RESEARCH AND INNOVATION - GREEN TECHNOLOGY POLICY

MINISTRY OF ENERGY, GREEN TECHNOLOGY & WATER

27 NOVEMBER 2012

KeTTHA
KEMENTERIAN TENAGA, TEKNOLOGI HIJAU DAN AIR


LOW ENERGY OFFICE
(LEO), MEGTW,
PUTRAJAYA

PRESENTATION OUTLINE

- Introduction
- The National GreenTech Policy
- Research and Innovation thrust
- Conclusion

"To reduce carbon emission up to 40% in terms of emission intensity of GDP (Gross Domestic Product) by 2020 compared with its 2005 levels"

COP15
COPENHAGEN
UN CLIMATE CHANGE CONFERENCE 2009

Malaysia's ranking in innovation activities

	Rank		Score	MEAN score
	Global	South-East Asia		
Capacity for innovation	19	2	4.3	3.2
Quality of scientific research institutions	24	2	4.9	3.7
Company spending on R&D	13	2	4.7	3.2
University-industry of advanced tech. products	4	2	4.9	3.6
Availability of scientists and engineers	22	2	4.9	4.1
Utility patents per million population	32	2	7.2	-

Source: Global Competitive Report, 2011-2012

Malaysia's STI Performance Scorecard

Category	Indicator	Year 2006	Year 2008	Average/Selected OECD*
R&D Investments and expenditure	Overall R&D Intensity	0.64	0.82	2.26
	Industry R&D expenditure as % of GERD	85	70.5	63.9

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Selected STI data for selected ASEAN countries

Country	Indonesia	Malaysia	P'pines	S'pore	T'land	V'nam
Population	236.95	29.00 mil	93.74 mil	5.18 mil	67.58 mil	87.28 mil
GDP (PPP) per capita ($)	4,661	15,168	4,096	59,520	8,757	930
Researchers in R&D per million people	90 (2009)	*1,135 (2008)	78 (2007)	5,834 (2008)	316 (2007)	NA
GERD as % of GDP	0.03	*0.82 (2008)	0.10	2.09	0.24	0.19 (2002)
% GERD by business sector	0.04	0.56	0.05	1.27	0.09	14.5 (2002)

NATIONAL GREEN TECH POLICY

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KEMENTERIAN TENAGA, TEKNOLOGI HIJAU DAN AIR

NATIONAL GREEN TECHNOLOGY POLICY

(introduced in July 2009)

Policy Statement

Green Technology shall be a driver to accelerate the national economy and promote sustainable development

TOWARDS A LOW CARBON ECONOMY

(i.e. usage of Green Technology as a solution towards the issue of Global Warming)

Low Carbon Economy can be best understood as the range of activities which are materially supported by the need to reduce the release of GHG into the atmosphere

Source : UN, Global Compact

Green Technology refers to products, equipment or systems which satisfy the following **criteria**:

- It minimises the degradation of the environment;
- It has a zero or low green house gas (GHG) emission;
- it is safe for use and promotes healthy and improved environment for all forms of life;
- it conserves the use of energy and natural resources; and
- it promotes the use of renewable resources.

THE 5 OBJECTIVES OF NATIONAL GREEN TECHNOLOGY POLICY

- To minimise growth of energy consumption while enhancing economic growth;
- To facilitate the growth of the green technology industry and enhance its contribution to the national economy;
- To increase national capability and capacity for innovation in green technology development and enhance Malaysia's competitiveness in green technology in the global arena;
- To ensure sustainable development and conserve the environment for future generations; and
- To enhance public education and awareness on green technology and encourage its widespread use.

THE 5 STRATEGIC THRUSTS

1. Strengthen the Institutional Frameworks
2. Provide a Conducive Environment for Green Technology Development
3. Intensify Human Capital Development in Green Technology
4. Intensify Green Technology Research and Innovations
5. Promotion and Public Awareness

Research and Innovation thrust

Promoting more RDIC efforts

KeTTHA plans to enhance Research, Development Innovation and Commercialisation (RDIC) through:

- ❖ financial grants or assistance
- ❖ establishment of an effective coordinating agency for RDI and center of excellence or new research institute for GT development

- ❖ smart partnership between the government, industries and research institutions and

- ❖ strong linkages between local research institutions and international centers of excellence in GT RDI.

Expected Deliverables

Based on current Terms of Reference

Task 1 **GREEN TECHNOLOGY FORESIGHT**	❑ Comprehensive Analysis ❑ Framework of Green Technology Master Plan ❑ Projection on the trends of GT market growth domestically until 2030 against global benchmarks ❑ Prioritization list of existing and emerging Green Technologies and focused industries ❑ Propose practical measures to strengthen and increase the number of GT businesses locally and globally
Task 2 **TECHNO-ECONOMIC MODELLING AND ANALYSIS**	❑ Data consolidation and reporting on modeling analysis ❑ Cost benefit analysis of green technology investment and its impacts to the national economy ❑ Effective financial mechanism and incentives ❑ Carbon Emissions Reduction Potential by Technologies
Task 3 **DETAIL ACTION PLAN**	❑ Comprehensive Green Technology Master Plan incorporating input from Deliverables of Task 1 and 2

