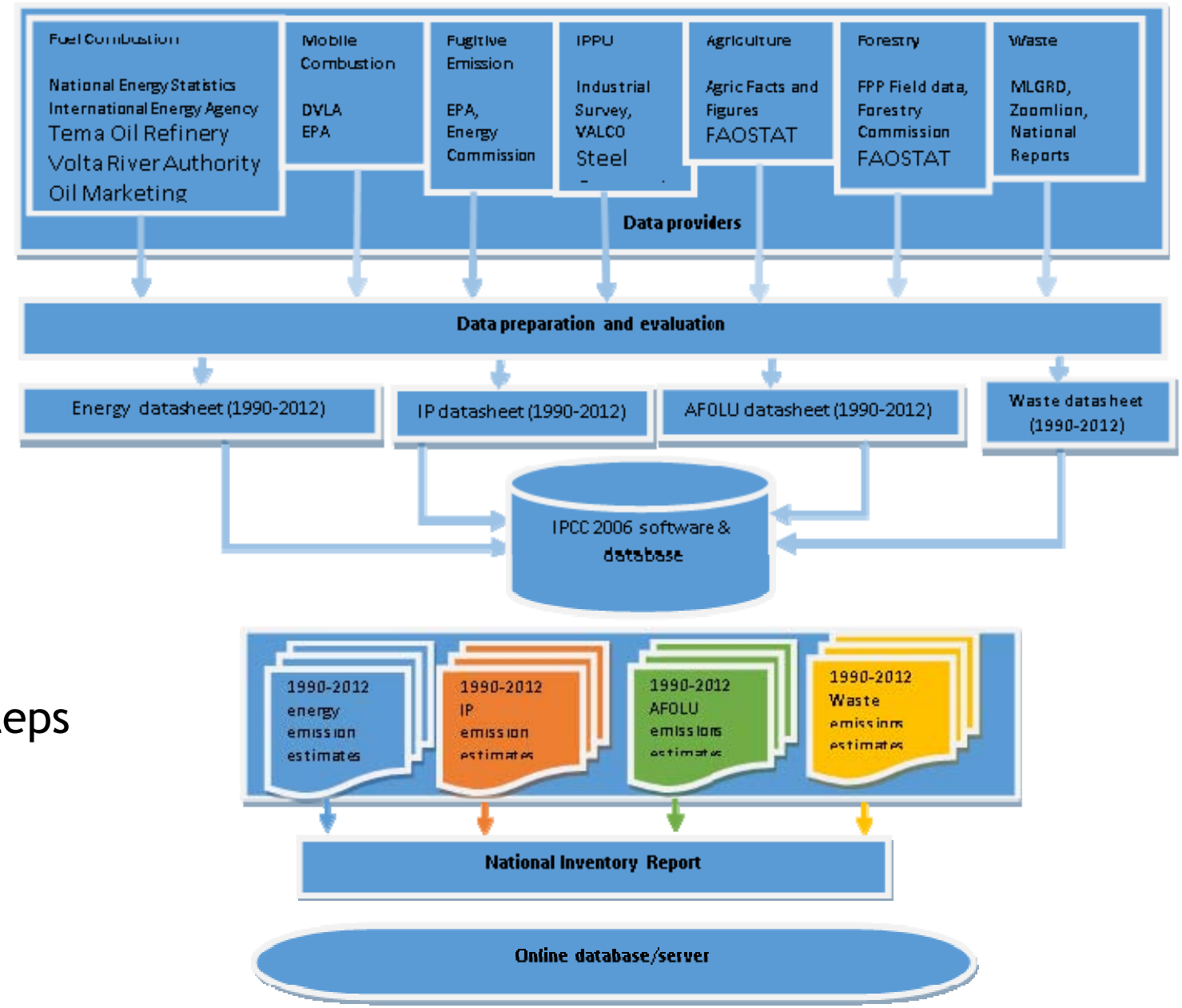
- This means; we put to in place?
  - Defined roles and responsibilities for documentation
  - Simple procedures to guide “what and how” documentations
  - Develop or adopt template documentation
  - System for storage and retrieval
  - Identify means for continuous improvements

# Who documents/archive what?




Hints: All the “specifics” are “contained” in the MOU signed between the GHG inventory office and the inventory team institutions

