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14th INTERNATIONAL
SURVEYORS' CONGRESS

2012 Commonwealth
Association of Surveying &
Land Economy (CASLE)
Regional Conference


Plenary Session 2
Transforming the Nation: Sustainability

Sustainable Economy

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Outline

I

Sustainable economy: *What is it?*

II

Green growth: *What is the potential?*

III

Sustainability of the Malaysian economy:
Where are we?

IV

Concluding remarks: *The way forward*

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I. Sustainable economy: *What is it?*

Meaning and definitions



Sustainability means many different things to different people.

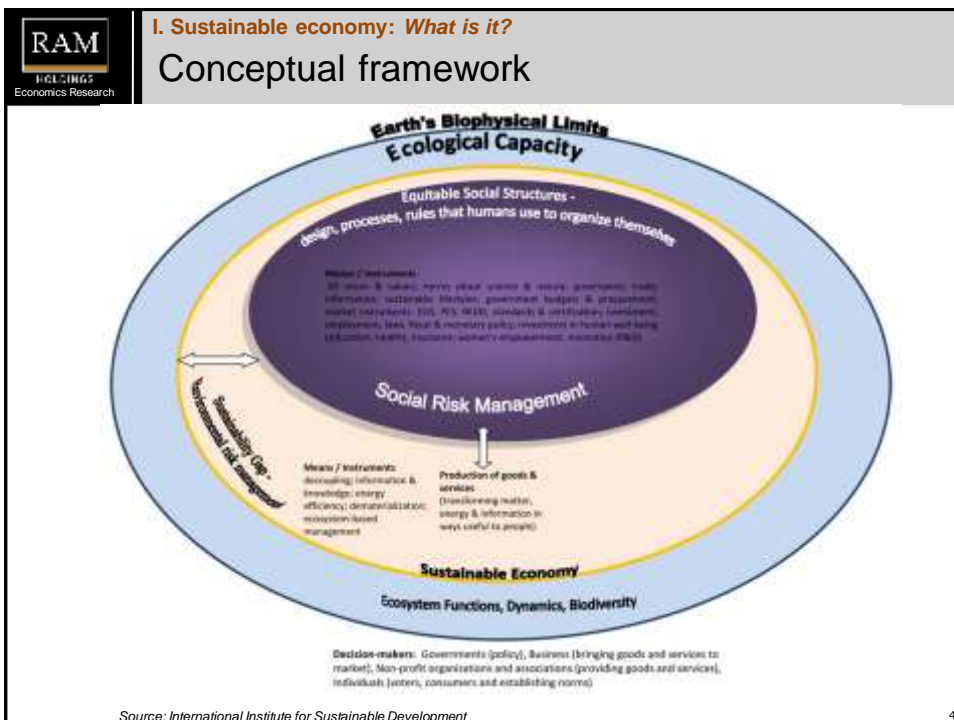


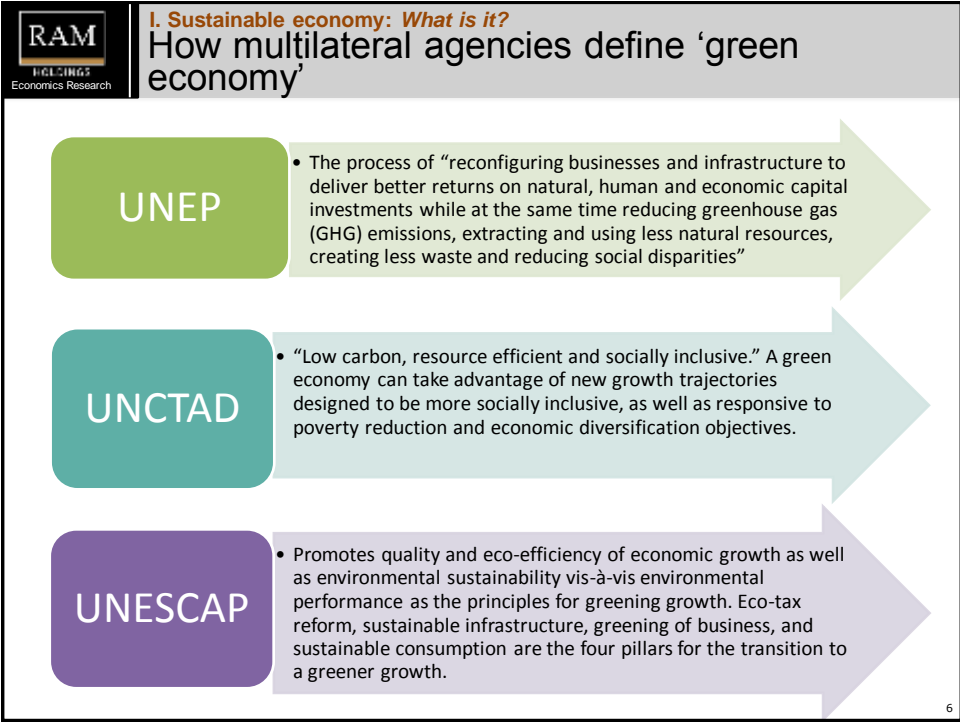
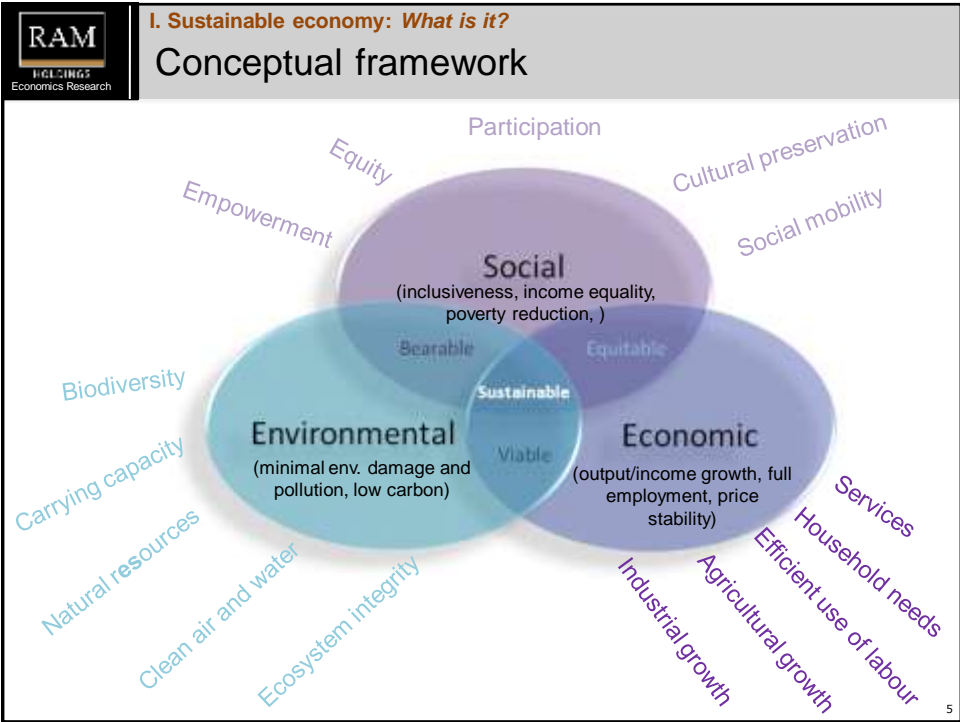
“Meets the needs of the present without compromising the ability of future generations to meet their own needs”.



Sustainable economy encompasses the idea of environmental, economic and social progress and equity, all within the limits of the country's natural resources.

