

# Country Report



WINT THIRI SWE

**ENERGY PLANNING DEPARTMENT**

**MINISTRY OF ENERGY**

**THE REPUBLIC OF THE UNION OF MYANMAR**

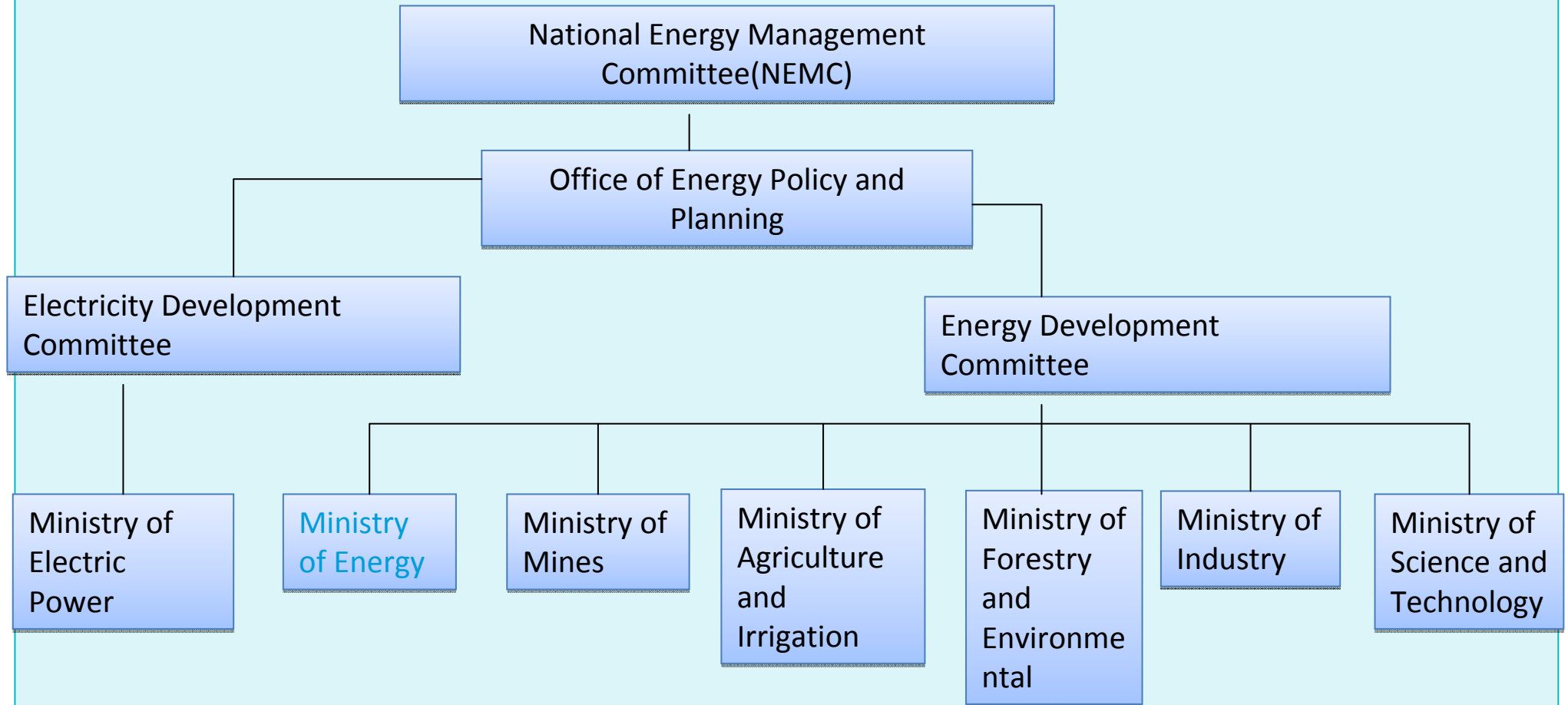
# Location Map of Myanmar



# Country Profile

- ✿ **Area** - **676,577 km<sup>2</sup>**
- ✿ **Population** - **about 60 Millions**
- ✿ **International Border with**
  - ❖ **Bangladesh & India** = **North-West**
  - ❖ **China** = **North- East**
  - ❖ **Laos** = **East**
  - ❖ **Thailand** = **South-East**
- ✿ **Capital City** = **Nay Pyi Taw**
- ✿ **Currency** = **kyat (K)**