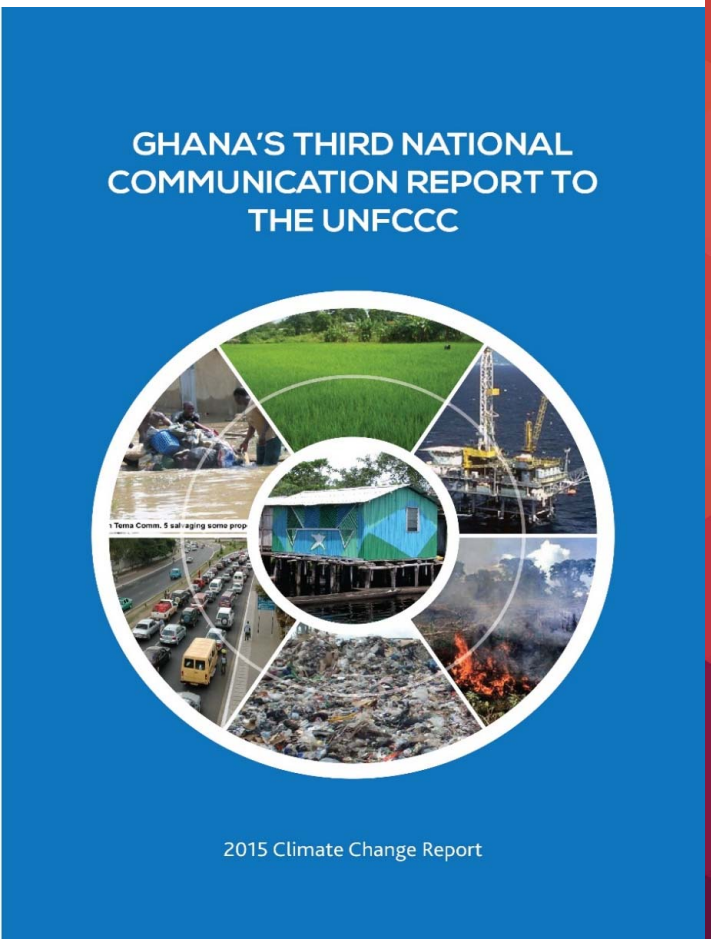
national arrangements –
flow chart of inventory steps

