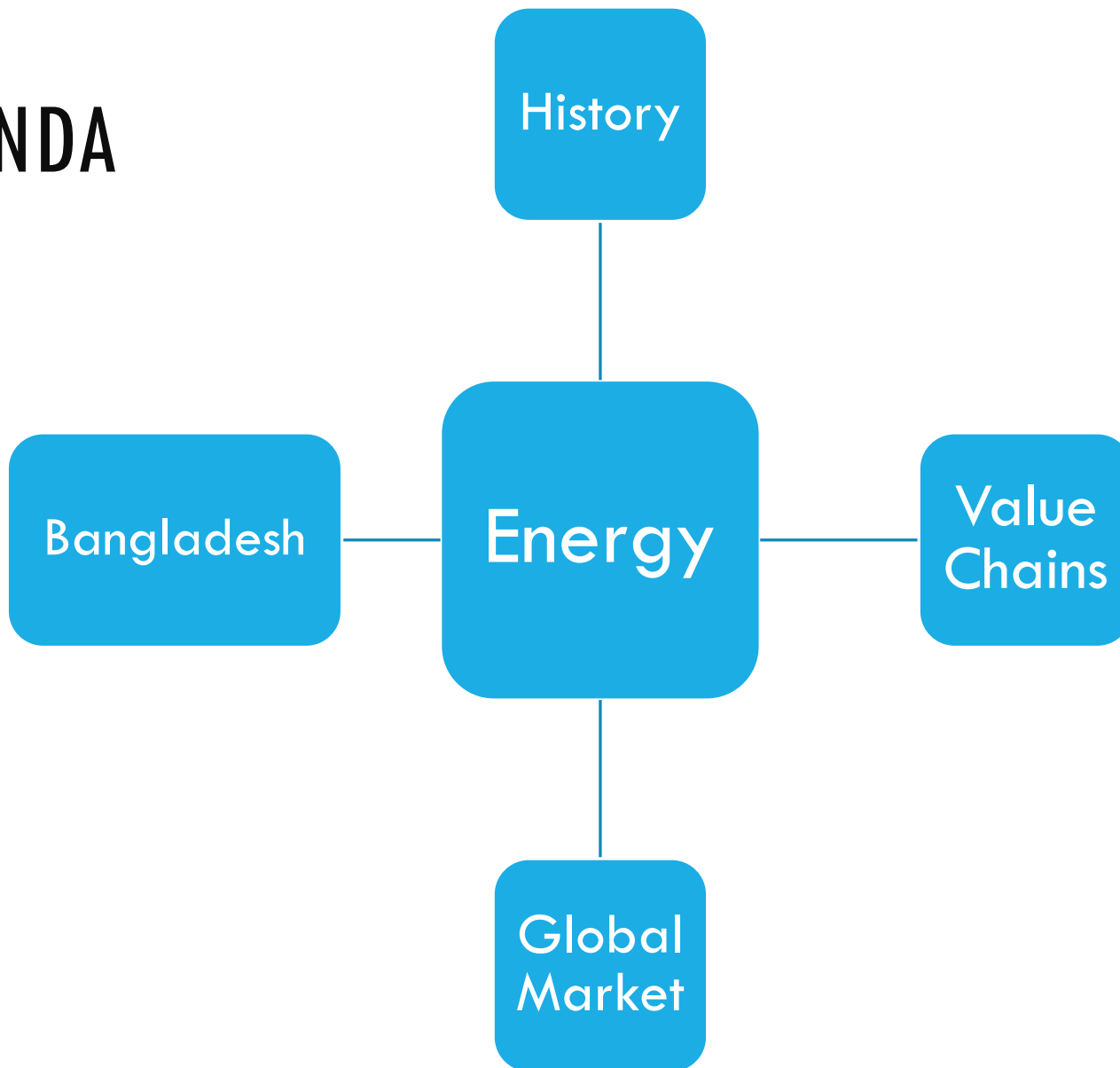


**OIL DRIVES THE WORLD
BUT — WHO DRIVES OIL?**

AGENDA



ABOUT THE SPEAKER



- Born and grew up in Dhaka
- G-Lab, Dhaka College, DU – IBA
- Netherlands Fellowship Program
- Shell 2000-2013
- UK, Singapore, Malaysia, Brunei, Western Europe, Russia, West and Southern Africa, UAE, Qatar, Saudi Arabia.
- Gas and Oil Production, Refining, Chemicals, Chemicals, Renewables.
- Saudi Arabia 2013 –
- Large Integrated Projects

JARGONS

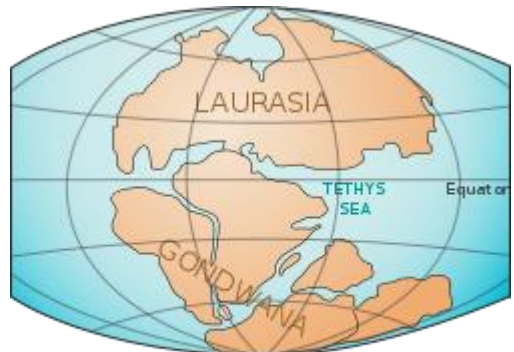
Barrel – 42 Gallons or 159 Liters, originally used to store beverages

MMBtu - Amount of work needed to raise the temperature of one pound of water by one degree Fahrenheit (one four-inch match consumed completely).

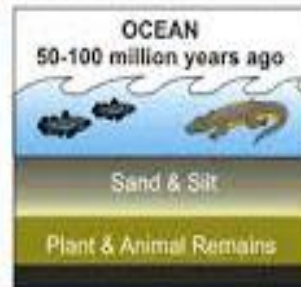
WHAT IS PETROLEUM



WHAT IS PETROLEUM

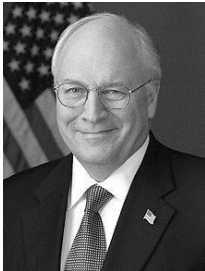
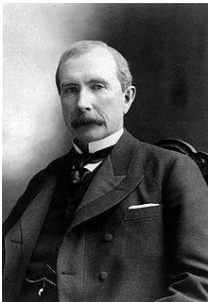
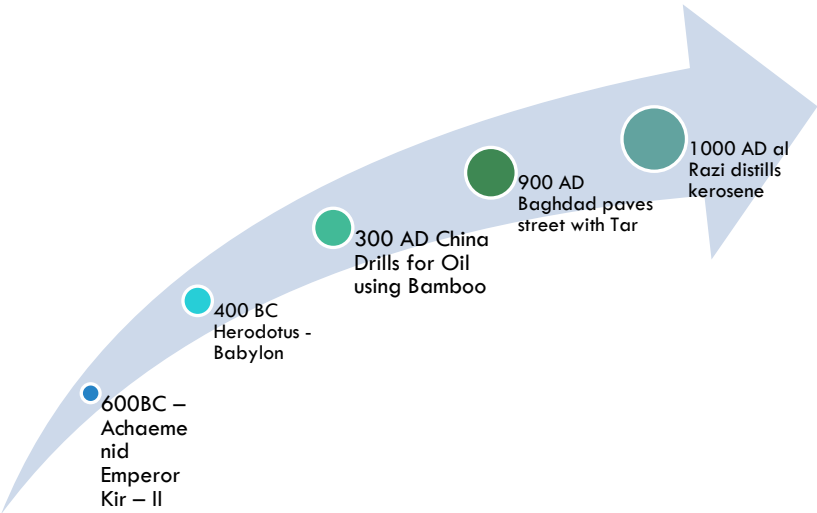