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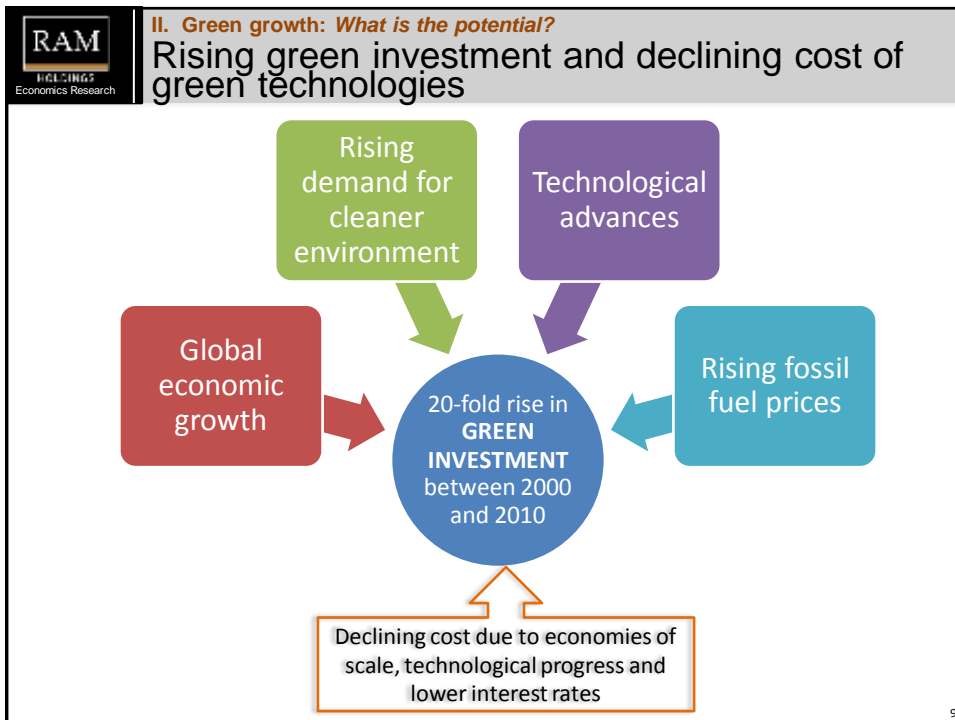


RAM ECONOMICS Economics Research	Outline
I	Sustainable economy: <i>What is it?</i>
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RAM ECONOMICS Economics Research	II. Green growth: <i>What is the potential?</i> Green growth and investment opportunities
Creation of new markets	<ul style="list-style-type: none"> Global market for low-carbon products is estimated to worth over USD5 trillion or 8% of world GDP.
Employment generation	<ul style="list-style-type: none"> Over 96% of 18-45 year olds want their employer and workplace to be environmentally friendly or at least environmentally aware.
Value of green reputation	<ul style="list-style-type: none"> Financial analysts rate companies with a visible reputation for environmental responsibility higher than others.
Green investment potential	<ul style="list-style-type: none"> Businesses can cut their energy bills by up to 20% with only a small investment.

