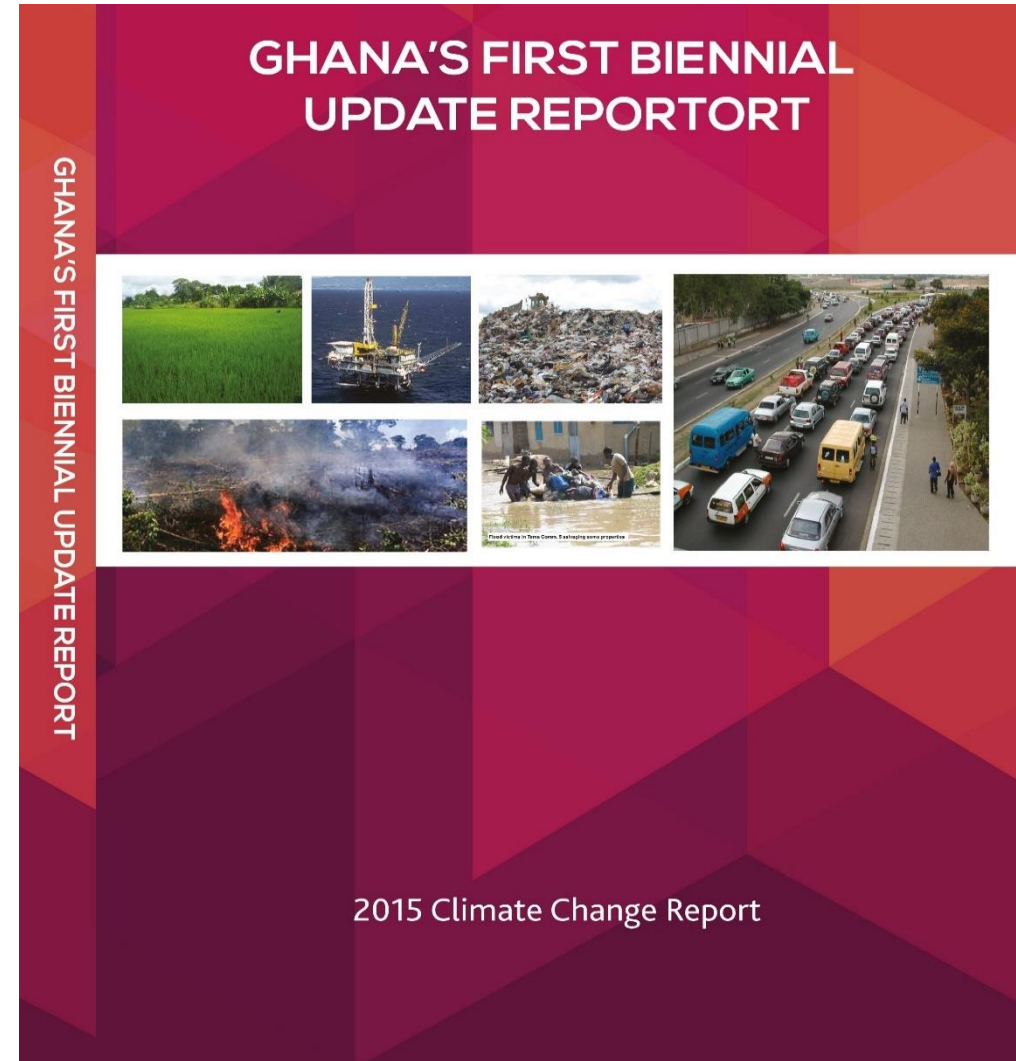# Summary of Ghana's BUR

Facilitative Sharing of Views (FSV) workshop under ICA

Joseph Amankwa Baffoe
(EPA-Ghana)

Submissions and TTE review timelines

- ✓ Submission of BUR to UNFCCC secretariat : 21 July, 2015

- ✓ Centralized technical analysis by TTE : 16 -18 November, 2015

- ✓ Website publication of summary report : 12 February, 2016

http://unfccc.int/documentation/documents/advanced_search/items/6911.php?priref=600008881

Summary of information in the reports

1. National circumstances

- ✓ economic outlook
- ✓ geography and demography
- ✓ development and environment
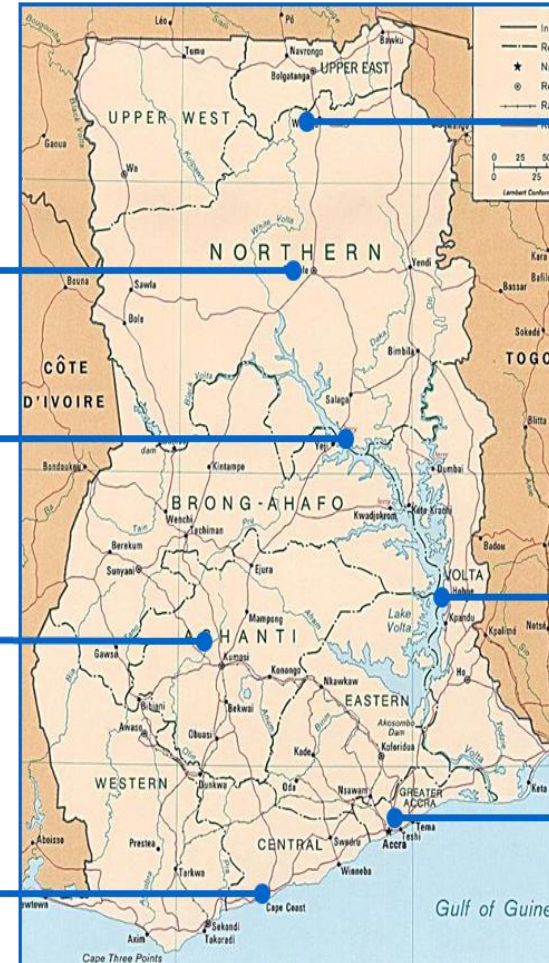- ✓ Spread of climate vulnerabilities