# National Energy Management Committee (NEMC)



**MINISTRY OF ENERGY**

**ENERGY PLANNING DEPARTMENT  
(EPD)**

**- Policy Formulation  
- Coordinating  
- Planning**

**MYANMA OIL AND GAS  
ENTERPRISE  
(MOGE)**

**MYANMA PETROCHEMICAL  
ENTERPRISE  
(MPE)**

**MYANMA PETROLEUM  
PRODUCTS ENTERPRISE  
(MPPE)**

**- Exploration and  
Production of Oil and  
Gas**

**- Operate  
Refineries,  
Urea Fertilizer Plants,  
LPG Plants,  
Methanol Plant &  
Transportation of Crude  
Oil &  
Petroleum Products**

**- Distribution of  
Petroleum  
Products**

# Current Energy Policy and Measures

7

## Current Energy Policy



- To implement the status of sustainable energy development
- To promote wider use of new and renewable sources of energy
- To promote energy efficiency and conservation
- To promote use of alternative fuels in household
- To fulfill domestic energy requirement as priority
- To implement effective utilization of discovered crude oil and natural gas resources in the interest of the entire nation including the regions where the discovery was made
- To Promote more private participation



## **1.To implement the status of sustainable energy development**



# Status of Onshore and Offshore Blocks

**Type**      **Description**      **Total**   **Operating**   **Open**

## Onshore Blocks

|                             |                                  |           |           |           |
|-----------------------------|----------------------------------|-----------|-----------|-----------|
| PSC                         | Production Sharing Contract      | 23        | 10        | 13        |
| EP                          | Exploration and Production       | 5         | 2         | 3         |
| RSF                         | Reactivation of Suspended Fields | 10        | 4         | 6         |
| IOR                         | Improved Oil Recovery            | 7         | 1         | 6         |
| MOGE                        | MOGE's oil and gas field areas   | 8         | 2         | 6         |
| <b>Total Onshore Blocks</b> |                                  | <b>53</b> | <b>19</b> | <b>34</b> |

## Offshore Blocks

(Shallow)

|                                      |                               |           |           |          |
|--------------------------------------|-------------------------------|-----------|-----------|----------|
| A                                    | Arakan (Rakhine) Coastal Area | 7         | 5         | 2        |
| M                                    | Mottaban & Taninthayi         | 20        | 13        | 7        |
| <b>Total Shallow Offshore Blocks</b> |                               | <b>27</b> | <b>18</b> | <b>9</b> |

(Deep)

