



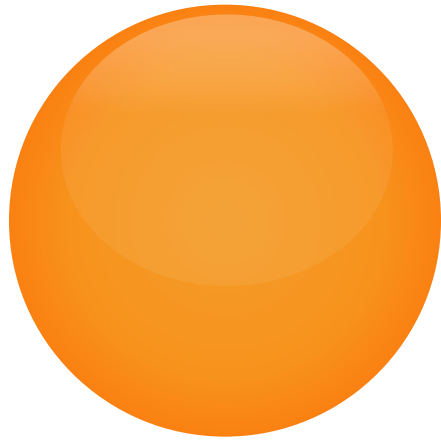
International Seminar on Islam and
Green Technology 2017
IAIS Malaysia



**Promoting Green Growth under Environmental
Law as Measures to Reduce Carbon Emission
and Regulate Air Pollution: Why it Matters for
Malaysia?**



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FOCUS OF PRESENTATION:

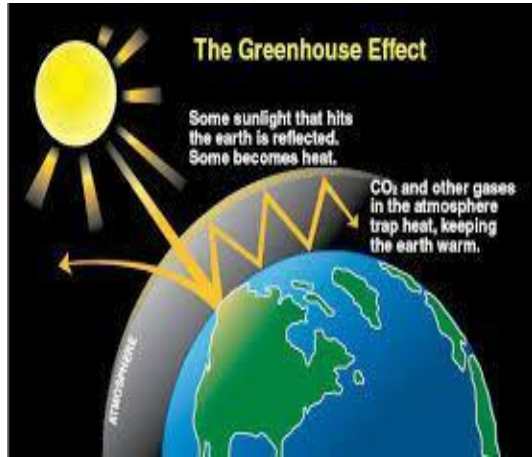
- Link Between Climate Change and Green Technology.
- Policy on Carbon Emission Reduction.
- Malaysia's Initiatives Under Environmental Law.
- Malaysia as a Green Growth Model for Other Muslim Nations.

Why Green Technology?

- Green technology as an outcome product of global warming.
- Businesses must contend with new requirements for managing their GHG emissions.
- Reduction of carbon means:
 - - Clean tech businesses,
 - - Alternative and renewable energy sources,
 - - Green buildings.

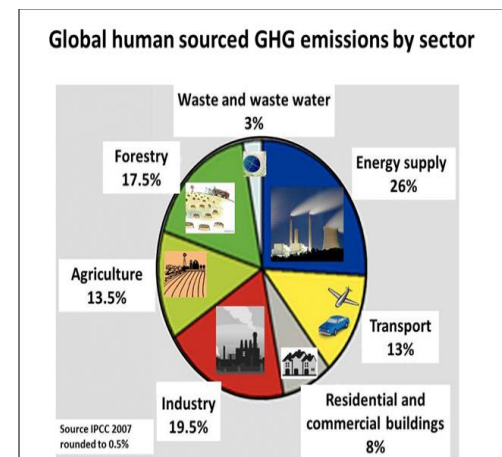


Global Warming due to Human Activities



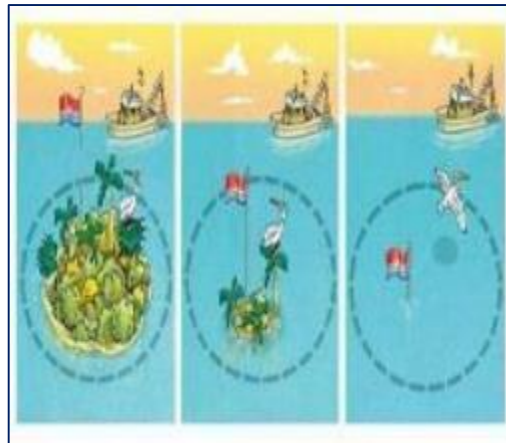
- Greenhouse Effect as a Natural Phenomenon
- GHG trap heat within the atmosphere & keeps the earth warm enough to sustain life.