TRIASSIC
200 million years ago

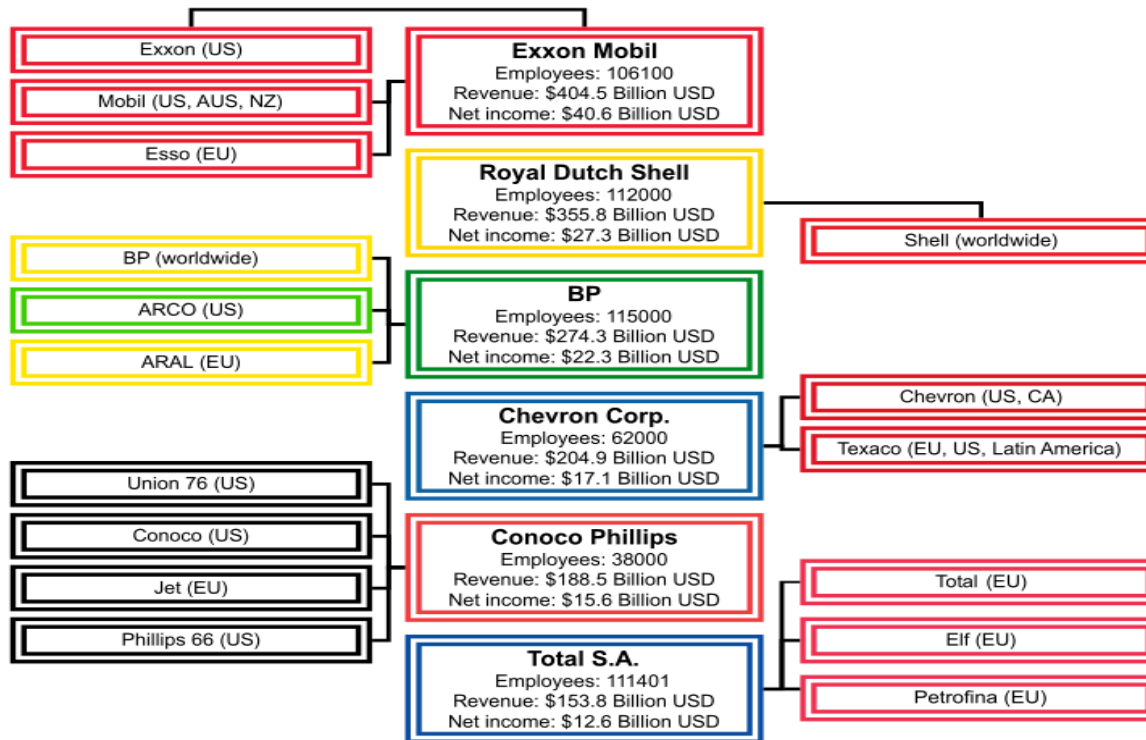


- Fossilized organic materials, such as zooplankton and algae.
- Vast quantities of these remains settled to sea or lake bottoms, mixing with sediments and being buried under anoxic conditions.
- As further layers settled to the sea or lake bed, intense heat and pressure build up in the lower regions.
- This process caused the organic matter to change, first into a waxy material known as kerogen, and then with more heat into liquid and gaseous hydrocarbons via a process known as catagenesis.
- Formation of petroleum occurs from hydrocarbon pyrolysis in a variety of mainly endothermic reactions at high temperature and/or pressure

