

# Brunei Darussalam's Initial National Communications

### Under the United Nations Framework Convention on Climate Change (UNFCCC)

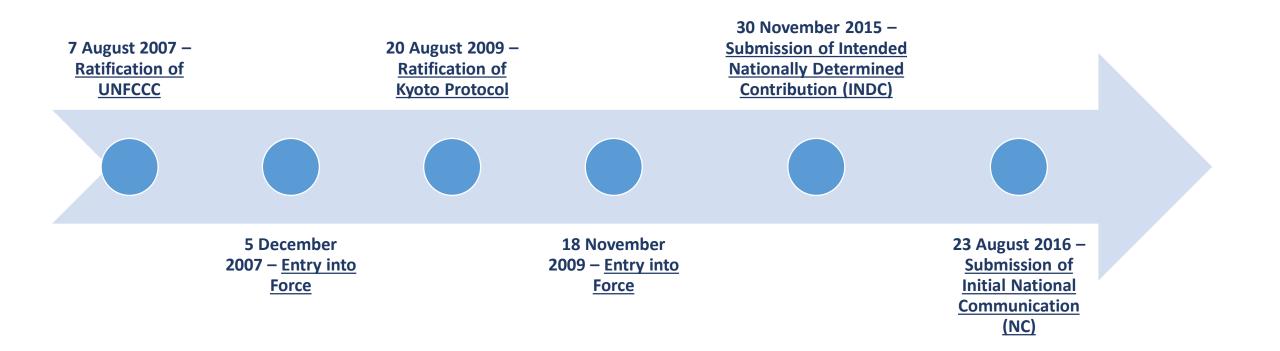
Muhammad Nabih Fakhri Matussin Brunei National Energy Research Institute



- Timeline of Events
- National Circumstances
- Institutional Arrangement
- GHG Inventory for 2010
- Mitigation Measures
- Adaptation Measures



# TIMELINE OF EVENTS



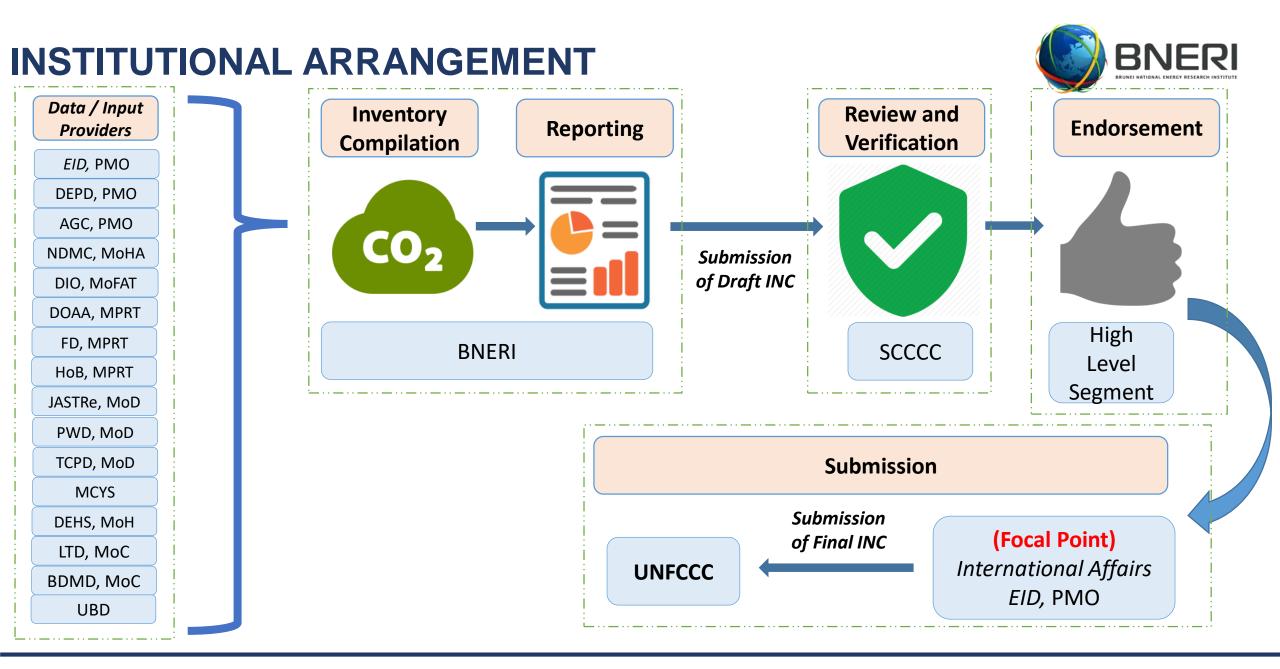


## NATIONAL CIRCUMSTANCES



- Location: North-west coast of Borneo Island. Latitude 4 30'N and longitude 114 40'E, approximately 442 km north of Equator.
- Land Area: 5,765 sq km
- Climate: Equatorial climate with hot temperature all year round
- Population: 386,800 (2010)
- GDP: BND 18,595,000,000 (2010)
- GDP per Capita: BND 44,570.90 (2010)





