First Biennial Update Report (BUR1)

Kingdom of Saudi Arabia

International Consultation and Analysis (ICA)

Facilitative Sharing of Views (FSV)

09 December 2019

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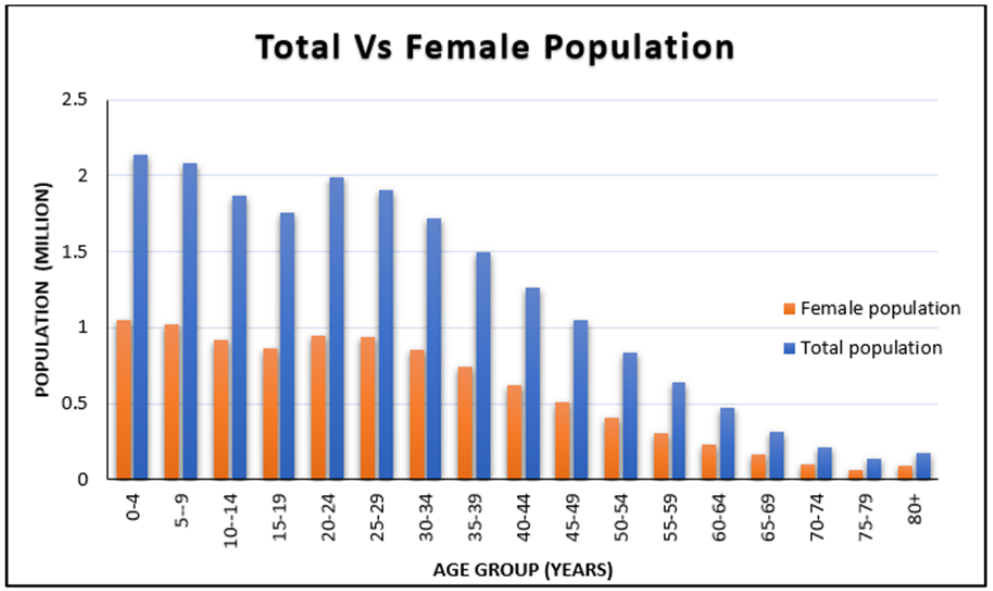
Section 1

National Circumstances

Section 1: National Circumstances

- Saudi Arabia is an arid country with low rainfall and scarce water resources.
- In 2017, the estimated population of Saudi Arabia was 32.55 Million.
- 48% of the growing population of Saudi citizens was below the age of 25.
- Saudi Arabia is the world's largest oil exporting country with a single source economy.
- **"Vision 2030"**



Population of Saudi Citizens (Total and Female) by Age (General Authority of Statistics, 2016)

Section 1: National Circumstances

- 80% of the water demand mainly from Agriculture is fulfilled by abstraction from shallow and deep aquifers.
- 70% of potable water needs are fulfilled by desalinated seawater, with more than 30 desalination plants using MSF, MED and RO techniques producing 1.1076 BCM of potable water and 29.6 Million MWh of electricity.
- Potable water demand is increasing due to increase in per capita consumption as well as population growth.
- 12.3% of total CO2 emissions came from desalination sector in 2012.

Section 1: National Circumstances

Institutional Arrangement

- The Designated National Authority (DNA), Supervised by HRH Prince Abdulaziz Bin Salman, the Minister of Energy, is the sole entity in the Kingdom for coordinating effective responses to climate change issues in Saudi Arabia.
- DNA is also responsible to prepare and periodically submit National Communications and BURs to UNFCCC in coordination with other entities.