Agriculture
- Change in precipitation and temperature reduce yields

Water
- Variable precipitation increases water stress

Coastal areas
- Rising sea levels increase danger of flooding and coastal erosion

Health
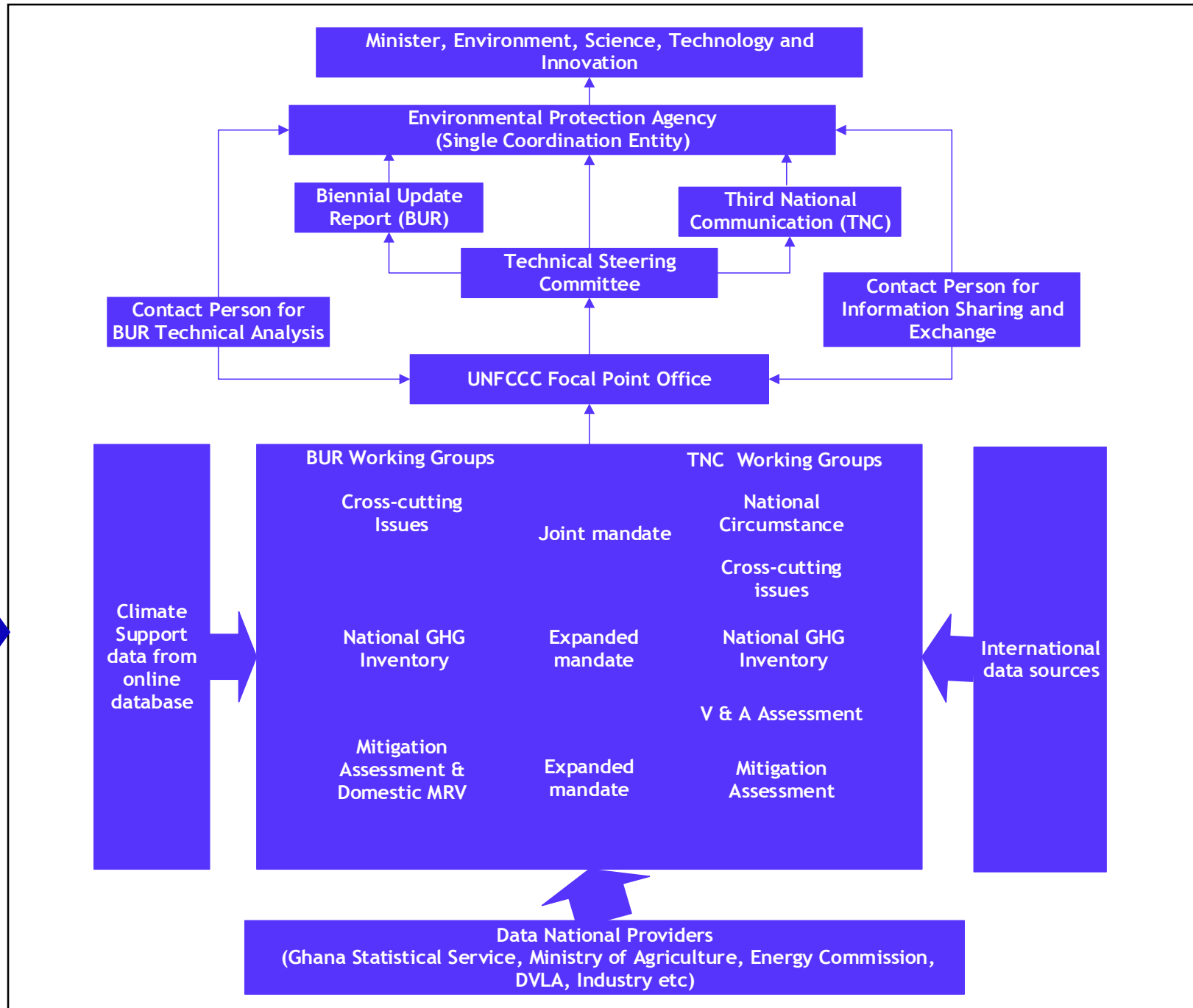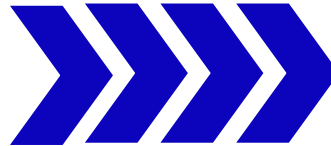- Changes increase risk of malnutrition, poor sanitation, diseases, and natural disasters