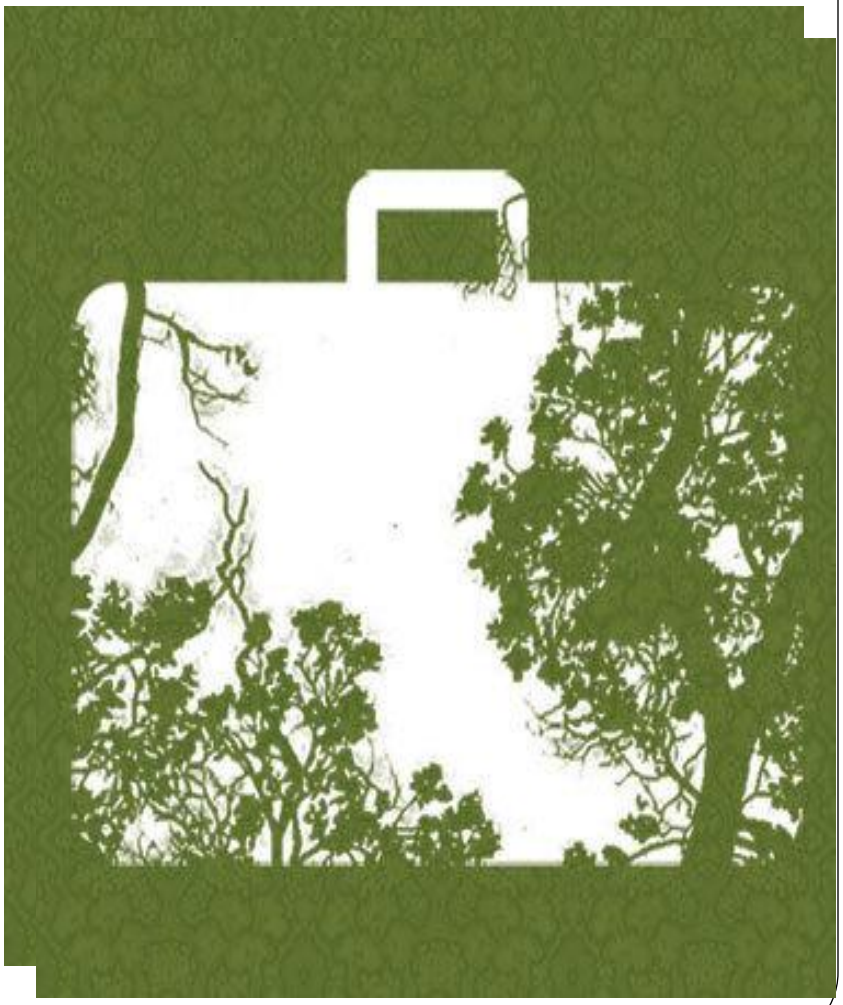
GREEN TECHNOLOGY FINANCING SCHEME (GTFS)

- RM3.5 billion soft loan
- Up to RM50.0 million for producers and RM10.0 million for users of green technology
- 2% interest subsidy by the government
- 60% government guarantee
- Approx RM 1.016 billion has been disbursed
- So far 76 companies have benefited
- Effective until 31 December 2015

Coming up with feasible fiscal and financial GT development incentives

The Government has kick started some basic and promotional fiscal and financial incentives to spur GT development.

KeTTHA is in the midst of conducting 2 major studies to assess and identify the scope of fiscal incentives and financial assistance to scale up the development of the GT industry.



Crafting a comprehensive, viable and do able GT roadmap

- The Government is working on the Green Technology Roadmap to guide Malaysia towards a low carbon economy.
- Focus on Energy, Waste Water, Building, Transportation, Manufacturing and ICT

- The benchmark for gauging the successful implementation of the GT agenda.

- Assesment for output and outcome plus impact evaluation of the GT agenda.

Example EPP 10 : Green Technology Park

Overview

a special zone for green companies where all economic activities will have eco elements

Rationale

- convenient for foreign companies to acquire land and develop a specific area for companies having a similar eco systems
- share human capital development
- access to specialized services and suppliers
- specific economic zones dedicated to KeTTHA
- nodal points to attract FDI and using either existing economic corridors or in new allocated zones.
- develop generic economic zones or specialized zones

Target outcomes / KPIs

Green technology Research and Business Platform
Establishment of Green Technology Incubation Centre

Green Economic zone

Investment required

Public Investments:
No additional investment required as this will be a private sector project with public sector assistance and input.
Private investments

Owner(s)

KeTTHA
GreenTech Malaysia

Increasing GT Corporate Social Responsibility

CSR is at a very low hanging fruit level eg solid waste separation at source initiative, fund contribution to green promotions and light green publicity campaigns.

The business community need to contribute more substantively especially the local business community as international corporations are mostly green savvy being rooted in the green CSR back in their country of origin.

KeTTHA will assist in this endeavour by way of facilitation and enabling.

CONCLUSION

- **Green Tech is the catalyst to quicken the mitigation of CO2 emission.**
- **Low carbon economy is the driver of economic growth.**
- **The Malaysian Government is actively putting in place the supply and demand sides of the ecosystem.**
- **Research and Innovation is the main stay in promoting GT . It will be actively promoted.**

THANK YOU