Section 2

National Inventory of Greenhouse Gas Emissions and Removals by Sinks for 2012

Section 2: 2012 GHG Inventory
Development Process

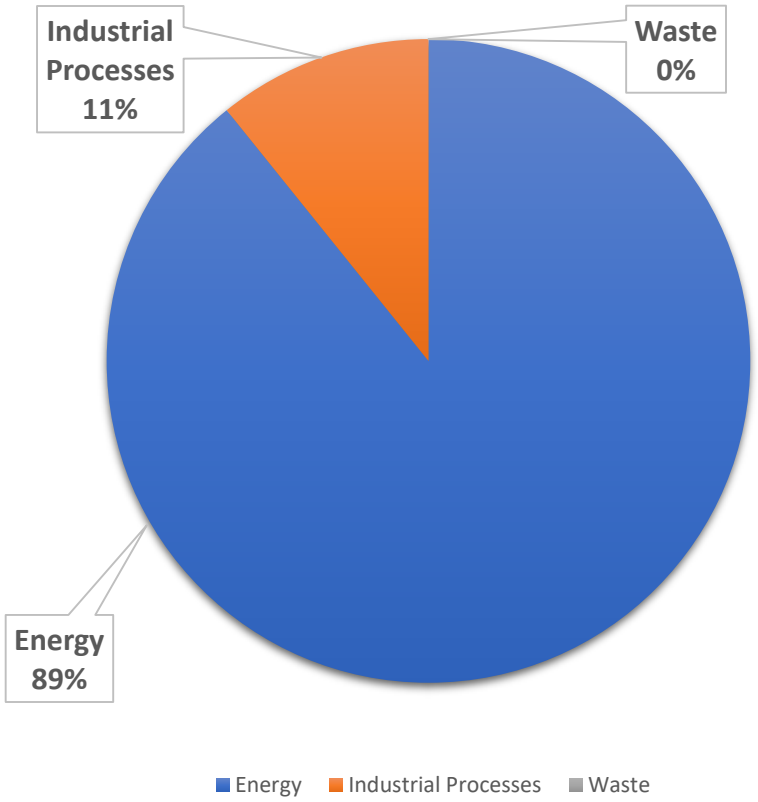
Major Steps of **GHG Development Process following the revised 1996 IPCC Guidelines :**

- Identification of the types of data to be collected
- Identification of the inventory data input sources;
- Development and distribution of questionnaires;
- Collection of information;
- Tabulation of the collected data in the IPCC prescribed format;
- Estimation of greenhouse gas emissions/sinks based on methodologies recommended by the Revised 1996 IPCC Guidelines;
- Development of the national inventory report.