Energy
- Droughts endanger hydro power supply (60-70% of power)
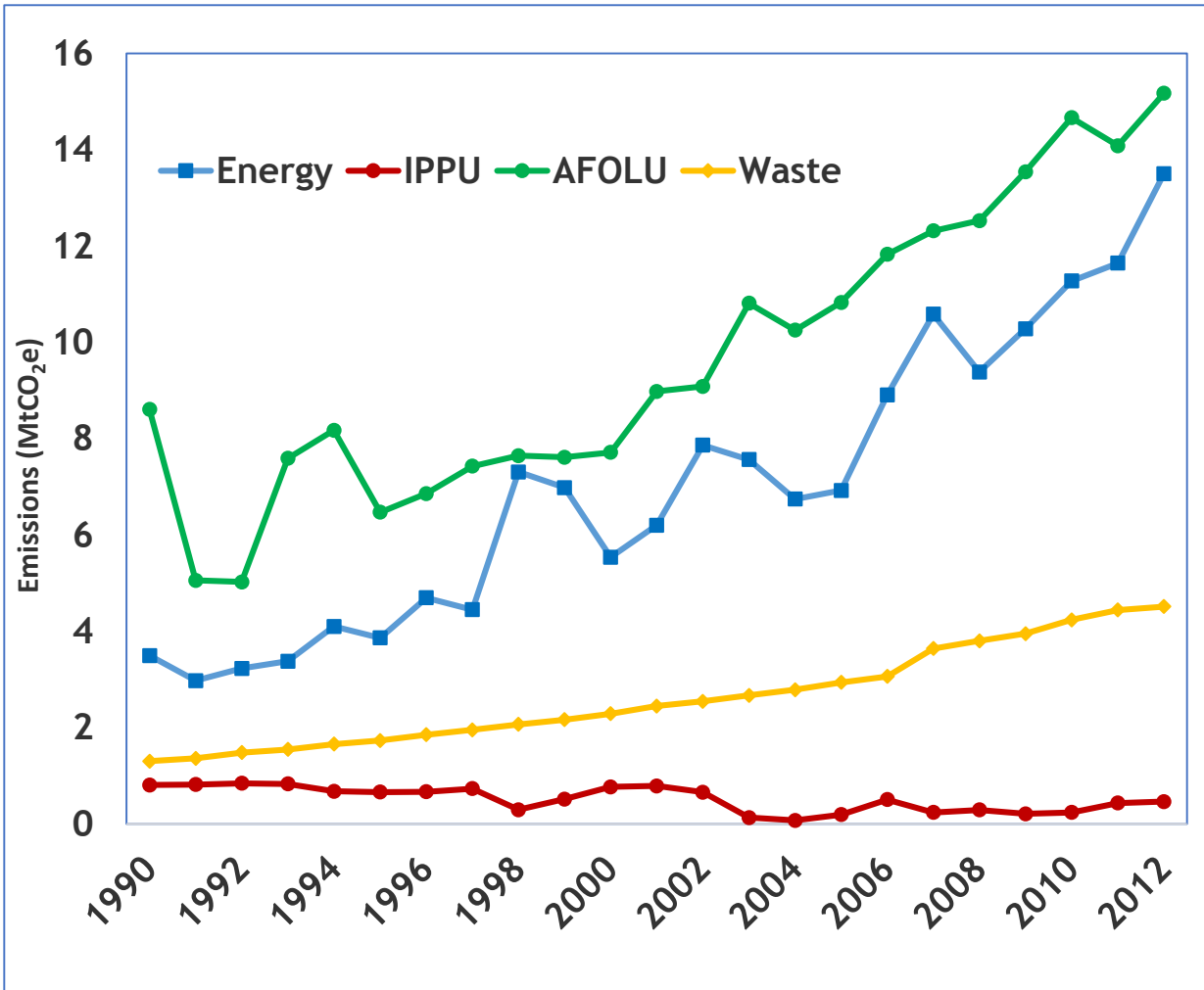
Cities and infrastructure
- Floods and heat impact roads and buildings