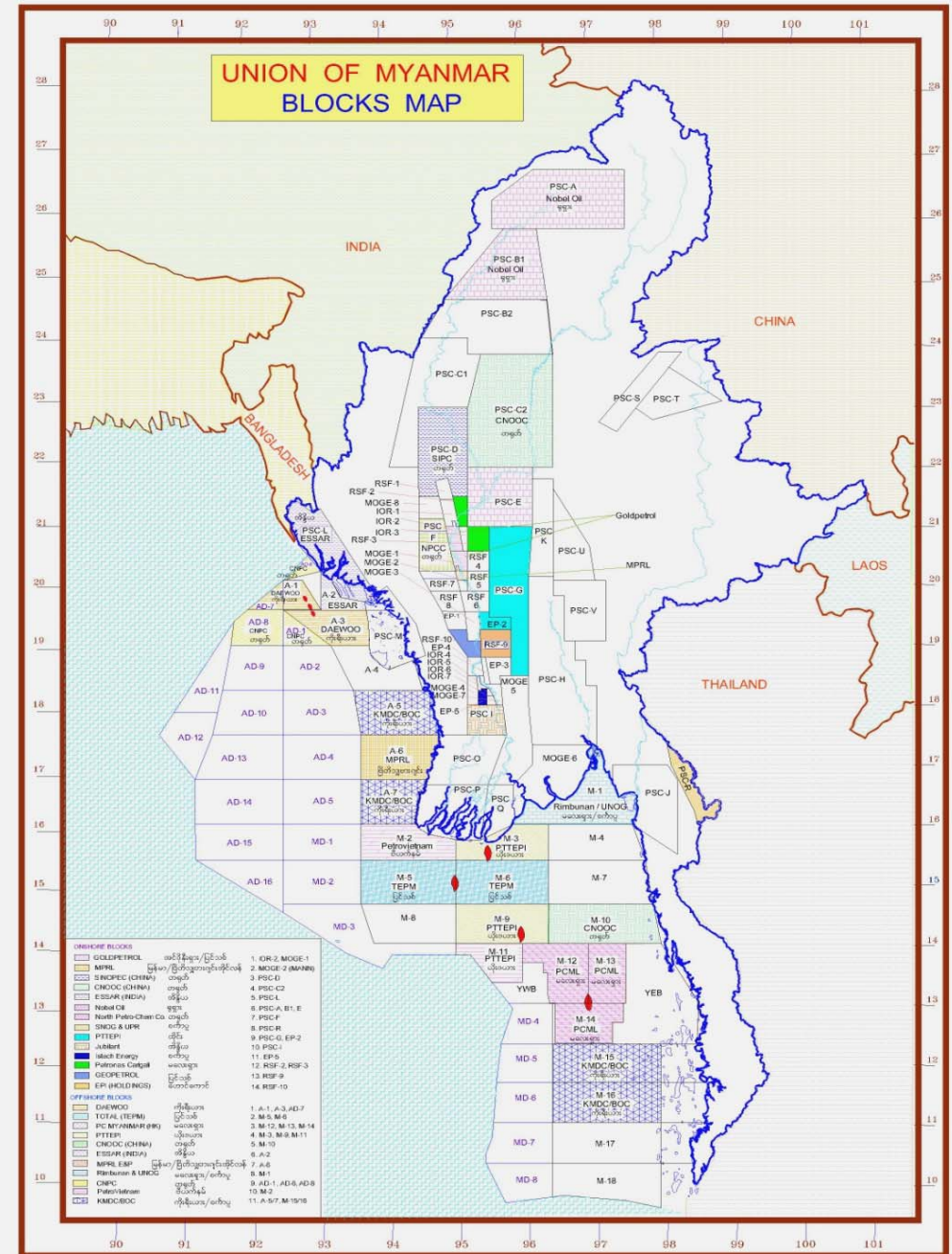
|                                      |                             |           |           |           |
|--------------------------------------|-----------------------------|-----------|-----------|-----------|
| AD                                   | Arakan Offshore Area (Deep) | 16        | 4         | 12        |
| MD                                   | Mottama/ Taninthayi (Deep)  | 8         |           | 8         |
| <b>Total Offshore Coastal Blocks</b> |                             | <b>24</b> | <b>4</b>  | <b>20</b> |
| <b>OFFSHORE TOTAL</b>                |                             | <b>51</b> | <b>22</b> | <b>29</b> |

**Block Total**

|            |           |           |
|------------|-----------|-----------|
| <b>104</b> | <b>41</b> | <b>63</b> |
|------------|-----------|-----------|

## Status of Blocks

• **19** onshore blocks and **22** offshore blocks are operating by multi companies.



## 2.To Promote Wider Use of New and Renewable Sources of Energy



### Renewable Energy Sector in Myanmar

|                     |   |  |
|---------------------|---|--|
| <b>Biomass</b>      | - | About 30% of total land area covered with forest |
| <b>Wind</b>         | - | 365.1 TWH per year                               |
| <b>Solar Power-</b> |   | 51973.8 TWH per year                             |
| <b>Geothermal -</b> |   | 93 Locations                                     |

## **3.To Promote Energy Efficiency and Conservation**

## **CNG Conversion Programme**



- **Myanmar is substituting liquid fuels with natural gas in industrial and transport sectors wherever possible.**
- **Compressed Natural Gas (CNG)/ Natural Gas Vehicle (NGV) conversion programme was initiated starting from 1986 and a total of 27,472 vehicles were converted and a total of 45 refuelling stations are constructed around the country within 25 years.**
- **More CNG refuelling stations will be installed along the existing domestic pipeline route. 35,556 lG/Day of Gasoline and 76,495 lG/Day of HSD are saving by substitution of CNG vehicles. CNG price in Myanmar is low compared with the neighbouring countries.**

# Myanmar's Energy Efficiency Goals

(ASEAN EAS-ECTF Programme)



## Goals

- ❖ Save 5% of total Primary energy consumption for 2020 and 8% for 2030 compared to base year 2005.
- ❖ Improve 16% efficiency in all sectors' end-use by 2030.