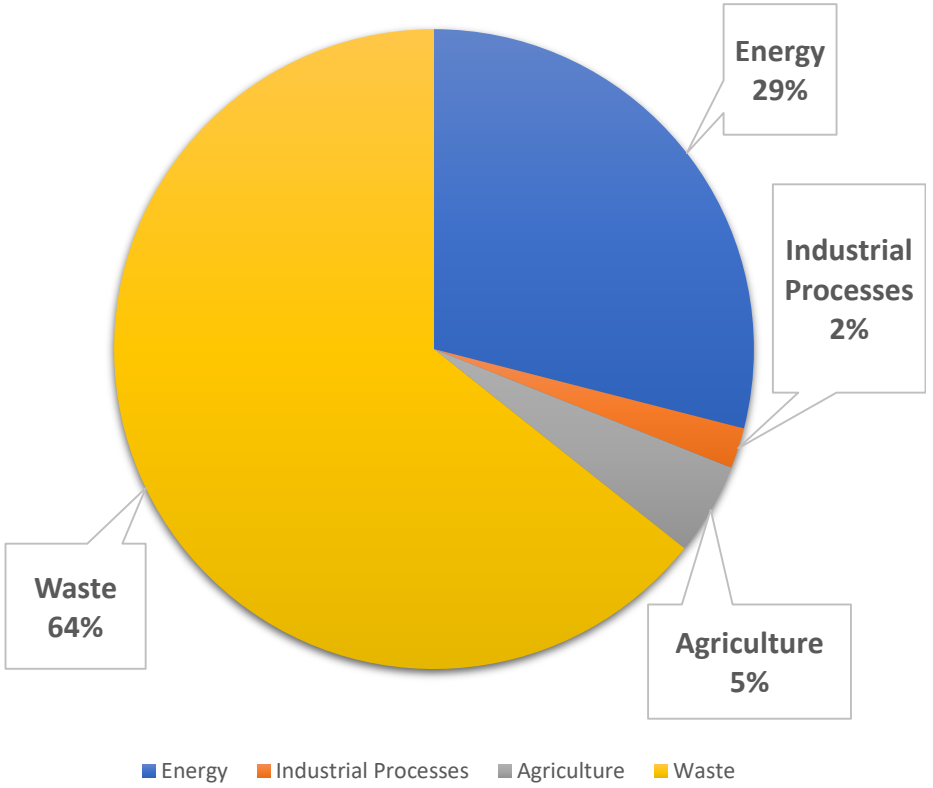
Section 2: 2012 GHG Inventory

Overview of National Inventories of Direct Greenhouse Gases for 2012

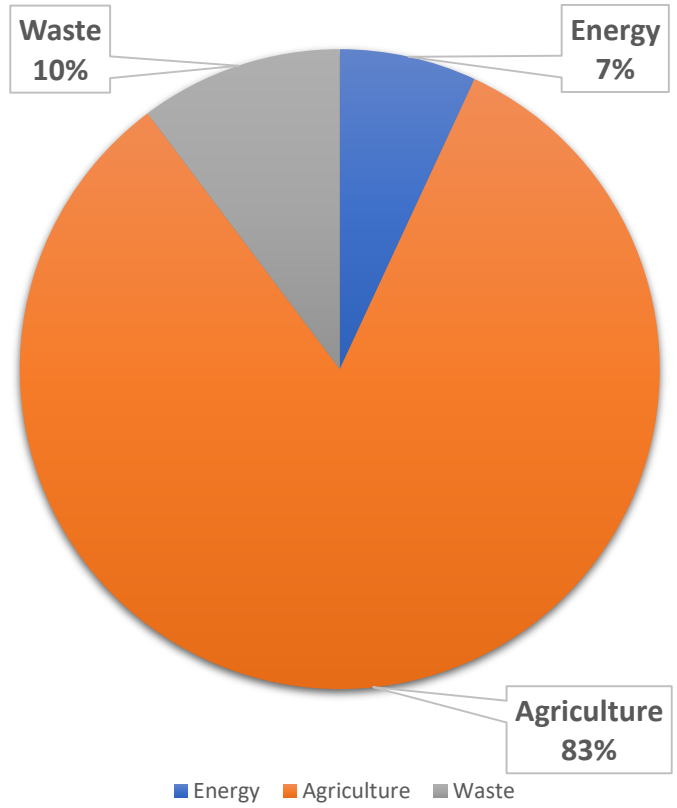
CO2 Emissions for 2012 = 498,853 Gg



CH4 Emissions for 2012 = 1,779 Gg

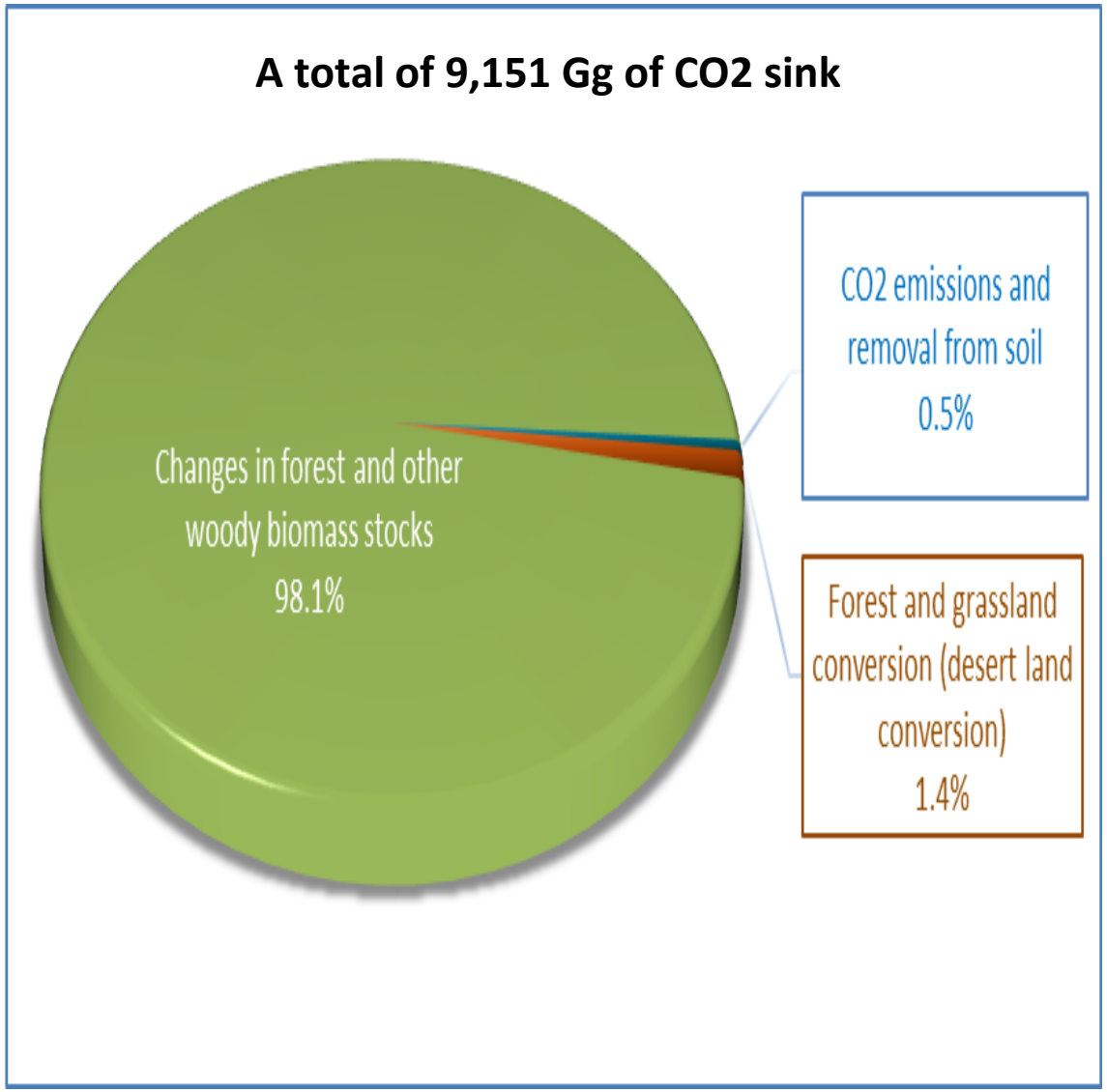


N2O Emissions for 2012 = 38.9 Gg



Section 2: 2012 GHG Inventory

Land-use Change and Forestry Sector



Section 3

Role of Economic Diversification in Addressing Climate Change in KSA

Section 3: Role of Economic Diversification

9th and 10th Development Plans and Vision 2030

- 9th Economic development plan (2010-2014)
  - Government expenditure efficiency & non-oil revenue.
- 10th Economic development plan (2015-2019)
  - Diversifying the economic base.
- "Vision 2030" adopted in 2016 is built around three pillars: **a vibrant society, a thriving economy and an ambitious nation.**
  - Reduce dependence on oil and rely on alternative diverse economy.