### GHG INVENTORY FOR 2010 Methodology



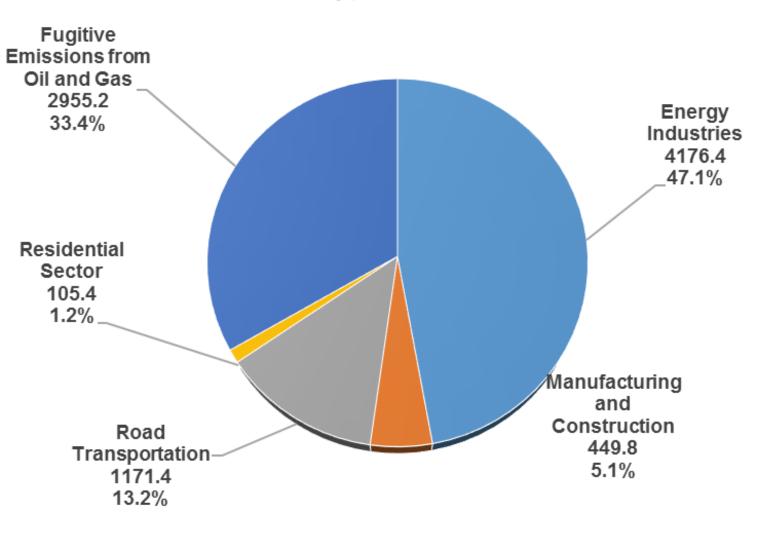
- UNFCCC Guidelines for National Communications for Non-Annex I Parties
- Revised 1996 IPCC Guidelines and 2000 Good Practice Guidance
- Activity data were obtained from relevant agencies:
  - Energy Energy and Industry Department, Prime Minister's Office (EIDPMO)
  - Industrial Processes and Product Use (IPPU) Energy and Industry Department, Prime Minister's Office (EIDPMO)
  - Agriculture Department of Agriculture and Agrifood (DOAA), Ministry of Primary Resources and Tourism (MPRT)
  - Waste Department of Environment, Parks and Recreations (JASTRe), Ministry of Development (MoD)
  - Land Use Change and Forestry (LUCF) Forestry Department & the Heart of Borneo, Ministry of Primary Resources and Tourism (MPRT)
- Default Tier 1 emission factors were used across all sectors

#### **GHG INVENTORY FOR 2010** *Summary of GHG Emissions*



Sector	Gg of CO2 equivalent	% Share of Emissions (w.r.t. Total Gross Emissions)
Energy	8,858.2	93.3 %
IPPU	106.7	1.12 %
Agriculture	27.1	0.28 %
LUCF	-2,876.2	30.3 %
Waste	496.6	5.23%
Total Gross Emissions (without LUCF)	9,488.6	
Total Net Emissions (with LUCF)	6,612.4	

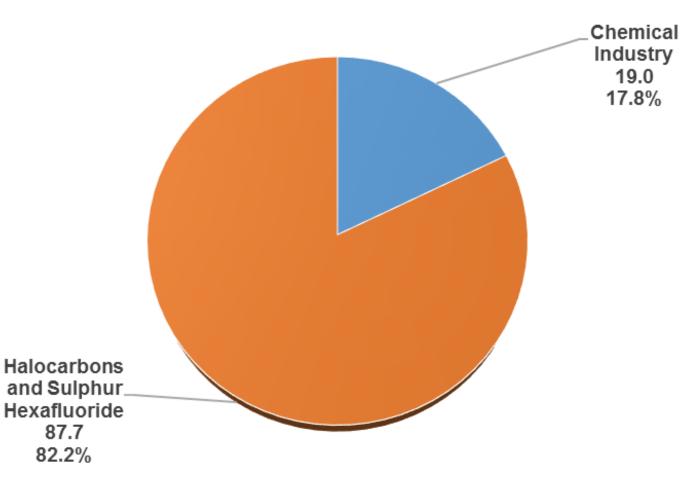
#### **GHG INVENTORY FOR 2010** *Emissions from Energy*





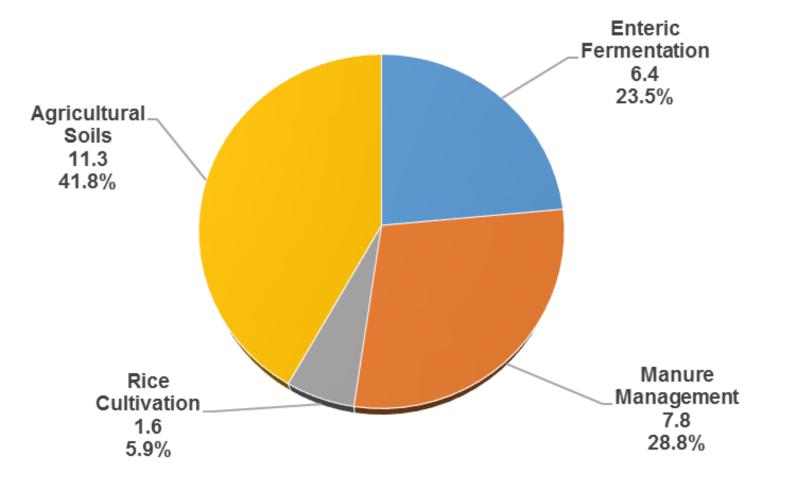
#### GHG INVENTORY FOR 2010 Emissions from IPPU