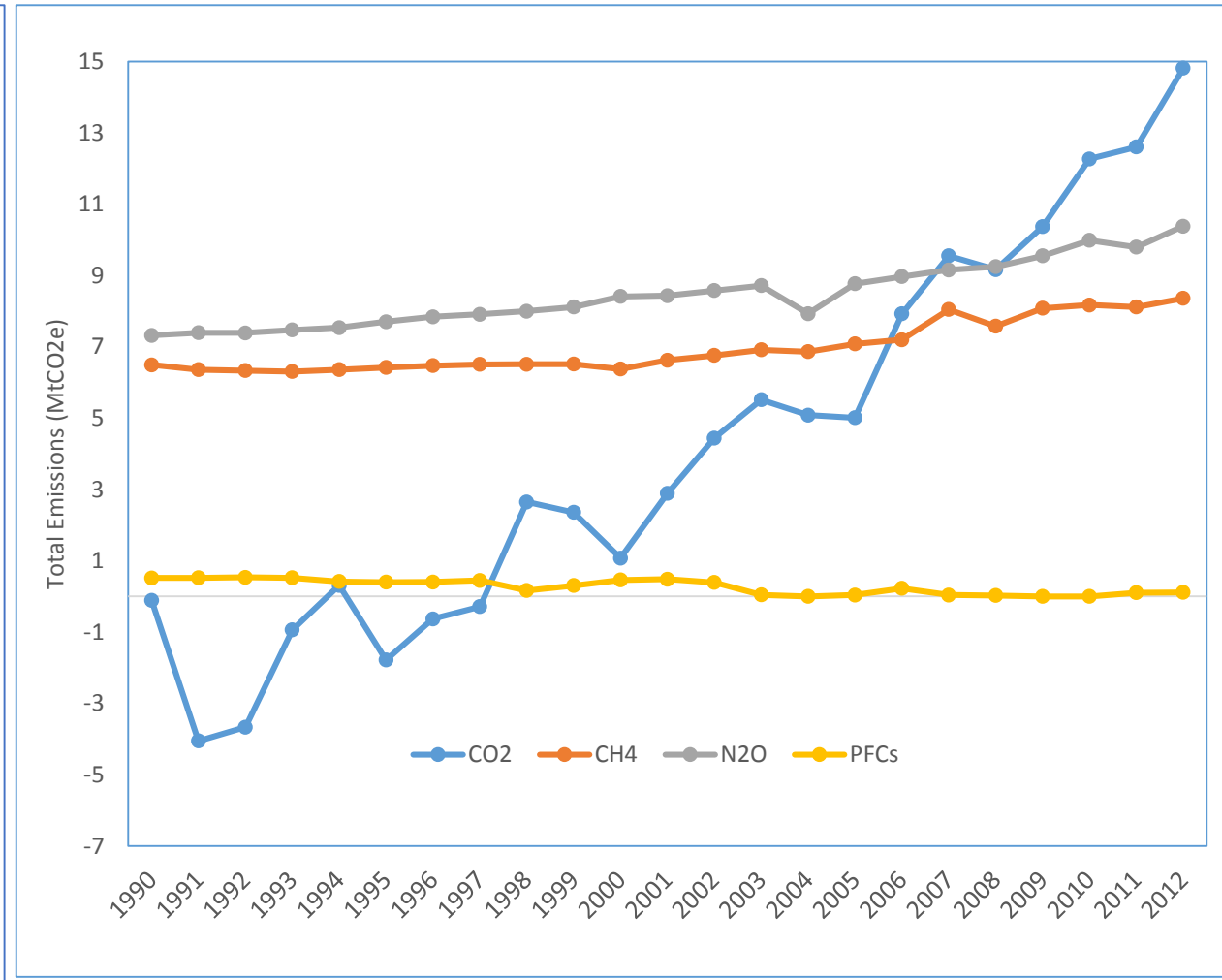# 2. Institutional arrangement relevant to climate change

Institutional arrangement for the preparation action BUR/TNC
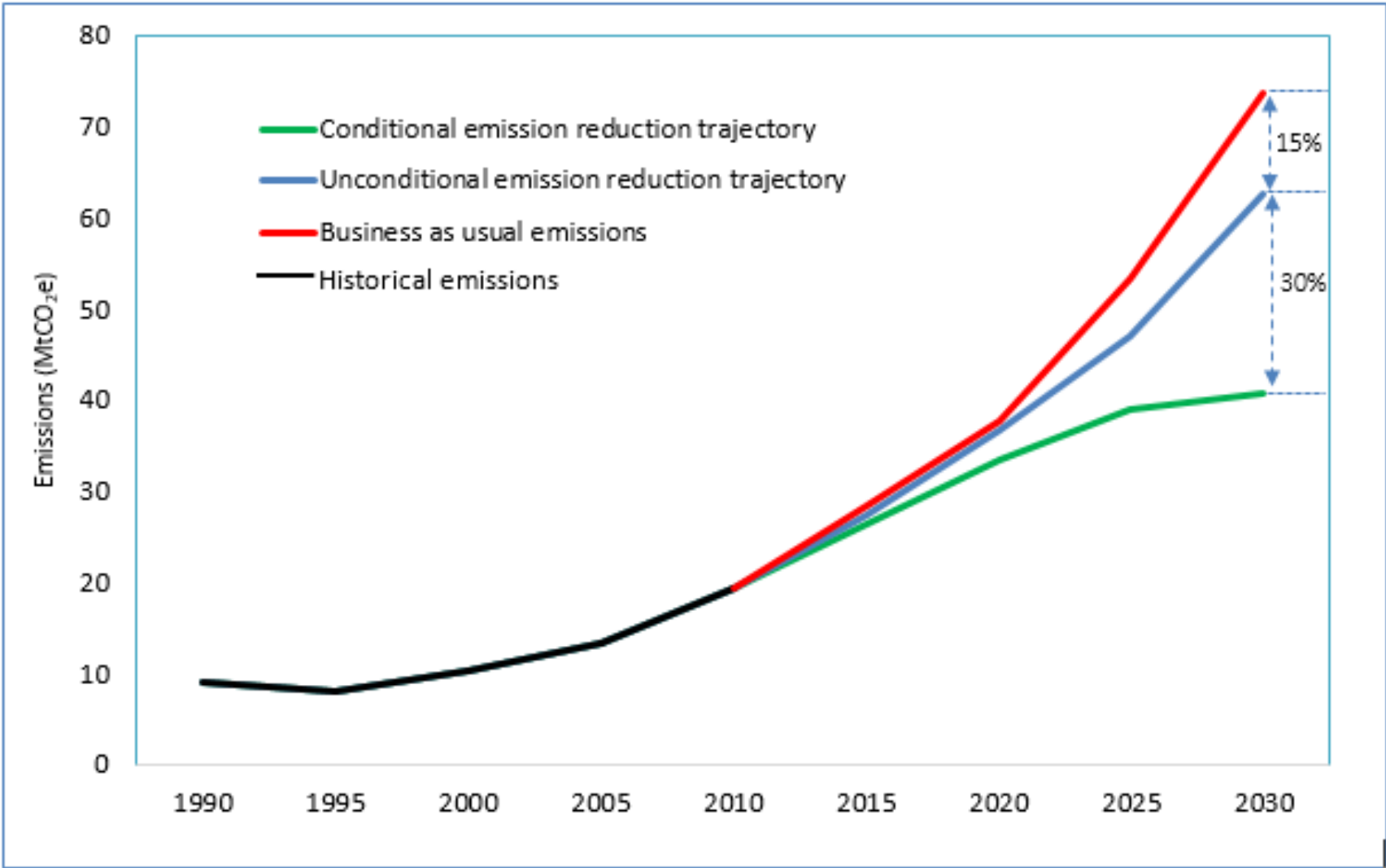
3. Greenhouse gas emissions profile