Section 3: Role of Economic Diversification

Saudi Arabia's Intended Nationally Determined Contribution (INDC)

- The Intended Nationally Determined Contribution (INDC) was submitted to the UNFCCC on November 2015.
- Saudi Arabia, along with GCC countries, indicated their readiness to put forward their actions and plans in pursuit of Economic Diversification as per Decision 24/CP.18.
- INDC are based on actions, plans and projects.
  - Economic Diversification with Mitigation Co-benefits
  - Adaptation with Mitigation Co-benefits
  - Adaptation Initiatives

Section 3: Role of Economic Diversification

Economic Diversification with Mitigation Co-benefits

- Consistent with vision 2030.
- Actions, plans and projects generating mitigation co-benefits and contribute to economic diversification include the following:
  - Energy Efficiency
  - Renewable Energy
  - Carbon Capture, Storage and Utilization
  - Utilization of Gas
  - Methane Recovery and Flare Minimization

Section 3: Role of Economic Diversification

Adaptation Initiatives with Mitigation Co-benefits

Adaptation initiatives with mitigation co-benefits include a number of actions, plans and projects include the following:

- Water and Wastewater Management
- Urban Planning
- Marine Protection
- Reduced Desertification

Section 4

Analysis of Socioeconomic Impacts of Response Measures

Section 4: Analysis of Socioeconomic Impacts of Response Measures

Introduction

- Adverse impacts of Response Measures on Developing Countries, specifically single source economies.
- Pursue of economic diversification measures with mitigation co-benifits (24/CP.18) to build resilience against the impacts of response measures.
- The Paris Agreement states that Parties are to take into account the concerns of Parties with economies most affected by response measures.

Section 4: Analysis of Socioeconomic Impacts of Response Measures

Policies and Measures of Annex I Parties Having Adverse Impacts on Developing Countries

Examples of Climate Change policies implemented by Annex I parties:

- Carbon taxes
- Biofuel production mandates and renewable fuel standards
- Subsidies for the production or consumption of low-carbon technologies or goods
- Carbon labelling scheme
- Etc …

Section 4: Analysis of Socioeconomic Impacts of Response Measures

Challenges and Support Needed

- The lack of international cooperation in the development of tools **for quantitative** ex-ante and ex-post **analysis of impacts of response measures**;
- unwillingness on the part of developed countries to share information and expertise of **carbon pricing and its negative impacts** on the international pricing of raw materials, processed goods and finished goods.
- technical support is needed in performing rigorous and comprehensive scientific studies to **model, predict and evaluate the impacts of various climate change mitigation measures** on Saudi society, economy and environment.
- Development of **Energy efficient, Carbon capture and storage technologies**.