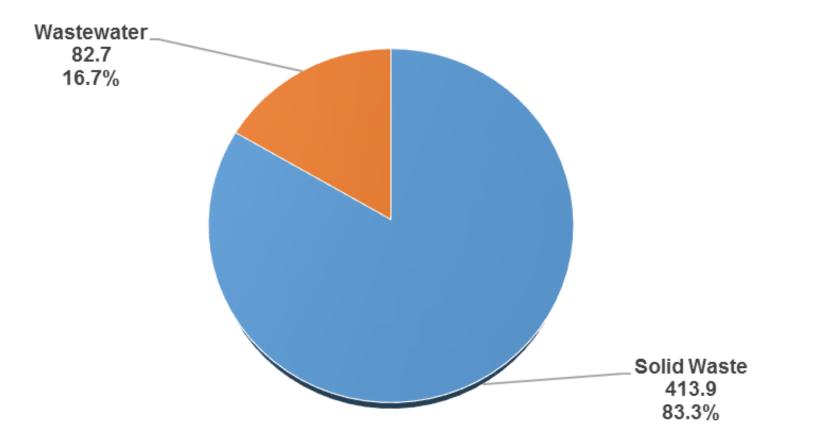
### GHG INVENTORY FOR 2010 Emissions from Agriculture



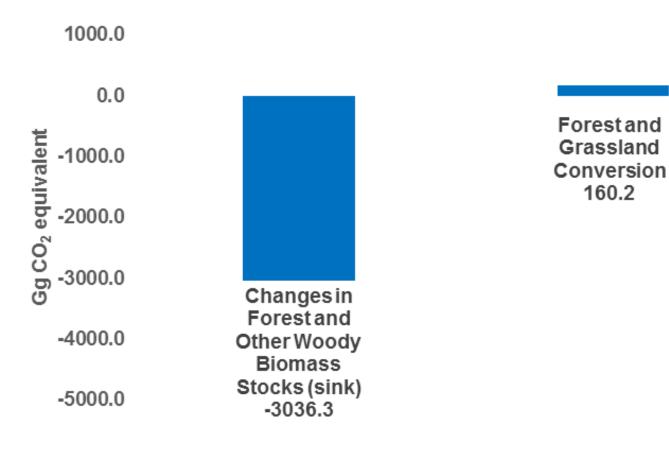


#### GHG INVENTORY FOR 2010 Emissions from Waste





#### **GHG INVENTORY FOR 2010** *Emissions from LUCF*





### **MITIGATION MEASURES**



Energy	<ul> <li>Deployment of Tenaga Suria Brunei (TSB) Solar PV Power Plant in 2010</li> <li>Public outreach and education programmes for awareness raising on energy savings and conservation</li> <li>Incorporation of energy efficiency and conservation in the national education system.</li> </ul>
Forestry and Land Use	<ul> <li>National Forests Policy 1989 – Devote 55% of its land area as forest reserves.</li> <li>Timber harvesting for domestic timber is confined only to production forests.</li> </ul>
Waste Management	<ul> <li>Waste minimisation to reduce waste generation</li> <li>15% waste recycling rate by 2020</li> <li>'No Plastic Bags on Weekend' initiative</li> <li>Paper bags as an alternative to plastic bags for groceries</li> <li>Collection of beverage cartons from the community, schools, commercial areas, etc for the purpose of recycling</li> </ul>

### **ADAPTATION MEASURES**



#### Strategic National Action Plan for Disaster Risk Reduction (SNAP)

- Governance
- Risk assessment and early warning
- Knowledge management
- Vulnerability reduction
- Disaster preparedness

#### **Coastal and Flood Protection**

- Structural measures (flood walls, drains and outlets upgrade, canalisation and retention of ponds, sea walls construction
- Non-structural measures (land-use planning, flood forecasting and early warning system, capacity building, public awareness)

#### Safeguarding Forestry and Biodiversity

- The Heart of Borneo (HoB) Initiative
- Ratification of the Convention of Biological Diversity of the United Nations
- Restrictions and reduced scale on logging activities 100,000 m3 of timber logging per year
- Aerial monitoring and forest patrols

#### **Managing Food Security**

- Boosting local rice production and improving field productivity through modern high-yielding varieties (*Laila* and *Titih*)
- Adequate supply of poultry and eggs, as well as fish and seafood

#### **Strengthening Resilience in Public Health**

- Implementing vector borne diseases control plans and programs
- Application of integrated vector management (IVM)
- Combatting vector-borne diseases through Malaria Vigilance Program, Entomology Program, and Vector Control Programme



# **THANK YOU**