- Burning of fossil fuels produces massive amounts of carbon dioxide.
- Over 250 years human use of fossil fuels releases GHG causes global warming.
- Since 150 years, human has released 270 billion tons of carbon into the air.



Global Warming & Climate Change

- Global warming refers only to the Earth's rising surface temperature.
- Climate change includes warming **and** the “side effects” of warming.



Overview of Climate Change Conventions

1992

- United Nations Framework Convention on Climate Change UNFCCC

1997

- Kyoto Protocol

2015

- Paris Agreement

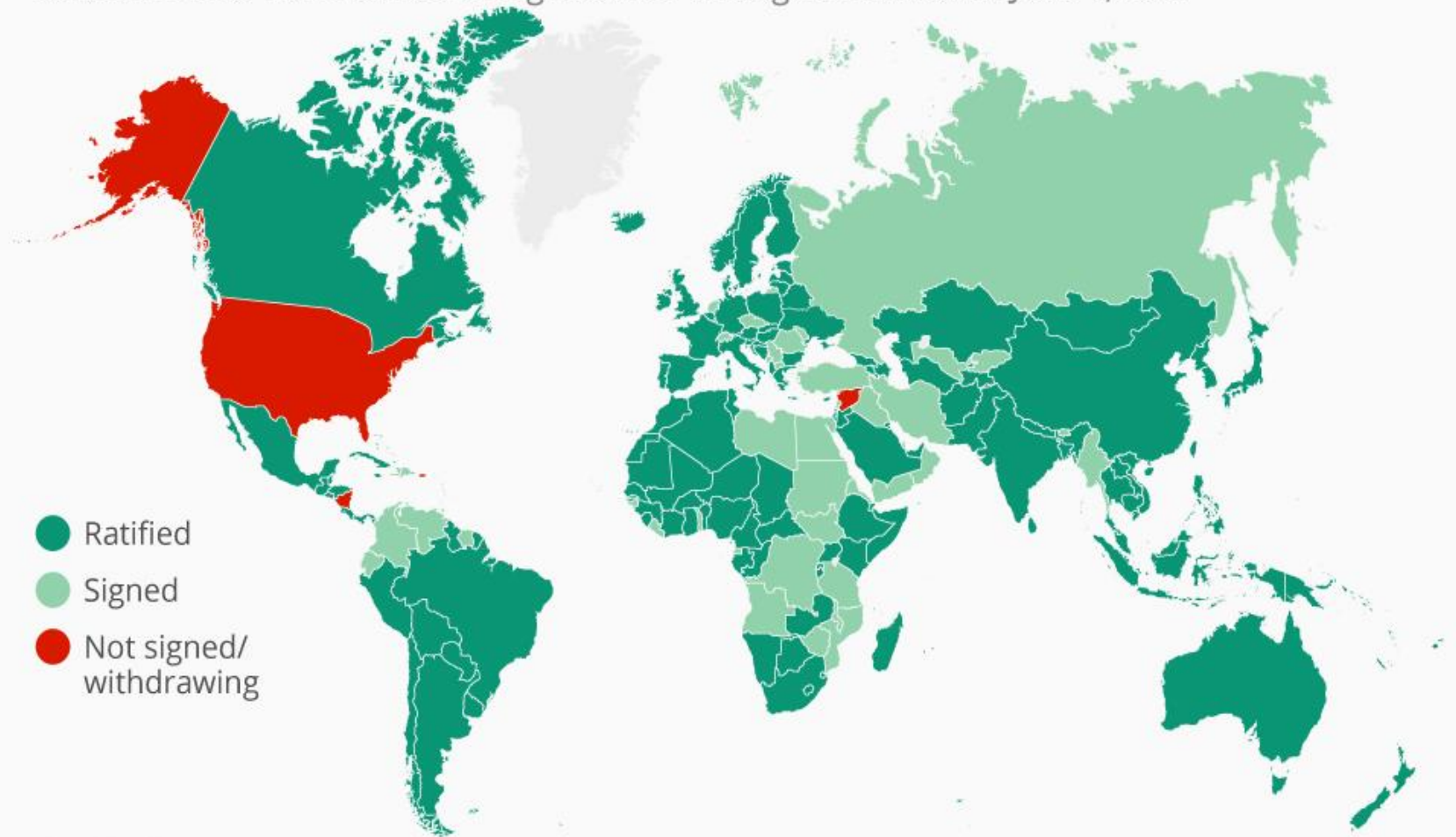
Paris Climate Agreement

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11



The State of the Paris Agreement

Countries that have ratified or signed the Paris agreement as of June 1, 2017



-  Ratified
-  Signed
-  Not signed/
withdrawing



@StatistaCharts Sources: UNFCCC, Business Insider

Objectives of the Paris Agreement

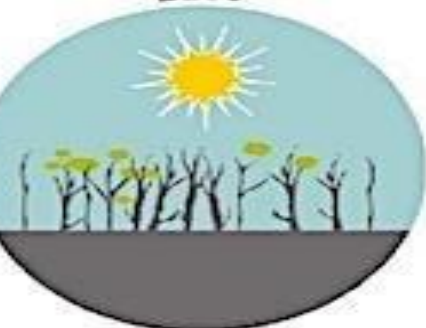
- 195 countries including Malaysia adopted the Paris Agreement.
- Aims:
- Keep global temperature rise **below 2 degrees Celsius**.
- Limit the temperature increase **to 1.5 degrees Celsius**.

- **WHY WE ARE CONCERNED?**
- Global temperature increase up to 2.5 degrees for every 1000 billion tonnes of carbon emitted.
- By 2100, the global average temperature would rise by 1.4 –5.8 °C.
- What happened when temperature rose over 2 °C?

The Paris climate agreement: key points

The historic pact, approved by 195 countries, will take effect from 2020