HISTORY OF PETROLEUM



EVOLUTION OF THE GIANTS



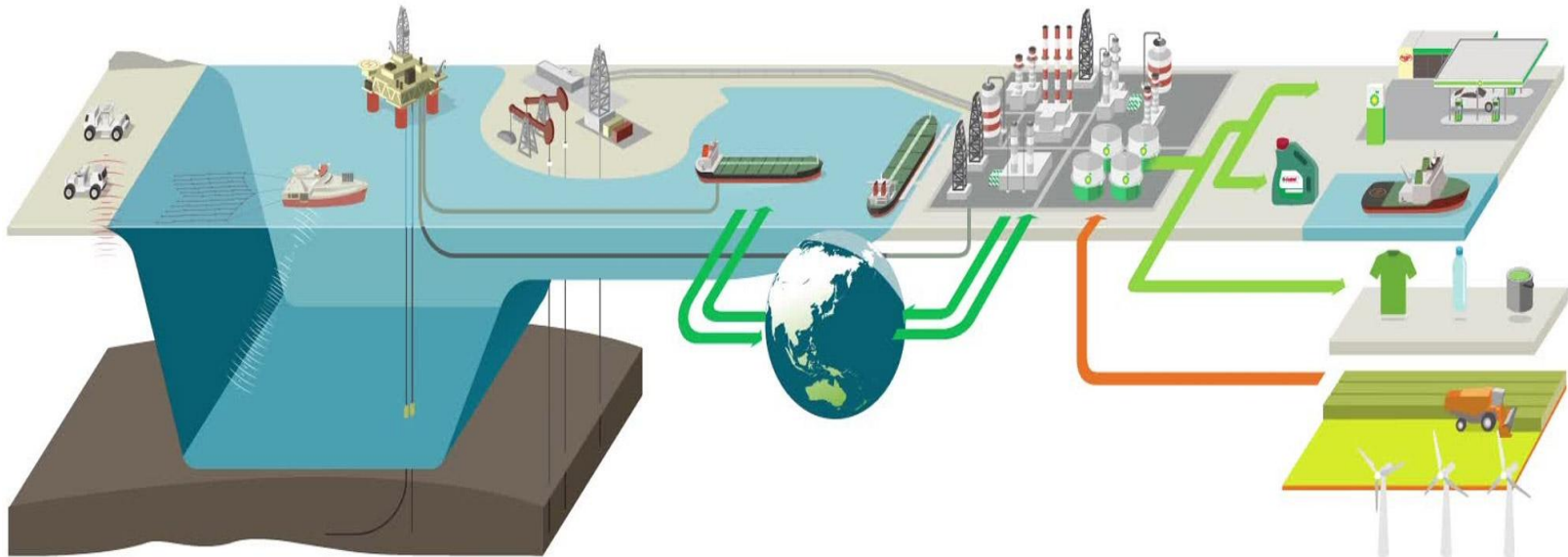
RECAP



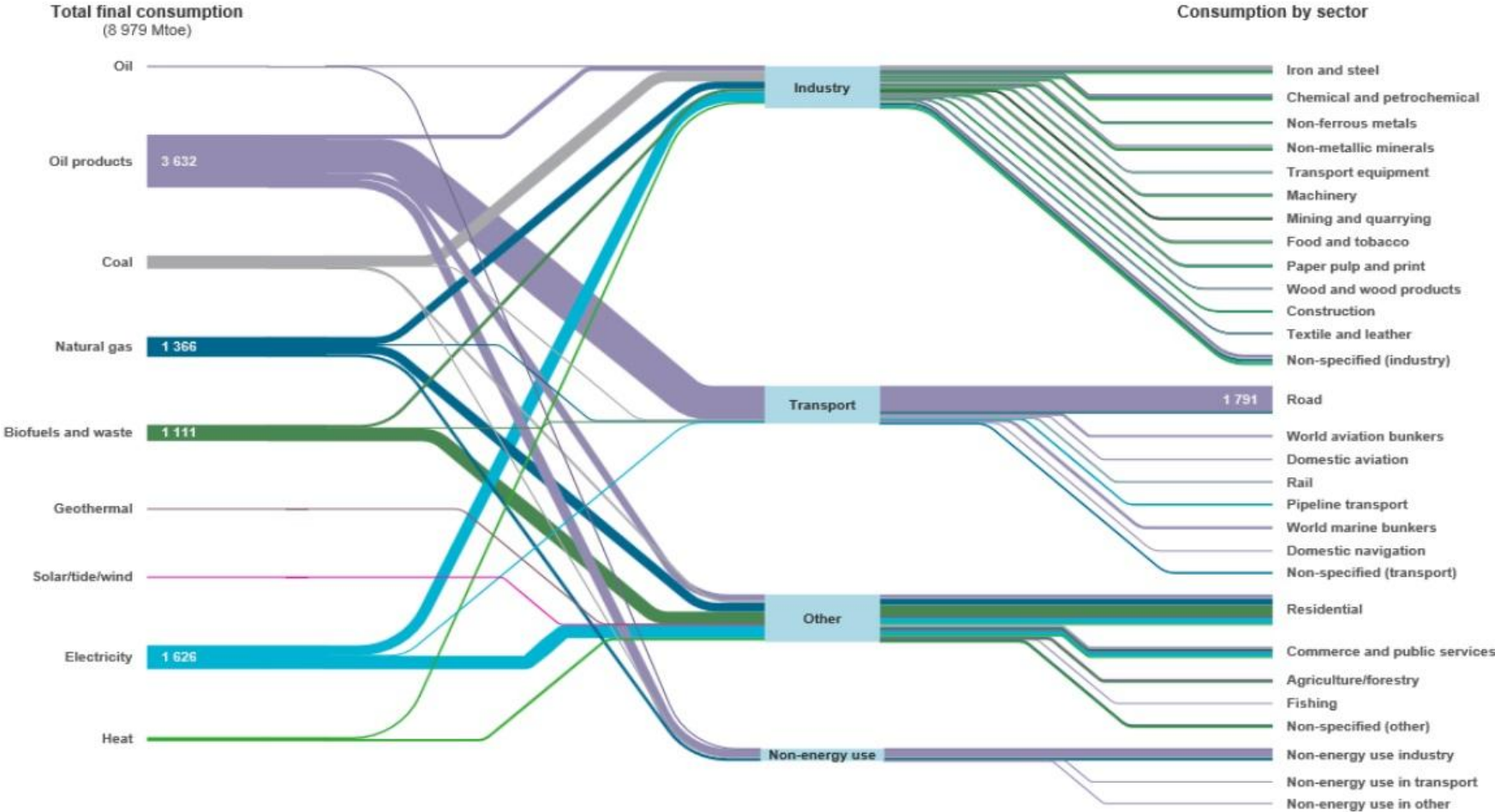
VALUE CHAINS - STAKEHOLDERS



VALUE CHAIN - ARCHETYPE



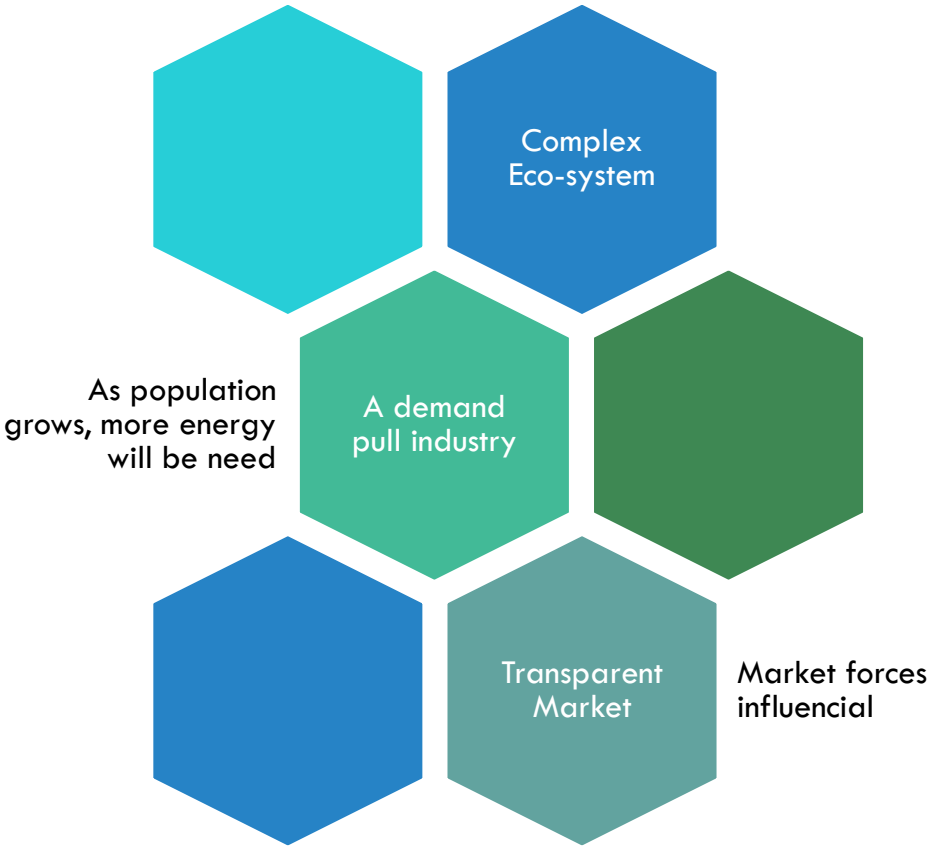
VALUE CHAIN – SECTORS



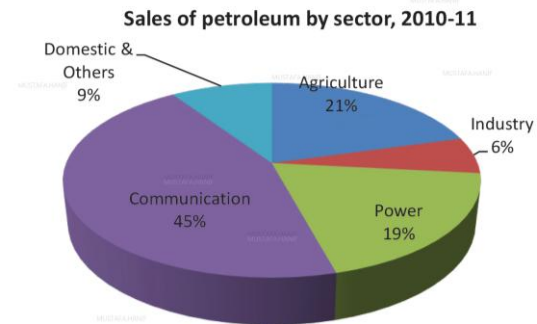