Emission trends by sectors

Emission Trends by gases

4. GHG emissions mitigation opportunities

5. Summary table of mitigation actions and their effects

No	Mitigation Actions	GHG Impact (kt)	Co-benefits	Cost ($) in mil	Status
1	Solar Lantern Replacement Programme	1.29	Avoided US$ 34million annual kerosene subsidy	2	On-going
2	Solar Electrification Programme	5.21	Support Rural development	Unknown	On-going
3	Efficient Lightning – CFL replacement programme	121	Saved 124MW peak hour electricity	15	Completed
4	Efficient fridge market transformation and rebate programme	3.6	Save energy, money for households, ODS phase out and create downstream jobs	6.1	Completed
5	Installation of Power Factor Correction Devices (Capacitors)	6	Monthly electricity cost saving to consumer	5.9	On-going
6	Bus Rapid Transit in Accra	10.2	5% increase in Non-motorized transport	29	On-going

No	Mitigation Actions		GHG Impact (kt)	Co-benefits	Cost ($) in mil	Status
6	Fuel diversification for thermal electricity generations	Domestic Gas	148.8	Annual US$ 500 million savings from crude oil import and foreign exchange cost	1000	Started
		Nigerian Gas	235.9	94-109million savings from crude oil cost	500	On-going
7	National Forest Plantation Programme		44.7	Annual 29,000 jobs, 370 metric ton of staple food, 15,300 (ha) rehabilitated areas	52	On-going
8	Cocoa REDD+ Programme		1,200	Double cocoa productivity, reduce deforestation	60	Planned
9	Forest Investment Programme		440	Reduce deforestation, Promote Biodiversity conservation	50	On-going
10	Sustainable Land Water Management Project		2.6	Livelihood support, Soil land restoration	8.75	On-going