# Energy Efficiency Plan



- **Well- defined EE policy guideline**
- **Detailed information on energy use**
- **Training and dissemination EE and EC practices**
- **Energy Prices**
- **Institutional strengthening and capacity building**

## 4. To Promote Use of Alternative Fuels in Household



- Nearly 30% of total land area covered by forests
- Fuel wood plantations established as Community Forests for household usage
- Efficient Stoves are encouraged
- To use Liquefied Natural Gas(LNG) as alternative fuel

## 5. To fulfill domestic energy requirement as priority



- 200 mmcfd from Yadana project
- 10000 barrels of associated condensate from Yedagun project
- 65 mmcfd from onshore fields
- Renegotiation with contractors of Zawtika Project and Shwe project to get back some gas for domestic use
- Plan to use all of discovered natural gas and crude oil from Myanmar Offshore block M3 project



6. To implement effective utilization of discovered crude oil and natural gas resources in the interest of the entire nation including the regions where the discovery was made



- 100 mmcfd from Zawtika project for Yangon area
- 25 mmcfd from Yadana project for Kanbaw area
- 20 mmcfd from Shwe project for Kyaukphyu area

## 7. To promote more private participation in energy sector



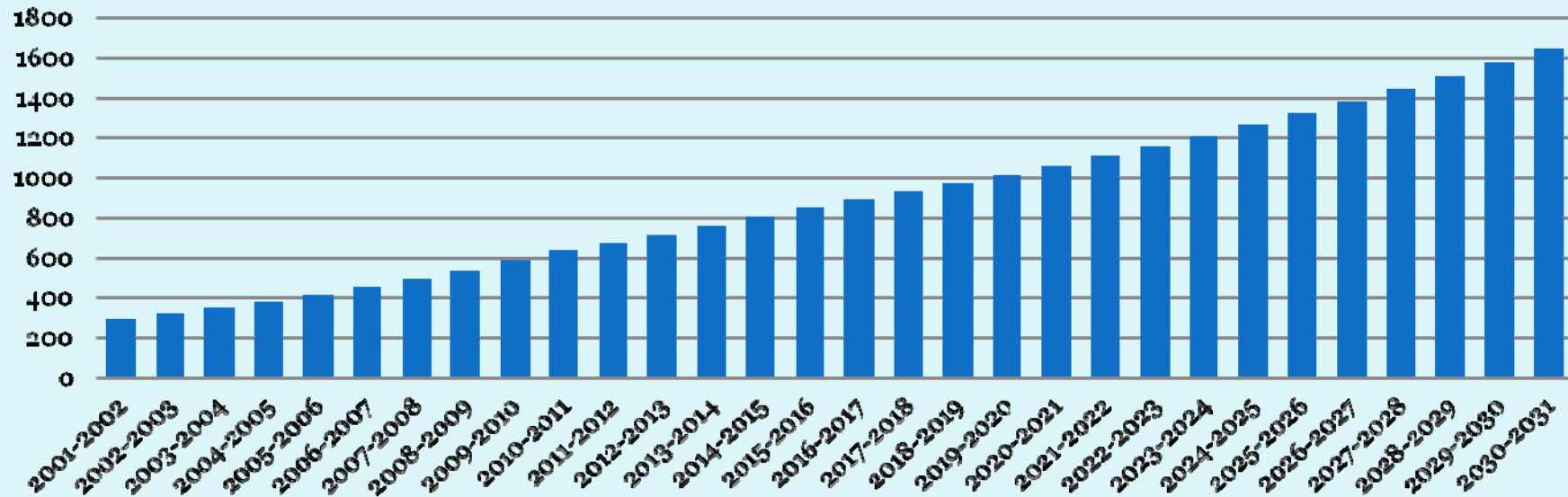
- **260 filling stations privatized on 10 June 2010**
- **Leasing of Lube Blending Plant in Thanlyin Refinery compound**
- **Invitation of investment for Thanlyin Refinery on the basis of JV**
- **Invitation of investment for Aviation Refueling Service**
- **1<sup>st</sup> bidding round for onshore blocks in 2011**
- **2<sup>nd</sup> bidding round for onshore blocks at the beginning of 2013**
- **Bidding round for offshore blocks in April 2013**