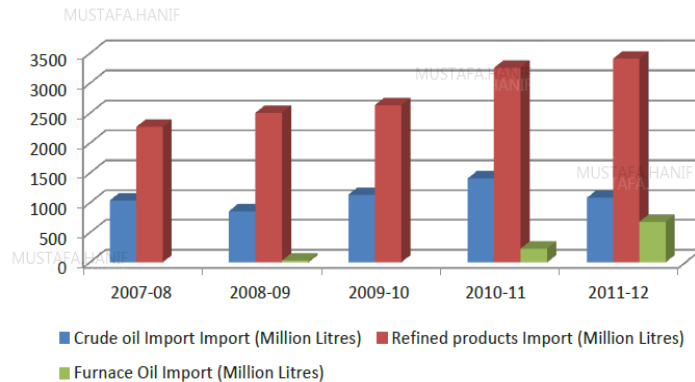
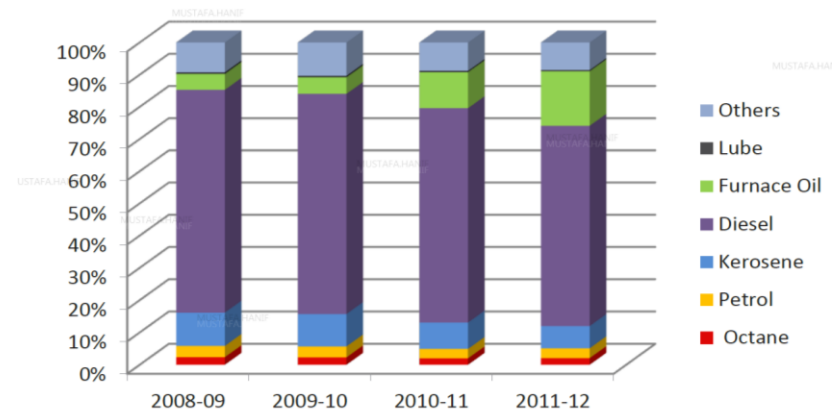
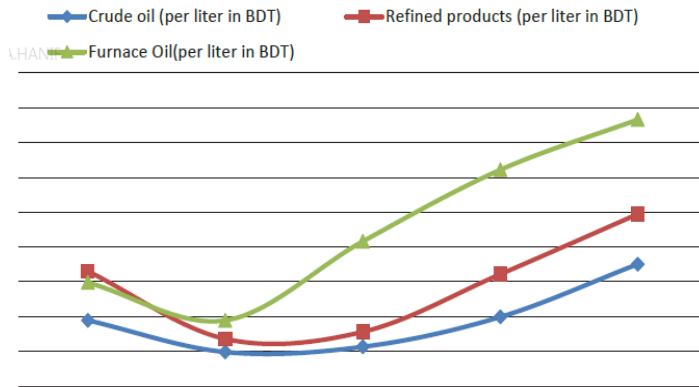
SANGU AND EE-IV



RECAP

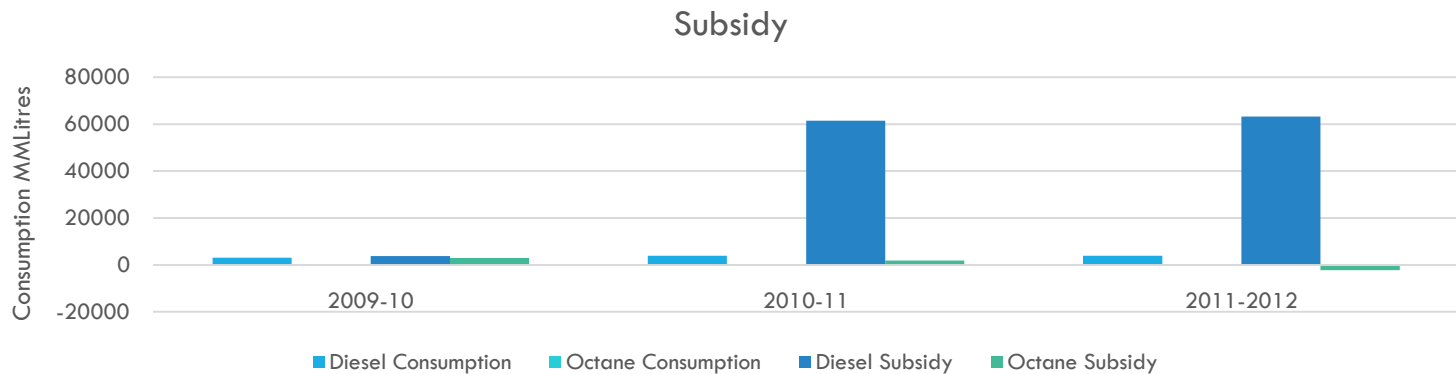
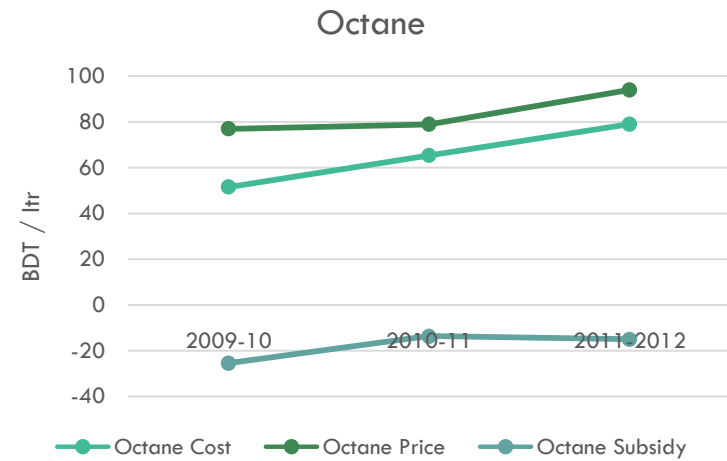
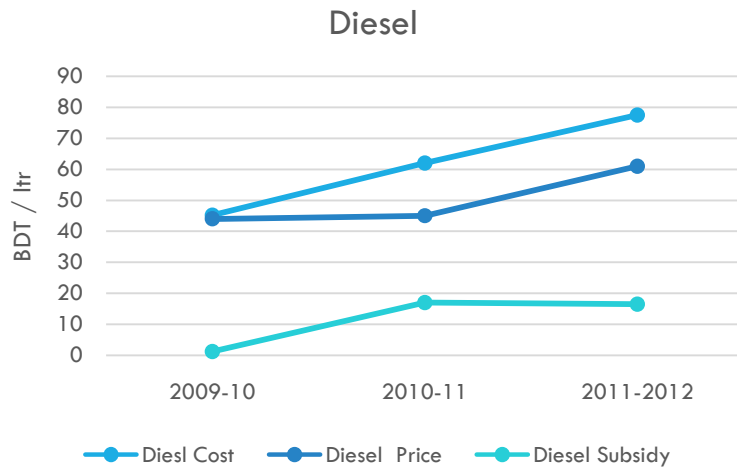