Selected examples of mitigation actions and their effects

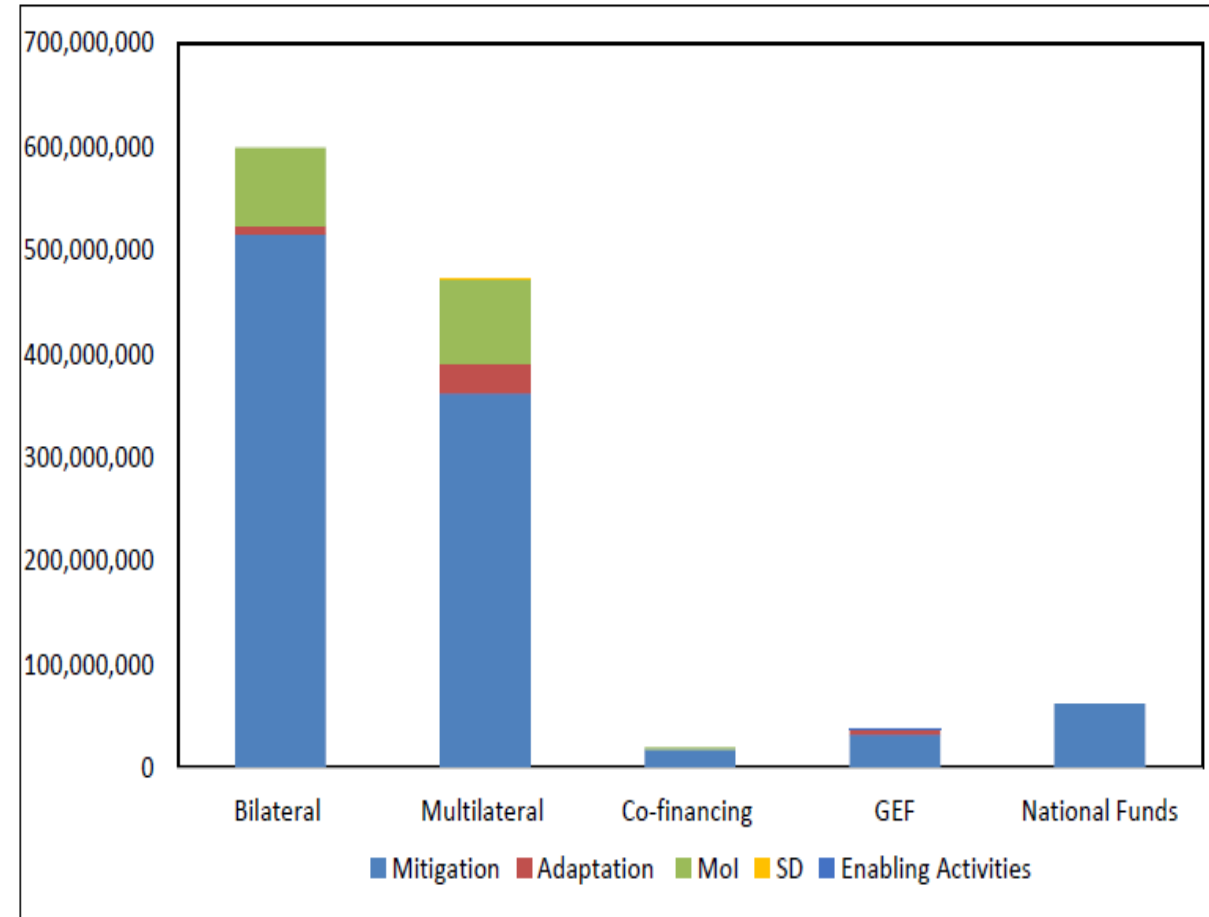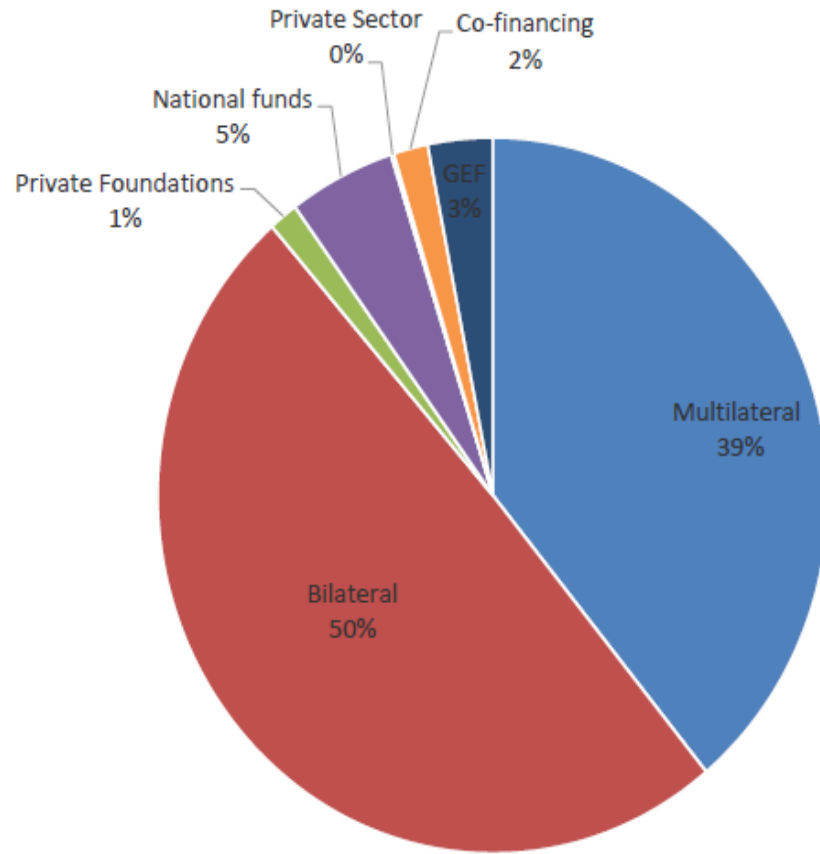| Mitigation Actions	Description
National Forest Plantation Development	• Restore forest cover to 15,300ha in degraded forestlands every year. • Create an average of 29,000 direct jobs yearly. • Produce 370Mt food annually. • 44.7ktCO_2e/yr. emission reduction. • Cost: $52 million. GoG and Private sector
Cocoa REDD+ Programme	• REDD+ result-based payment in Cocoa Landscape • Double yield per ha, average production of 400 kg/ha, and would result in an additional annual income of $650/ha. • 1,200 ktCO2e/yr emission reduction. • Cost: ~$60 million. World Bank
Forest Investment Programme	• Promote Climate-Smart Cocoa Landscapes on 110,000 ha cocoa landscape • Conservation of biodiversity ecological networks and corridors • 440ktCO_2e/yr emission reduction • Cost: $ 50million. World Bank, IFC, AFDB
SLWMP	• Landscape approach to sustainable land and watershed management. • Livelihood support • 2.6 ktCO_2e/yr. emission reduction • Cost: $8.75million. GEF/World Bank

6. Support received and needed

a. non-monetized capacity building and technology support received for the period 2011-2014