Section 5

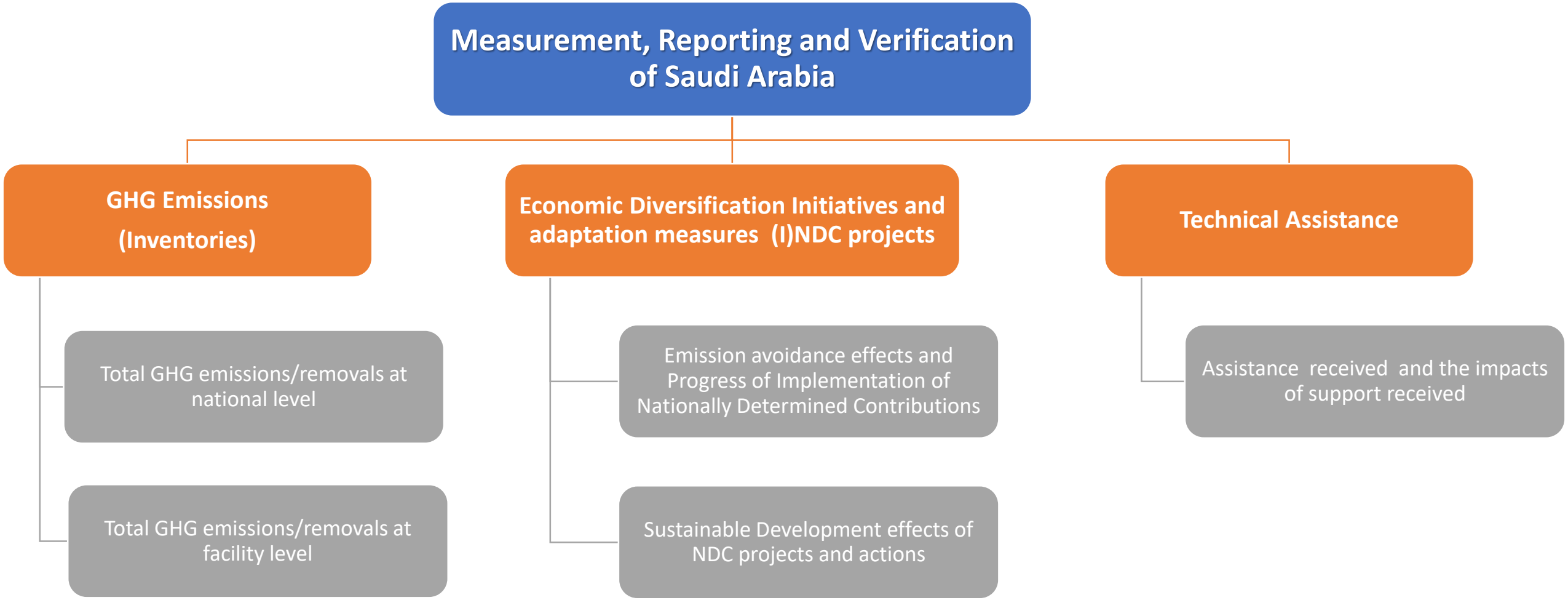
Domestic Measurement, Reporting and Verification (MRV)

Section 5: Monitoring, Reporting and Verification (MRV)