BANGLADESH



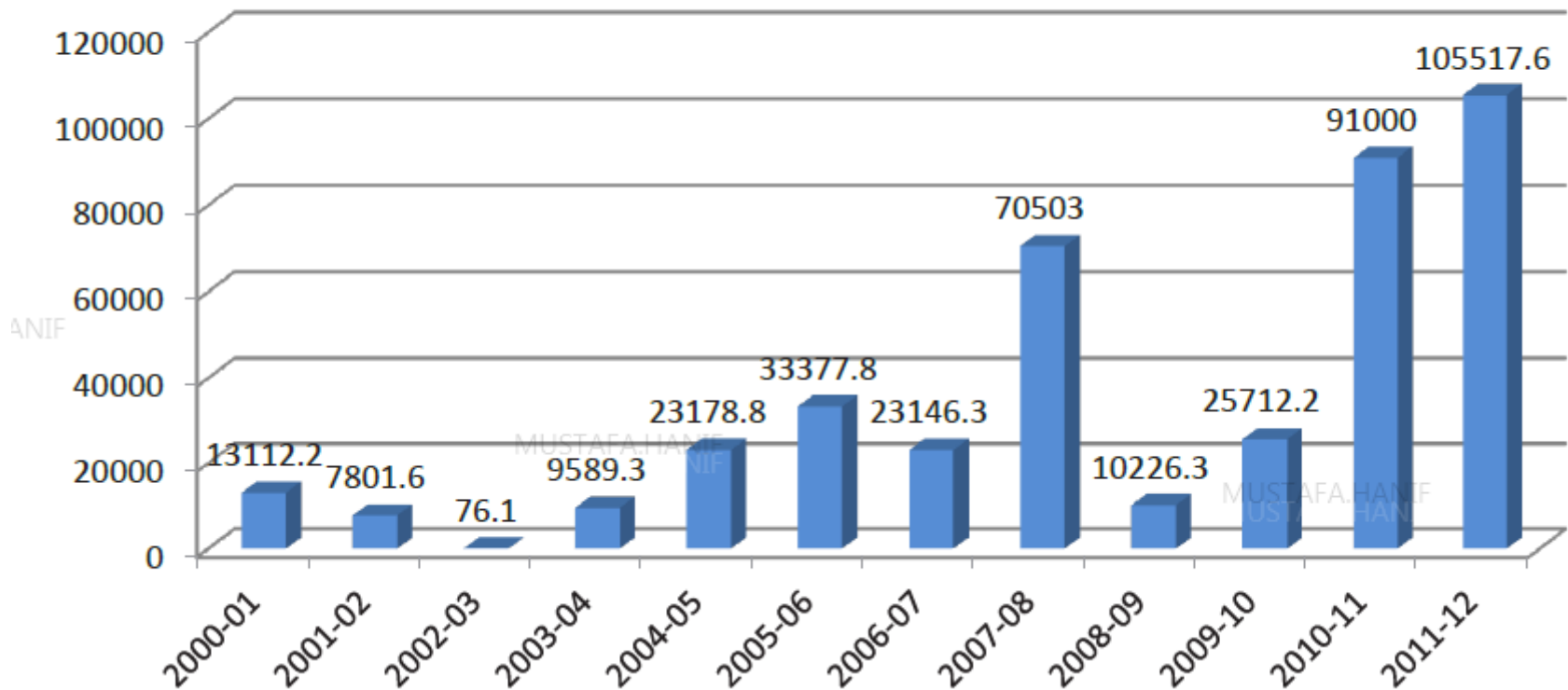
Source: BIDS, Mujeri, Chowdhury, Shahana 2013