No	Description of Activity	Climate Relevance	Donor	Status
1	Information matter project: training on GHG data management, emission baseline and domestic MRV. Third Party Review of National GHG Inventory Review – Energy Section.	Mitigation (GHG Inventory Energy Sector)	German Federal Ministry for Economic Cooperation and Development (BMZ), GIZ	On-going till 2016
2	Sustainable GHG Management Project in West Africa: Third Party Review of NGHGI- AFOLU Section. Training on Land use mapping using Google map engine tool.	Mitigation (GHG Inventory AFOLU sector	Australia, USA, Netherlands, UK, Belgium, New Zealand, UNFCCC, FAO, UNDP, UNDP	On-going till 2017
3	Capacity Development for REDD Project: Hands on training on Use of 2006 IPCC guidelines and ALU software for AFOLU GHG Accounting.	Mitigation (GHG Inventory AFOLU sector	German Federal Ministry for the Environment (BMU). International Climate Initiative, Coalition for Rainforest Nations (CfRN).	2012-2014. Phase 2
4	Training on Non-Annex 1 GHG Inventory software	Mitigation (GHG Inventory Management)	United Nations Framework Convention on Climate Change (UNFCCC) Secretariat	2014
5	Training on Annex 1 Party GHG Review including methodological, reporting and review guidelines.	Mitigation (GHG Inventory Reviews)	United Nations Framework Convention on Climate Change (UNFCCC) Secretariat	On-going
6	CGE Training programmes on National Communications and BUR	Mitigation, Adaptation	United Nations Framework Convention on Climate Change (UNFCCC) Secretariat	On-going
7	Training on Long-range energy alternatives planning system	Mitigation	Stockholm Environment Institute	2013

b. International climate finance flows to Ghana (2011-2014) in US$

c. support needed

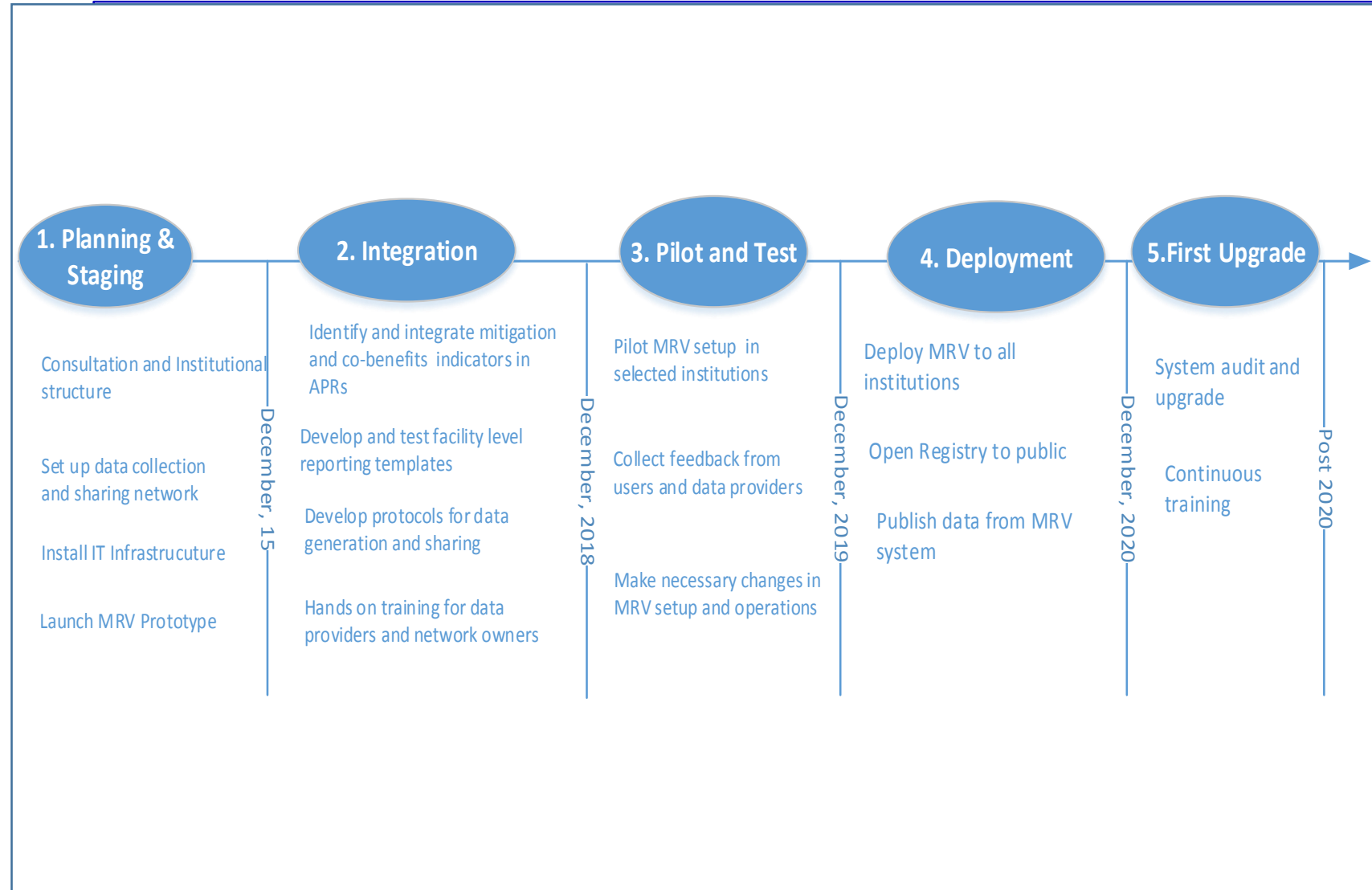| Sector/Activity	Outcome/purpose	Alignment to policy/measures	Amount Needed (US$)	Implementing Entities	Scope of support requested			Type of support needed
					Finance	Technology	Technical Assistance	
Improvements in national data system for continuous data collection AFOLU	Ensure continuous generation of high quality activity data	Focus programme 10: National Climate Change Policy	120,000	Forestry Commission, EPA CERGIS & MoFA	x		x	Grant
Comprehensive study of fugitive emissions in the emerging oil & gas sector	Make available high quality activity and emission factor for the major oil and gas operations	Focus programme 10: National Climate Change Policy	200,000	EPA, Energy Commission, Petroleum Commission	x		x	Grant
Development of country-specific emission factors for road transport, livestock, solid and domestic liquid waste and improvement in data collection systems	Increase confidents in the transport GHG emission estimation	Focus programme 10: National Climate Change Policy	350,000	EPA, Ministry of transport, DVLA, Energy Commission	x		x	Grant
Conduct climate impacts assessment: Use of statistical and dynamic crop and hydrological modeling	Improve methodology for conduct climate impacts assessment as basis for effective adaptation	Focus programme 1 to 9: National Climate Change Policy	300,000	EPA, relevant research and sectors institutions	x			Grant