# Natural Gas and Crude Oil



**DEMAND AND SUPPLY**

# Natural Gas Demand(Past & Outlook)



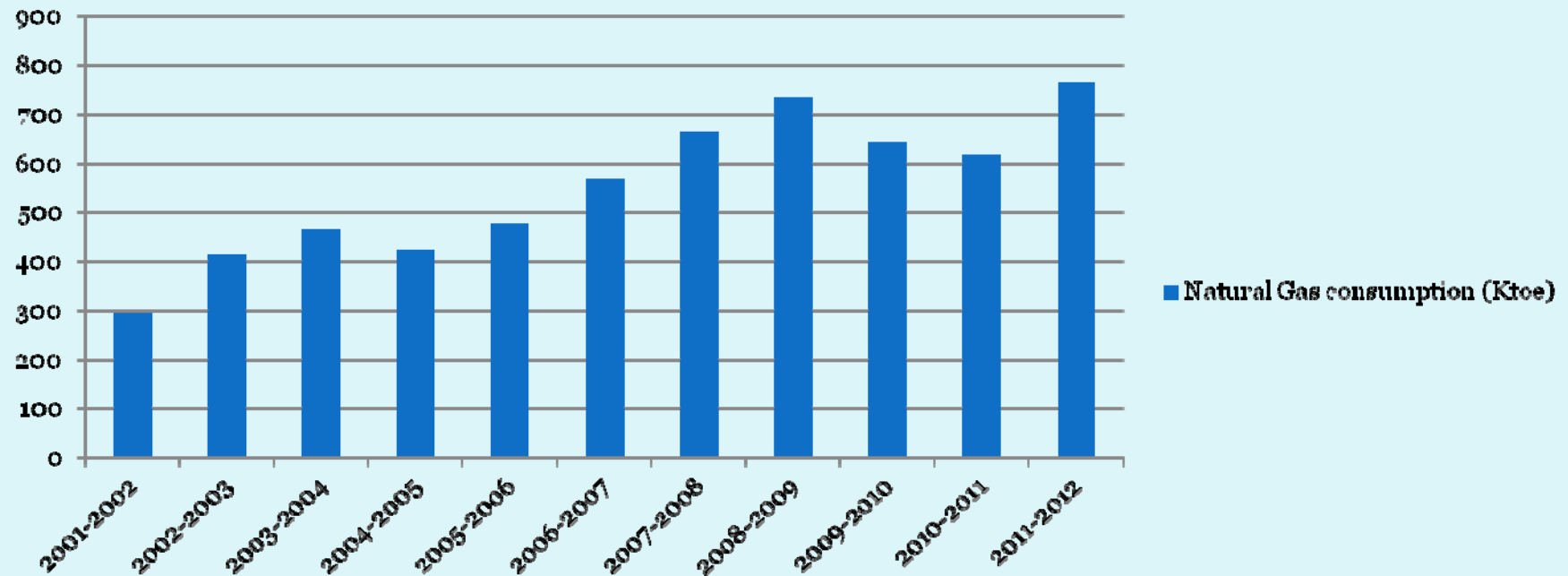
Source: Gas Sector Plan (2011)