BANGLADESH – TRANSPORT SECTOR

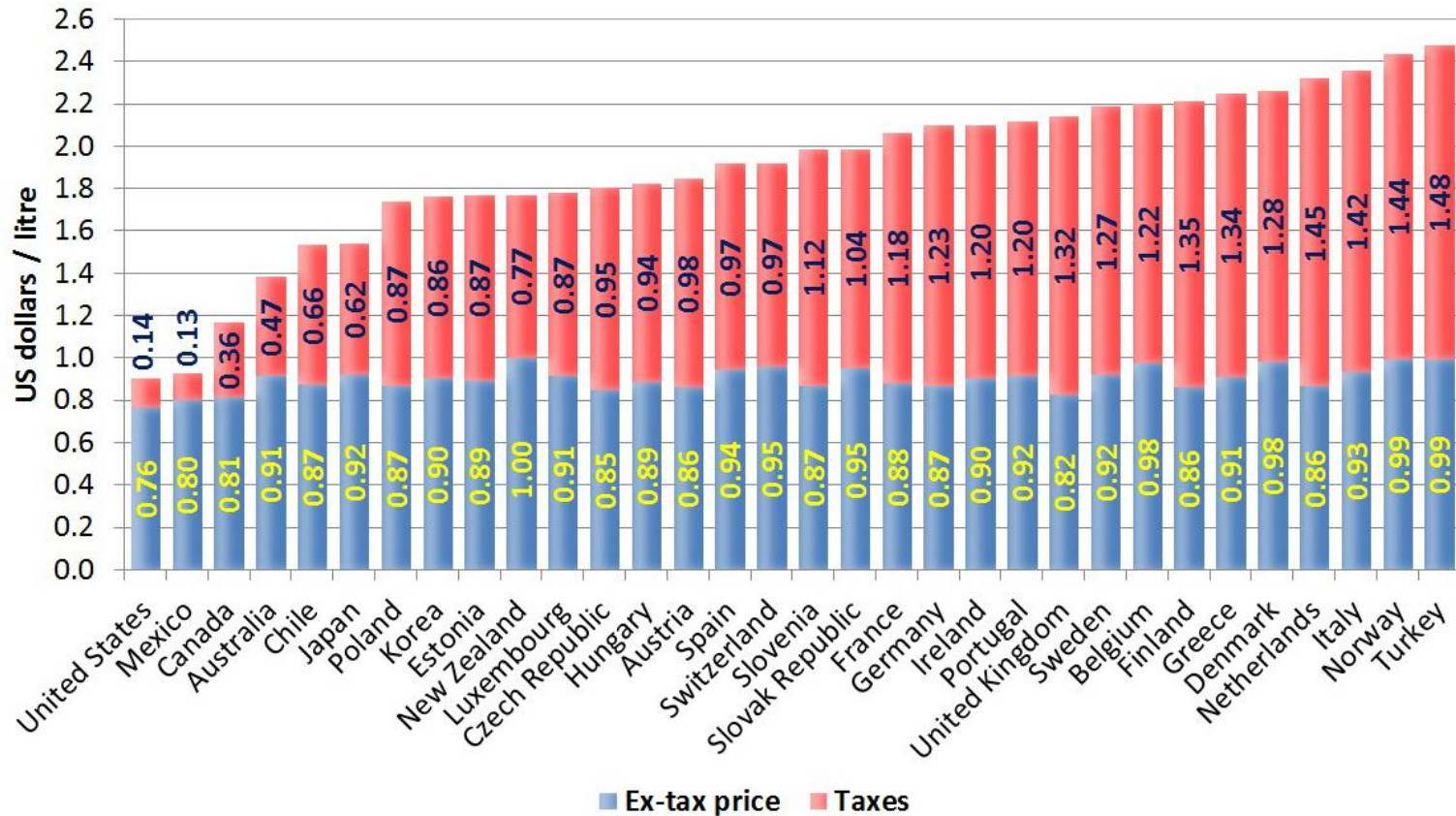


BANGLADESH – TRANSPORT SECTOR

Loss by BPC/Subsidy (Million BDT)



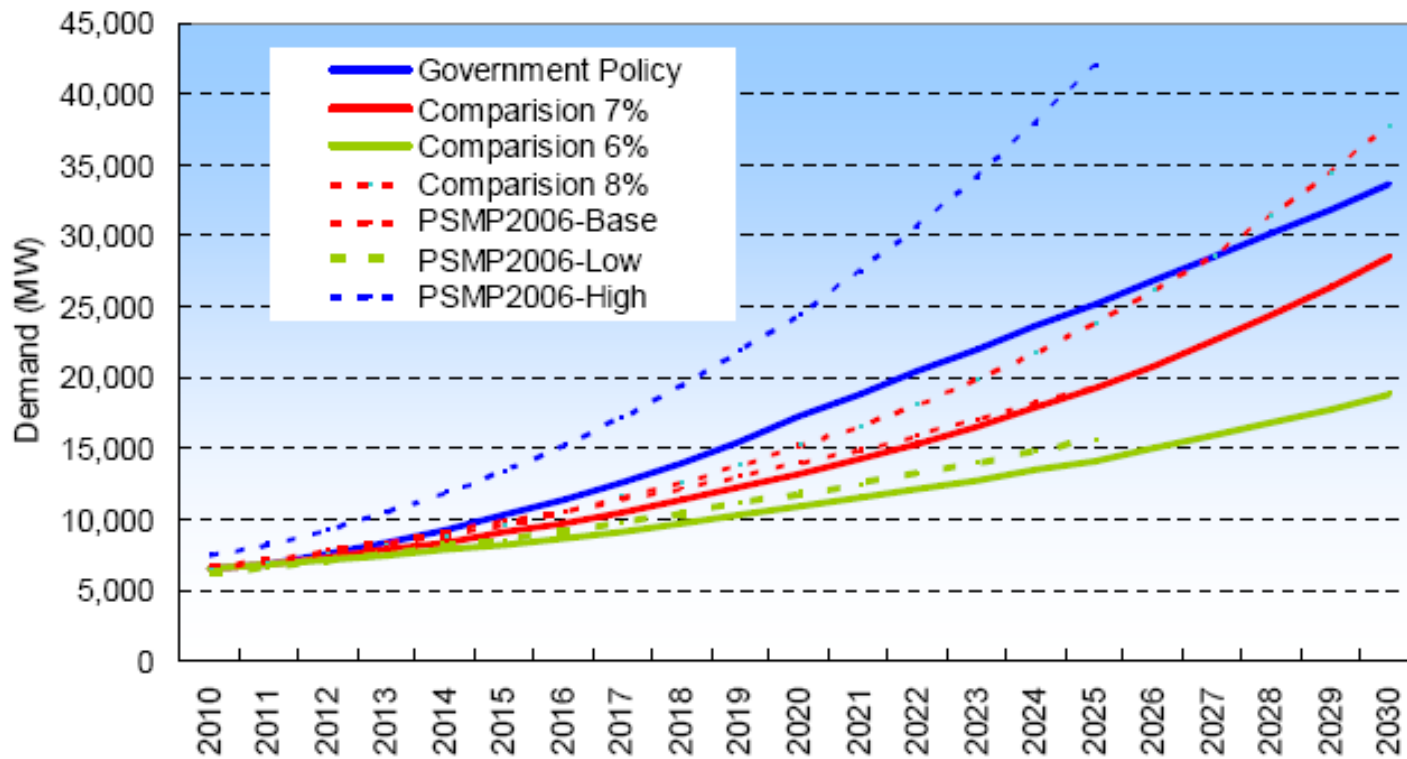
GLOBAL MARKET – PRODUCTS PRICES



Notes: Regular unleaded for Australia, Canada, Japan, Korea, Mexico, New Zealand and the United States; premium unleaded 95 RON for other countries.
 Source: IEA, Energy Prices and Taxes, 2nd Quarter 2014.
 Data cover 3rd Quarter 2013 for Turkey.