Temperatures 2100



Keep warming "well below 2 degrees Celsius".
Continue all efforts to limit the rise in temperatures to 1.5 degrees Celsius"

Finance 2020-2025



- Rich countries must provide 100 billion dollars from 2020, as a "floor"
- Amount to be updated by 2025

Differentiation



- Developed countries must continue to "take the lead" in the reduction of greenhouse gases
- Developing nations are encouraged to "enhance their efforts" and move over time to cuts

Emissions objectives 2050



- Aim for greenhouse gases emissions to peak "as soon as possible"
- From 2050: rapid reductions to achieve a balance between emissions from human activity and the amount that can be captured by "sinks"

Burden-sharing



Developed countries must provide financial resources to help developing countries

Other countries are invited to provide support on a voluntary basis

Review mechanism

2023



- A review every five years
First world review: 2023
- Each review will inform countries in "updating and enhancing" their pledges

Climate damage



- Vulnerable countries have won recognition of the need for "averting, minimising and addressing" losses suffered due to climate change

Malaysia's NDC for the Paris Agreement

- ▶ NDC:
- ▶ Malaysia intends to reduce its GHG emissions intensity by 45% by 2030.
 - a) This consist of 35% on an unconditional basis.
 - b) 10% is condition upon receipt of climate finance, technology transfer and capacity building from developed countries.