■ Gas Demand

# Natural Gas Consumption(Past)



## Natural Gas Consumption (Ktoe)

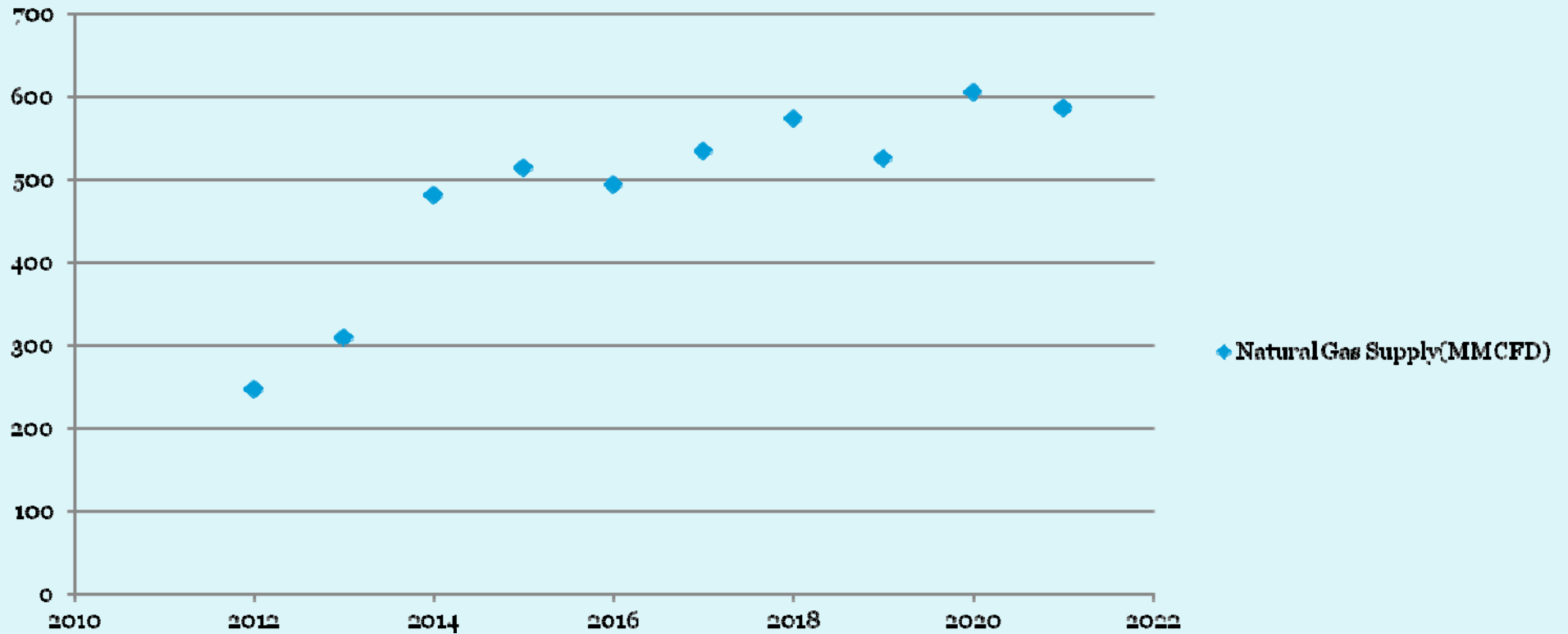


• Source: Final Energy Consumption by EPD

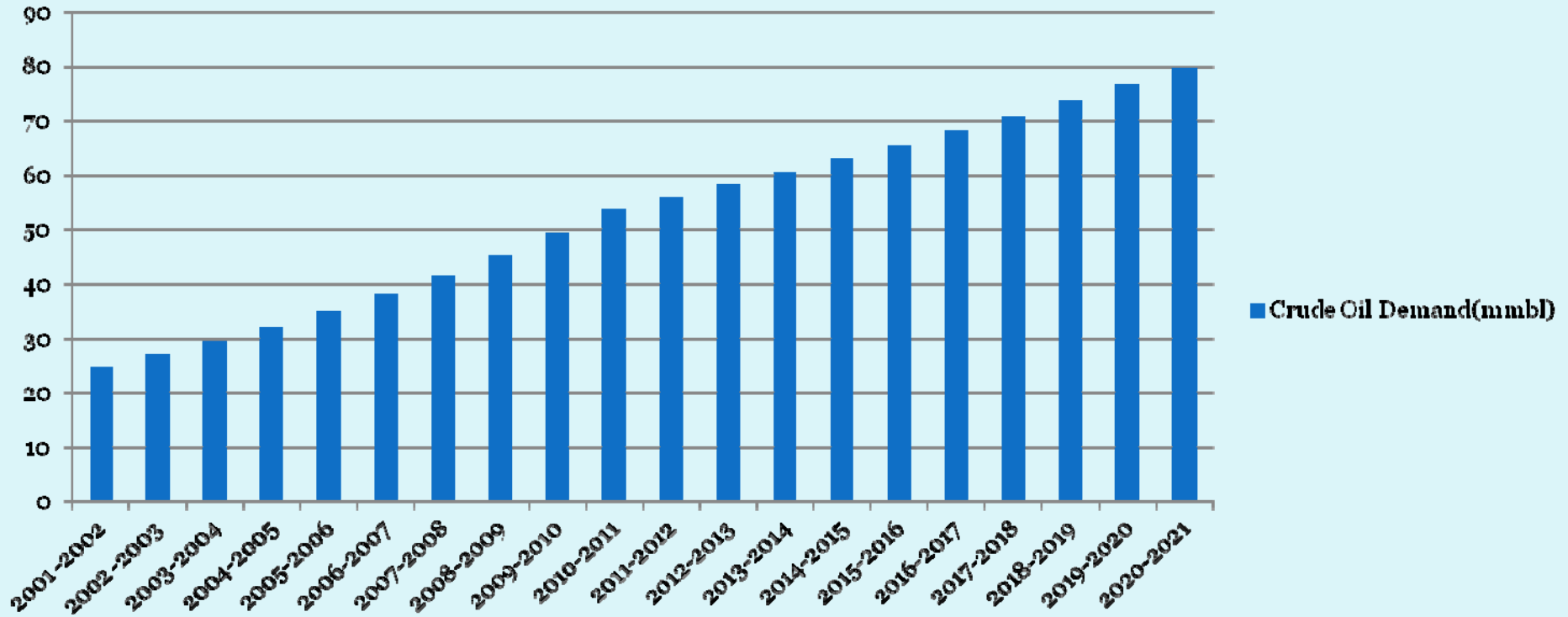
# Outlook of Natural Gas Supply



## Natural Gas Supply (MMCFD)



# Crude Oil Demand(Past & Outlook)

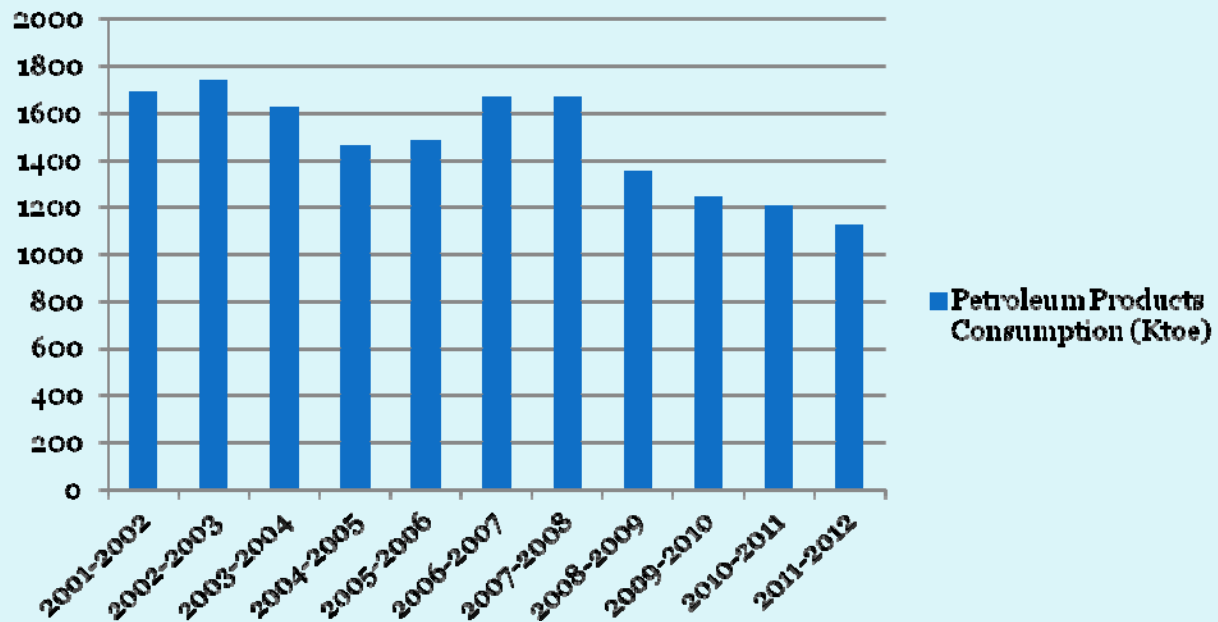


Source: 30 Year Plan by EPD

# Crude Oil Consumption



## Petroleum Products Consumption (Ktoe)



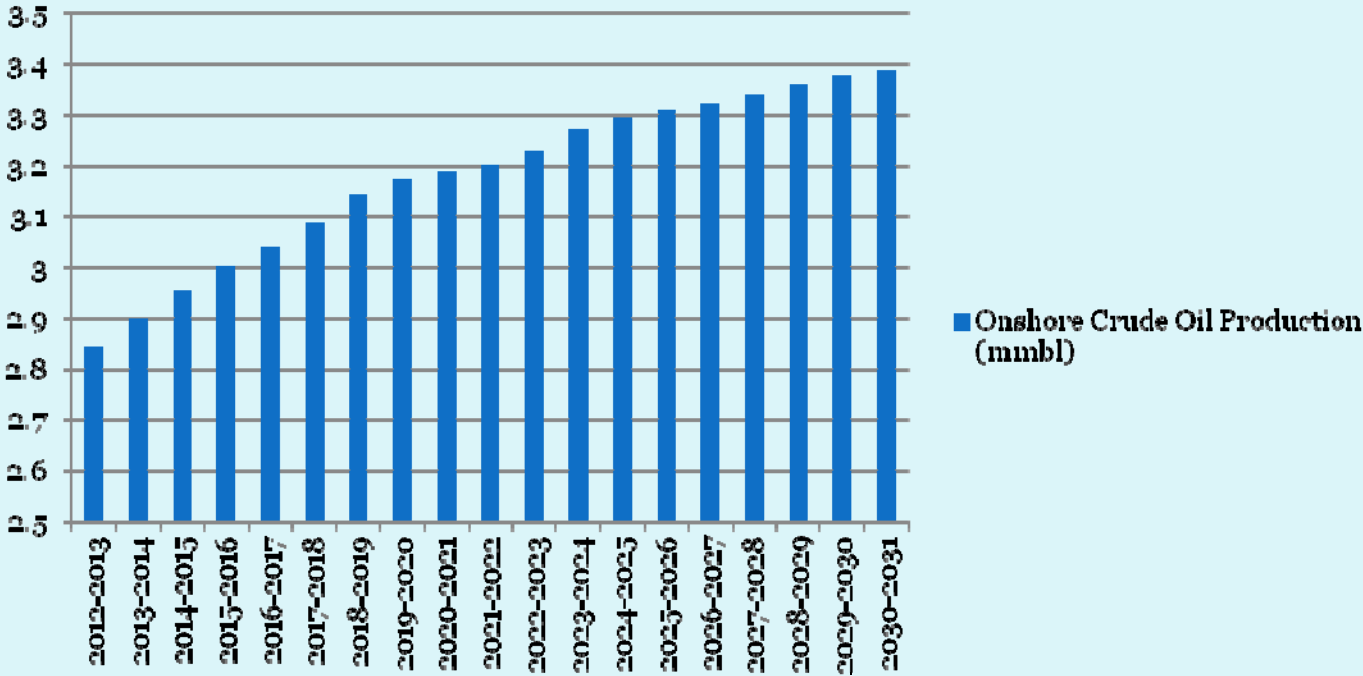
- Source: Final Energy Consumption by EPD



# Outlook of Crude Oil Supply



## Onshore Crude Oil Production (mmbbl)



• Source: 30 Year Plan by EPD

# Major Difficulties and Bottlenecks



## Current Major Difficulties and Bottlenecks in Formulating Energy Policy



### Main Challenge

- **No exact method for demand forecasting and supply planning**
- **Lack of data quality improvement**