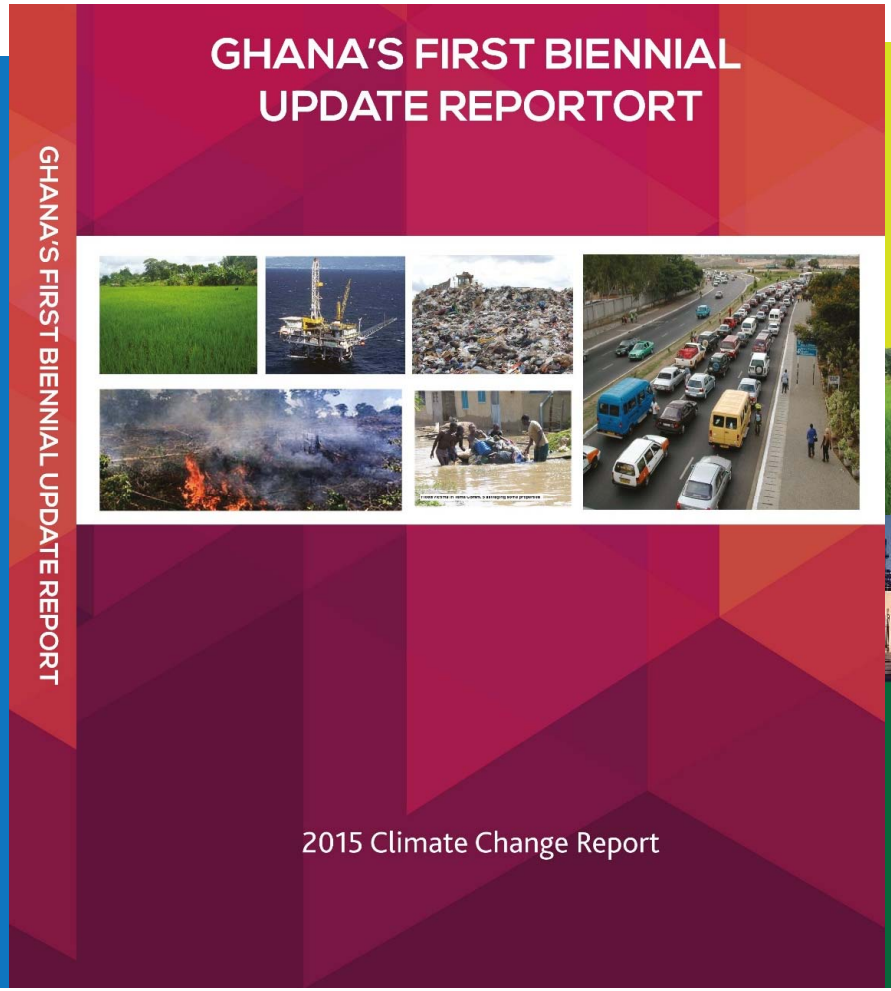


# Achievements so far

- National system for GHG inventory has been in operation since 2000
- Progressively improved with new reforms to improve institutional arrangement.
- Compiled 3 national communications, 2 national inventory reports and 1 BUR
- Successfully completed ICA (Technical review and FSV workshop).
- 30 experts from 16 public and private institutions constitute national team.
- Next reporting plan under preparation.
- MRV of climate action, MRV of finance and tracking of NDC goals are new tasks

# Latest international reports




# Energy Sector (1) - snapshot

- (1a) Stationery and mobile combustion, (1b) fugitive emissions & (1c)carbon storage & transport.
- Methodology – 2006 guidelines, Tier 1/2 & Default/CS EF
- Data sources:
  - ✓ Stationery combustion - Energy statistics/Energy balance (EC),
  - ✓ IPPs, NPA, TOR, Industrial survey,
  - ✓ Ghana Statistics Office (Ghana Living Standard Survey), Industry environmental reporting, IEA
- Key categories
  - ✓ Electricity generation
  - ✓ Road transport
  - ✓ Others (domestic and commercial energy use)

# Energy Sector (2) - priority improvement areas

- **Data gaps in energy statistics/energy balance**
  - ✓ Sectoral fuel allocation (big difference between RA/SA)
  - ✓ Gaps in time series
  - ✓ Use of Default EF and tier 1 methodology in key categories
  - ✓ Solid biomass production, supply and consumption data
  - ✓ No metadata

- **Road Transport**
  - ✓ Outdated country-specific EF
  - ✓ Outdated survey data on vehicle circulation data ( annual speed and distances)
  - ✓ Inadequate fuel allocation by fuel type, age, technology and road class

- **Efforts to address them**
  - Conducted Genset survey (results are being processed and data will be included in next inventory).
  - Developing MRV scheme for electricity sector
  - Planning to incorporate private garages in on-road data collection

# AFOLU (1) - snapshot

- (a) Land (b) Livestock (c) Aggregate sources and non-CO2 emissions sources on land
- Methodology – 2006 guidelines, Tier 1/2 & Default/CS EF
- Data sources:
  - ✓ Livestock & crops - Annual Agriculture Facts and Figures (Ministry of Food and Agriculture)
  - ✓ Land - Land representations, disturbances (fire), EF (biomass), biomass harvesting (Forestry Commission).
- Key categories
  - ✓ FL-FL
  - ✓ FL-OL
  - ✓ Biomass burning

# AFOLU Sector (2) - priority improvement areas

- **Data gaps in land representation data**
  - ✓ Definition issues (forest definition, codification of land representation)
  - ✓ Spatially delineation of trees crops from natural and planted forest stands
  - ✓ Time series data on forest fires
  - ✓ AD on forest degradation - wood fuels, impact of selective logging etc

- **Efforts to address them**
  - ✓ Preparation of new historical and current land use map under REDD+ REL/FREL to UNFCCC with support from Winrock
  - ✓ Country-specific EF for six land representations developed
  - ✓ Developed 12 land-sector specific Standard Operating Procedures (SOP) for conducting inventories.

# Barriers

- Full implementation of “domestic MRV” can be a slow and “tough” endeavor.
- Limited funds (donor-dependent and no/low national budgetary allocation)
- Low visibility of MRV results for policy decision-making
- Access to good quality data (missing data, non-existing data)
- Capacity gap
- General lack of awareness
- How to effectively capture adaptation actions and their effects (indicators)

# Success factors

- Integration approach – build MRV into existing M&E system
- Phase-out approach – progressive improvements
- Decentralization of MRV tasks to line ministries (long-term sustainability & ownership)
- Incentive for career development (acquire new skills)
- Continuous training of team members
- Dedicated team (leadership, commitments, motivation, consistent team)

Thank you