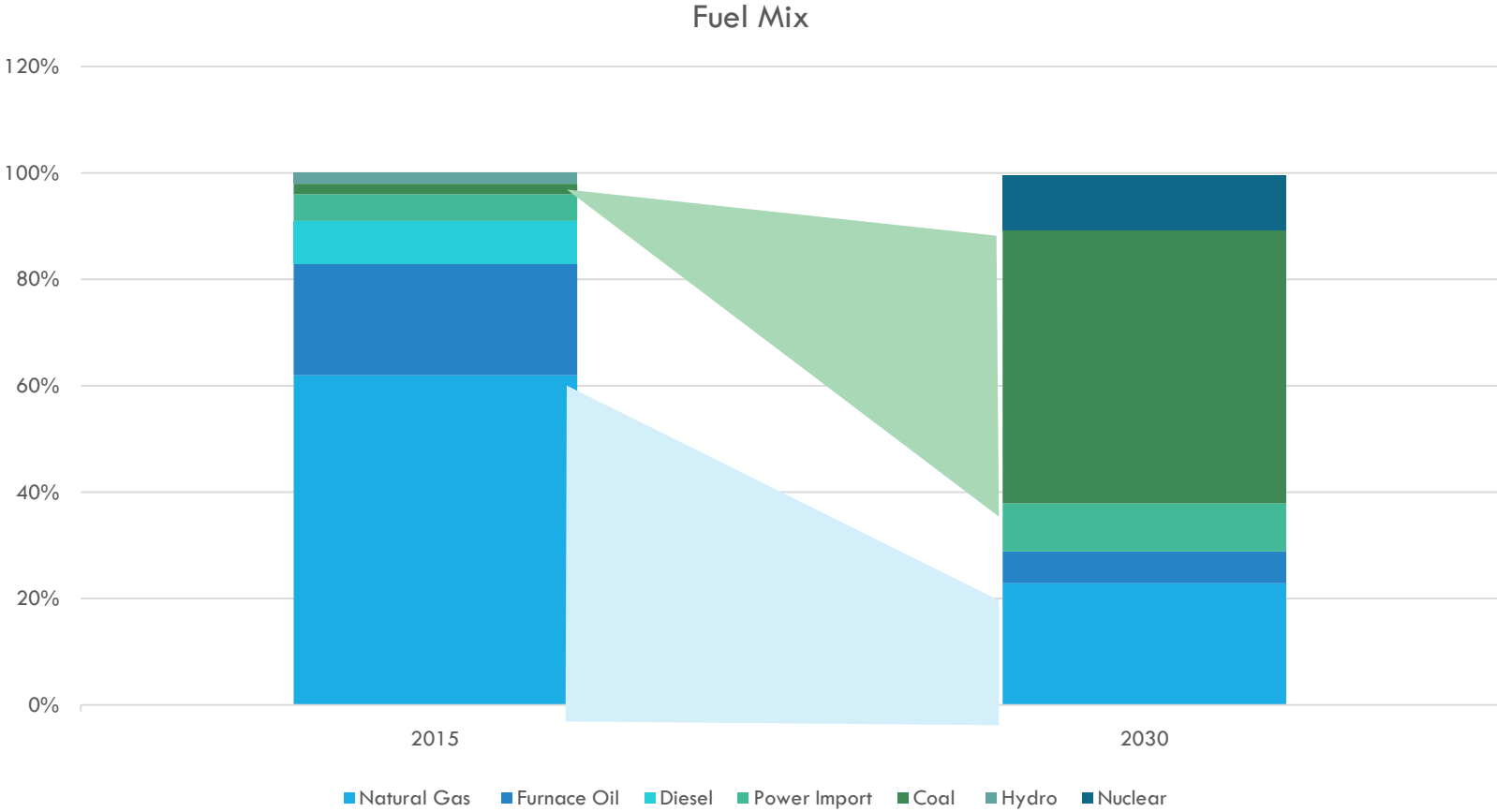
BANGLADESH – POWER DEMAND

Power Demand Forecast 2010-2030

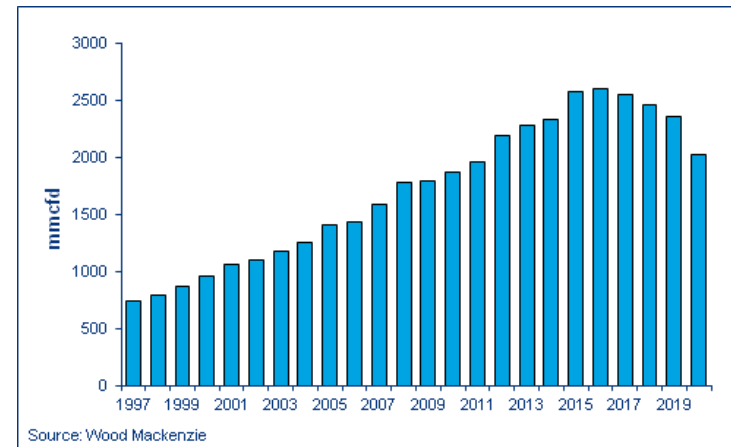
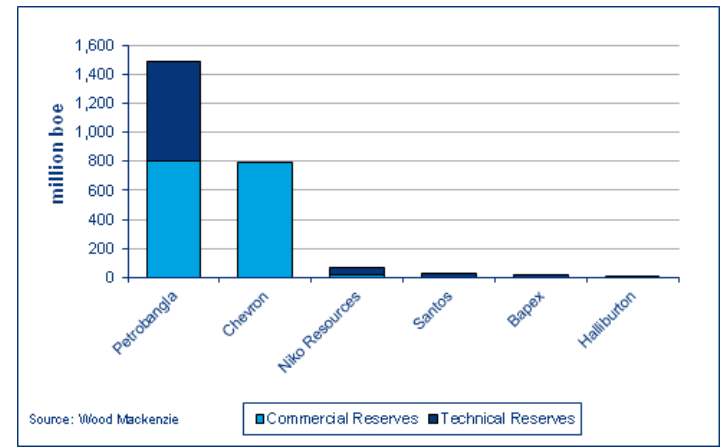