c. support needed

Sector/Activity	Outcome/purpose	Alignment to policy/measures	Amount Needed (US$)	Implementing Entities	Scope of support requested			Type of support needed
					Finance	Technology	Technical Assistance	
Development and improvement of non-energy sector mitigation assessment	Estimate mitigation potential in non-energy sectors with increased certainty	Low Carbon Development Strategy	70,000	EPA and relevant sectors	x		x	Grant
Facility level carbon accounting programme	Facilitate regular reporting of emission and activity from industry.	Low Carbon Development Strategy	120,000	EPA, Ministry of Trade, Associations of Industry	x			Grant
Waste sector activity data improvement and management project	Identify, collect activity data and improve ways for continuous collection.	Low Carbon Development Strategy	190,000	EPA and Ministry of Local Government and Rural Development	x			Grant
Energy statistics development and improvement project	Improve quality of energy statistics including its metadata and uncertainty estimation	National Energy Planning, Domestic MRV	150,000	Energy Commission, EPA, Ghana Statistical Service	x			Grant
Industry and ODS Activity data collection project	Collect relevant industry and ODS activity data through a national survey	Focus programme 10: National Climate Change Policy	150,000	EPA, Ministry of Trade, Ghana Custom Services	x			Grant

c. support needed

Sector/Activity	Outcome/purpose	Alignment to policy/measures	Amount Needed (US$)	Implementing Entities	Scope of support requested			Type of support needed
					Finance	Technology	Technical Assistance	
Development of guidelines for MRV implementation in M&E institutions	Operationalize domestic MRV system including GHG, Support and policies/measures	Focus programme 10: National Climate Change Policy	120,000	EPA, NDPC, Ghana Statistical Services, Ministry of Finance				Grant
Support to water conservation and irrigation systems	Ensure availability of water for multiple uses (including rainwater harvesting) in a changing climate whilst reducing flood related disaster risk in rural communities.	Focus programme 1: National Climate Change Policy	150,000,000	Local Government Authorities	x		x	Grant
Sustainable wood-based fuel production and development for domestic energy supply	improve efficiency of wood fuel production and ensure development of alternative bio-fuels for sustainable energy supply in Ghana	Focus programme: 4 & 5 of National Climate Change Policy	150,000,000	Ministries of Lands and Natural Resources of Food and Agriculture	x		X	Grant

7. Domestic MRV

✓ MRV system focuses on integration into existing national development M&E framework.

✓ efficient and cost-effective way of mobilizing institutions and setting up processes for performing MRV functions on sustainable basis at both project, sector and national levels

✓ Road map

1. Planning & Staging

Consultation and Institutional structure

Set up data collection and sharing network

Install IT Infrastrucuture

Launch MRV Prototype

December, 15

2. Integration

Identify and integrate mitigation and co-benefits indicators in APRs

Develop and test facility level reporting templates

Develop protocols for data generation and sharing

Hands on training for data providers and network owners

December, 2018

3. Pilot and Test

Pilot MRV setup in selected institutions

Collect feedback from users and data providers

Make necessary changes in MRV setup and operations

December, 2019

4. Deployment

Deploy MRV to all institutions

Open Registry to public

Publish data from MRV system

December, 2020

5. First Upgrade

System audit and upgrade

Continuous training

Post 2020

On-going MRV work

1. Comprehensive institutional arrangement set-up

2. Online data climate data hub developed and deployed

Thank you