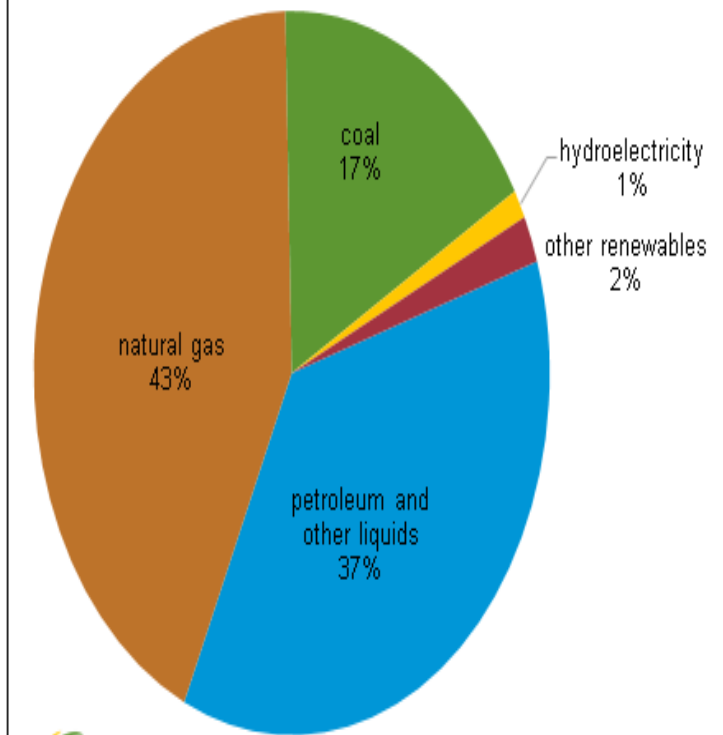
Malaysia: National Circumstances

- **Economy**
- Economic sectors with significant contributions to GDP.
 - Oil, Gas and Energy;
 - Palm Oil & Rubber;
 - Financial Services;
 - Tourism;
 - Business Services;
 - Electronics & Electrical;
 - Wholesale & Retail;
 - Education;
 - Healthcare;
 - Communications Content and Infrastructure;
 - Agriculture.

Malaysia's GHG Emissions by Sector in 2011

- Highest sources of GHG is energy sector, waste, industrial processes and agricultural sectors.
- Within energy sector, largest GHG emissions are from energy industries, transport, manufacturing and construction sectors.

Figure 2. Malaysia primary energy consumption, 2014



Source: International Energy Agency

Malaysia and Green Growth

- Fundamental shift in Malaysia towards a green economy.
- Previous heavy dependency on the petroleum and timber industry need to be changed.

Mitigation & Adaptation

- **Mitigation** is any action to eliminate or reduce the long-term risk of climate change.
- **Mitigation** involves reductions in human emissions of greenhouse gases.
- **Adaptation** refers to the ability of a system to adjust to climate change to moderate potential damage, to take advantage of opportunities, or to cope with the consequences.

Malaysia Mitigation & Adaptation policy

- **Mitigation strategy:**
- Projected outcomes from 11th Malaysian Development Plan .
- a. National Petroleum Policy (1975)
- b. National Energy Policy (1979)
- c. National Depletion Policy (1980)
- d. Four-Fuel Diversification Policy (1981)
- e. National Forestry Policy 1978
- f. National Policy on Biological Diversity (1998)
- g. Five-Fuel Policy (2001)
- h. National Policy on the Environment (2002)
- i. National Strategic Plan for Solid Waste Management (2005)
- j. National Biofuel Policy (2006)
- k. National Energy Policy (2008)
- l. National Green Technology Policy (2009)
- m. National Policy on Climate Change (2009)
- n. New Economic Model, Government Transformation Programme and Economic Transformation Programme (2010)
- o. Renewable Energy Policy and Action Plan (2010)
- p. Second National Physical Plan (2010)
- q. Low Carbon Cities Framework (2011)
- r. National Agro-food Policy (2011)
- s. National Water Resources Policy (2012)
- t. National Automotive Policy (2014)

Legal Provisions on Carbon Reduction under the Environmental Quality Act

- Regulations on motor vehicle emission.
- Regulations on Palm-Oil and rubber processing factories.
- Self-regulation of businesses relating to air pollution emission.
- Environmental Impact Assessment.
- Environmental Audit.
- Environmental liability of company director.

Feed-In Tariff

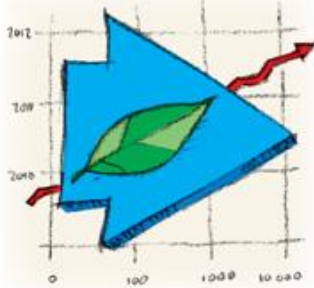
- Renewable Energy Act 2011.
- The promotion of renewable energy (RE).
- FiT mechanism is defined as the mechanism that allows electricity produced from indigenous RE resources to be sold to power utilities at a fixed premium price and for specific duration.
- Why Feed-In Tariff?