Source: JICA Study Team

BANGLADESH — POWER GENERATION

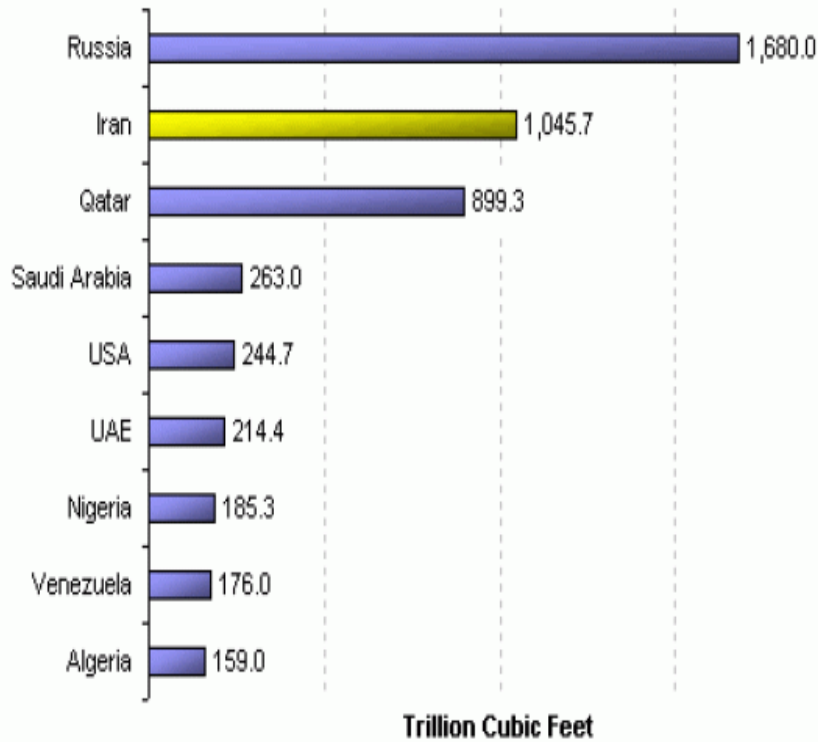


BANGLADESH GAS

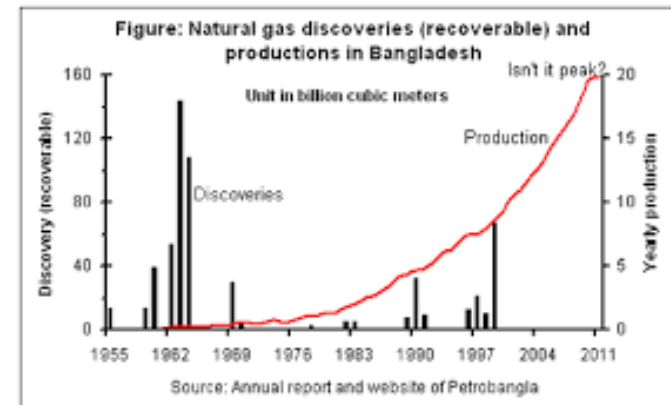


BANGLADESH GAS – COMPARISON

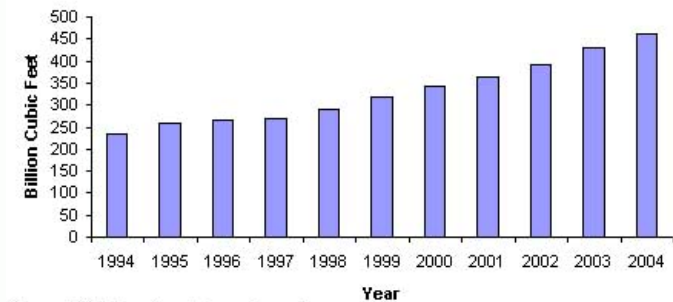
World Natural Gas Reserves by Country, January 1, 2010



Source: Oil & Gas Journal, Jan. 1, 2010

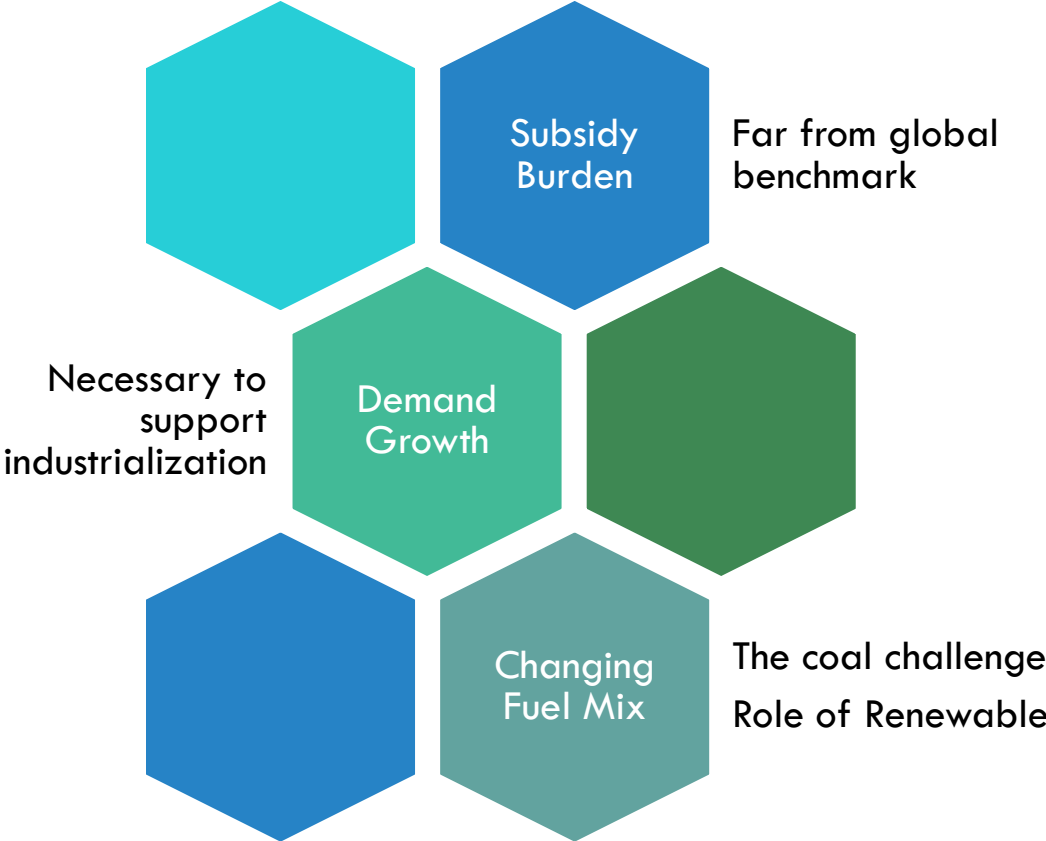


Natural Gas Production in Bangladesh, 1994-2004



Source: EIA International Energy Annual

RECAP



RHAZES



سر الاسرار
The Secret of Secrets



Muhammad ibn Zakariyā Rāzī
Rey – Persia 854 – 932 AD

"The Stone Age came to an end not for a lack of stones and the oil age will end, but not for a lack of oil."



Ahmed Zaki Yamani, Saudi Oil Minister 1962-1986



THANK YOU