Introduction

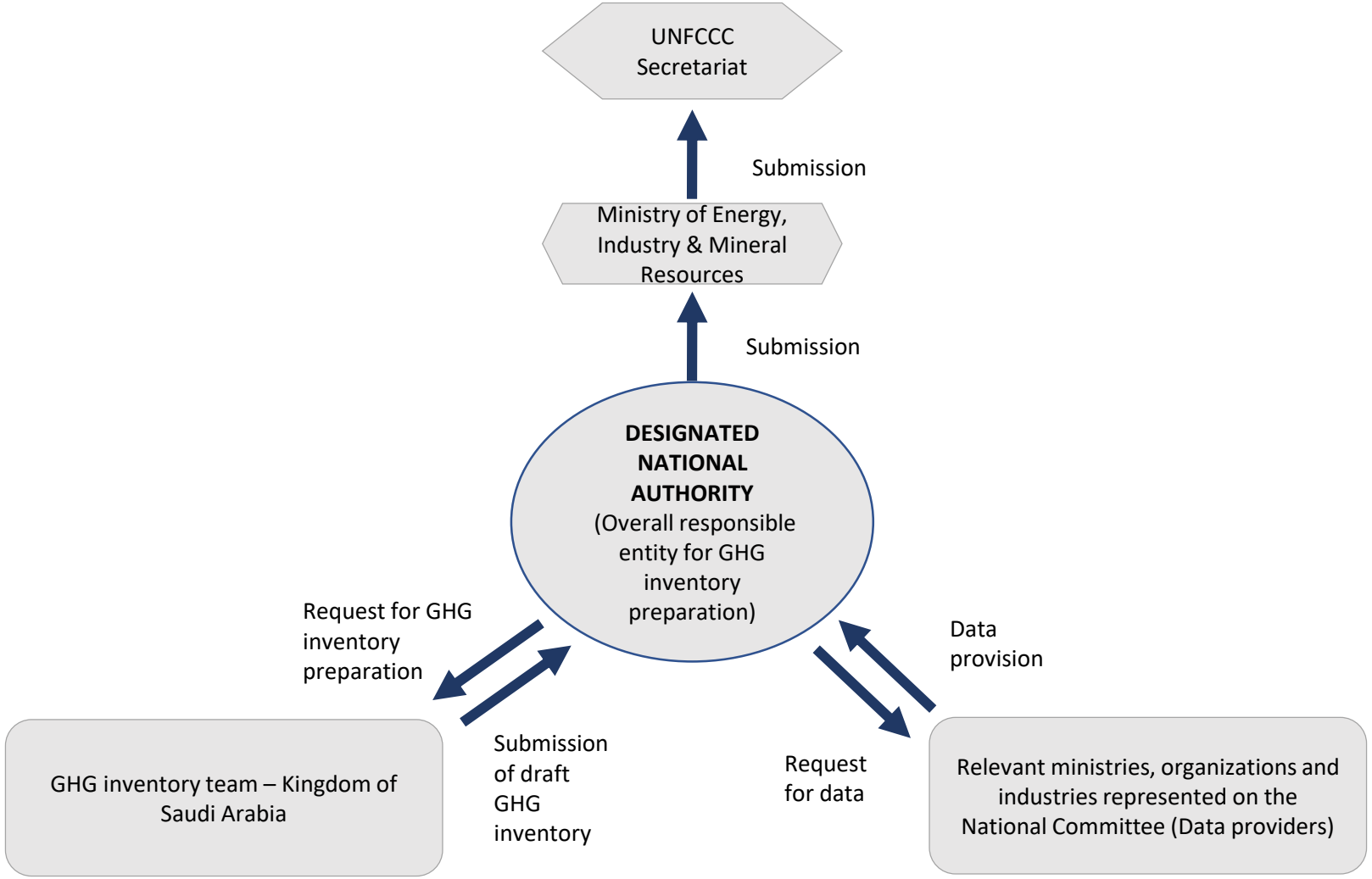
- A domestic monitoring, reporting and verification (MRV) system is essential for ensuring the successful delivery of the Kingdom's economic diversification and adaptation measures with mitigation co-benefits.
- The MRV system is deployed to track progress towards achieving (I)NDC actions, plans and projects and any modifications thereof.
- The Designated National Authority (DNA) is the sole entity within the Kingdom of Saudi Arabia responsible for the design, preparation and implementation of a current and future domestic measurement, reporting and verification system for the country.

Section 5: Monitoring, Reporting and Verification (MRV) Framework



Section 5: Monitoring, Reporting and Verification (MRV)

Institutional Arrangement for Preparation of National GHG Inventories



Section 5: Monitoring, Reporting and Verification (MRV)

Capacity Building Needs

GHG Inventories

High Priority	Medium Priority	Low Priority
Strengthen the capacity and expertise of the national GHG inventory team	Enhance national capacity to implement the improvement plan for Activity Data	Enhance national capacity for GHG data collection and verification
Enhance the national expertise and engagement of relevant stakeholders for reliable LUCF Data		Enhance national capacity for collecting all the relevant parameters

Section 5: Monitoring, Reporting and Verification (MRV)

Capacity Building Needs

Reporting Mitigation Co-Benefits

- Enhance national capacity to identify and use methodologies, along with relevant assumptions, to **track overall progress** and **quantify the results achieved** for mitigation co-benefits of economic diversification and adaptation initiatives actions, plans and projects.
- Capacity-building and training to enhance “learning by doing” for DNA staff to support and manage the necessary data collection for MRV:
  - Identified GHG Emissions Inventory emission quantification methods and accounting standards for mitigation co-benefits of economic diversification and adaptation initiatives.
  - Assistance and support received.

Section 5: Monitoring, Reporting and Verification (MRV)

Overall Capacity Building Needs and Support

Enhance National Capacity:

- Technical assistance, training and workshops
- Access climate finance
- Access technology

VISION رؤية 2030
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KINGDOM OF SAUDI ARABIA

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Thank you for your attention