Green Technology and Low Carbon Cities

- Cities and urban buildings responsible for 2/3 of the world's energy use – for heating and cooling of buildings, for cooking, as well as for transport and industrial production.
- Cities account 67% of global energy demand.
- Urbanization growth rate in Malaysia:
 - 27% in 1960
 - 42% in 1990
 - 54% in 1994
 - 61.8% in 2000
 - 75% by 2020



Twelve steps to greener cities



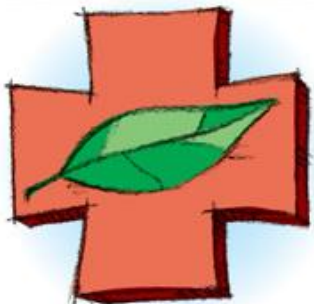
1 Develop policies, procurement procedures and planning regulations encouraging a move to a green economy



5 Create partnerships with provincial and national government, business and parastatals to cut emissions in the transport sector



9 Promote low carbon consumption by education and provision of greener services



2 Convince residents and business of the need for a low-carbon lifestyle and its benefits



6 Develop an integrated public transport strategy and system while at the same time reducing the need for people to travel too much by improving access to jobs and homes



10 Create a climate change innovation hub across sectors of society and mobilise resources for climate change research



3 Change the way land is used and development is planned to combat urban sprawl and make the city more compact



7 Create a coordinating structure in the city to link all programmes around climate change mitigation and adaptation reporting directly to the city's top brass



11 Promote climate change activities and recruit leaders in the private and public sectors with the vision to drive them



4 Reduce industrial emissions by major polluters through policy development, regulation and enforcement, while encouraging low carbon industries through tax breaks and public investment



8 Create a comprehensive register of the city's significant range of low carbon initiatives and popularise them, making them part of its planning, policies and procedures



12 Improve energy efficiency in council buildings and land use while promoting similar approaches in the private sector

Green Technology and Low Carbon Cities: Options for Action

- Mandatory building codes for new buildings that include energy efficiency measures
- Mandatory retrofitting of existing buildings to increase energy efficiency
- Green building certification that emphasizes energy efficiency
- Energy efficiency standards and labeling for household appliances
- On-site renewable energy generation, e.g. solar panels and rooftop PVs
- Rebates and tax credits to encourage individual measures above
- Landfill gas to energy
- Purchase of electricity generated from renewable sources

- Greater density of rail transit
- Bus rapid transit
- Fuel economy standards for new vehicles sold
- Phase-out of fuel subsidies and introduction of fuel taxes
- Additional incentives for hybrid / electric vehicles
- Road pricing / congestion charging

Carbon reduction & Green Technology through Corporate Environmental Responsibility (CSR)

- Increased economic development & energy use can lead to increase emissions of GHG and other environmental issues.
- A shift towards green markets.
- Green manufacturing to re-evaluate potential risks associated with environmental and climate change issues.



CSR

- The emergence of CSR in Islamic corporations
- CSR is commendable in Islam.
- CSR from the Islamic perspective.
- Companies with good CSR record enjoy high reputation and are able to attract investors.

CSR

- Global pressure financial institutions.
- CSR as a platform & mechanism for Islamic corporations to fulfil their social responsibilities as part of their religious obligations.
- Bursa Malaysia launched a CSR framework covering four key dimensions of CSR relating to workplace, community, marketplace and the environment.
- CSR on IFIs.

CSR ENVIRONMENTAL DIMENSION

- Key Areas:
- Conservation of Environment
- Protection of Endangered Wildlife
- Mitigation of Environmental Pollution
- Environmental Education
- Environmental Products/Process
- Environmental Audit/ Independent Verification Statement
- Environmental Management System(EMS)/Policy



Thank You for Listening

from

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