- **Lack of data analysis and energy data base management**
- **Lack of statistical technique in line with international standard**

# Difficulties in framing national energy policy



- ❖ Institutional framework
- ❖ Legal and regulatory framework
- ❖ Data information and reporting
- ❖ Financing and private sector participation
- ❖ Community participation
- ❖ Research and Development
- ❖ Capacity building
- ❖ Monitoring and evaluation

# **Difficulties and bottlenecks in formulating national energy policy**



- ❖ **Lack of integrated and long-term energy planning and development**
- ❖ **Lack of pricing mechanism**
- ❖ **Limited number of staff dedicated to energy policy and regulation.**
- ❖ **Low electrification ratio**
- ❖ **High losses in transmission and distribution networks for power and natural gas**
- ❖ **Persistent blackouts in Yangon region in dry season**
- ❖ **Low electricity tariff**
- ❖ **Poor operation and maintenance of power generation , transmission, and distribution networks**

# Expectation



# Subjects I would like to study in this program



- **Methods of forecasting energy demand and supply planning** (for the stable supply to meet national energy demand is main objective of policy formulation )
- **Global energy situation**( it should be taking into account in framing national energy policy)
- **General basic facts in the formulation of energy policy** (national energy policy is now under process of drawing up by our organization)
- **Programs for promotion of Renewable Energy as well as Energy Efficiency and Conservation**(our country needs to develop RE and EE&C)
- **Environmental Impacts** (Environmental Conservation is one of the major issues in the Contents of Energy Policy)

**THANKYOUFORYOURKINDATTENTION**



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