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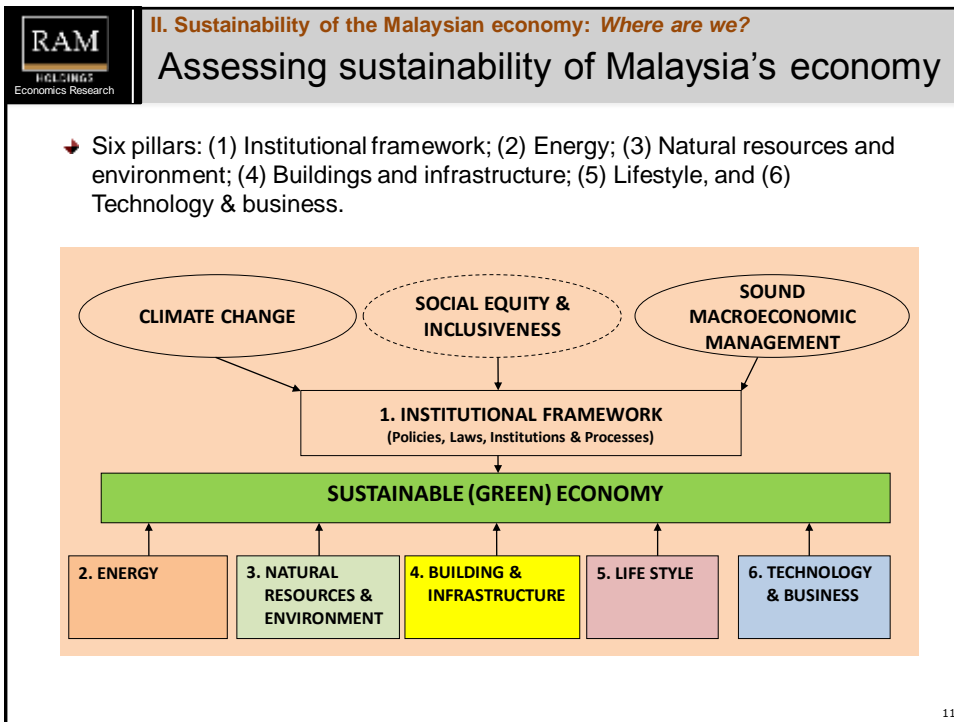


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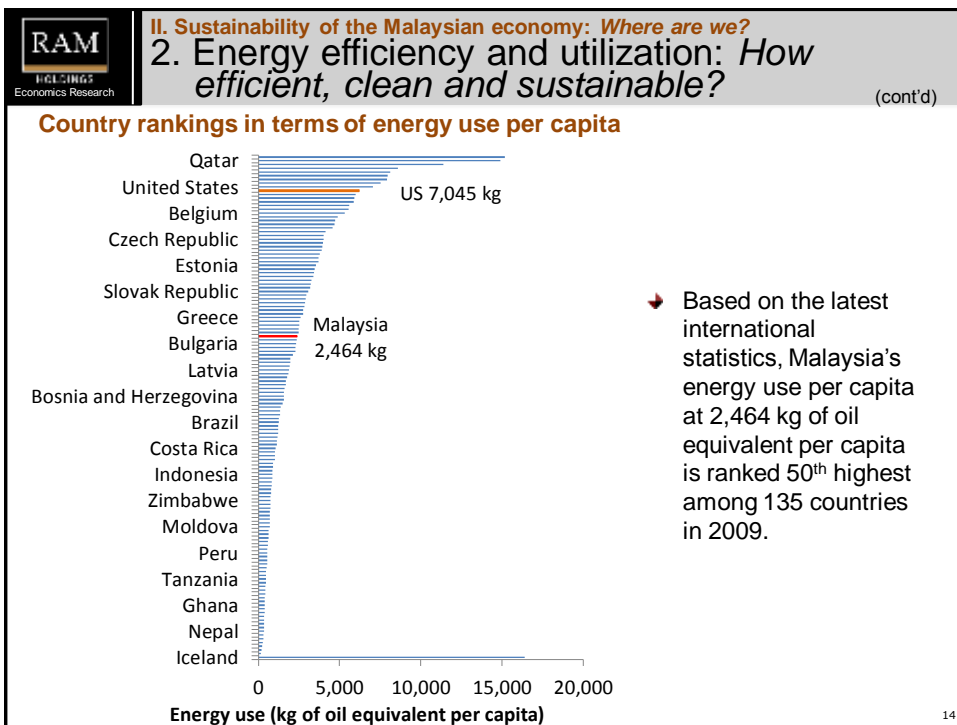
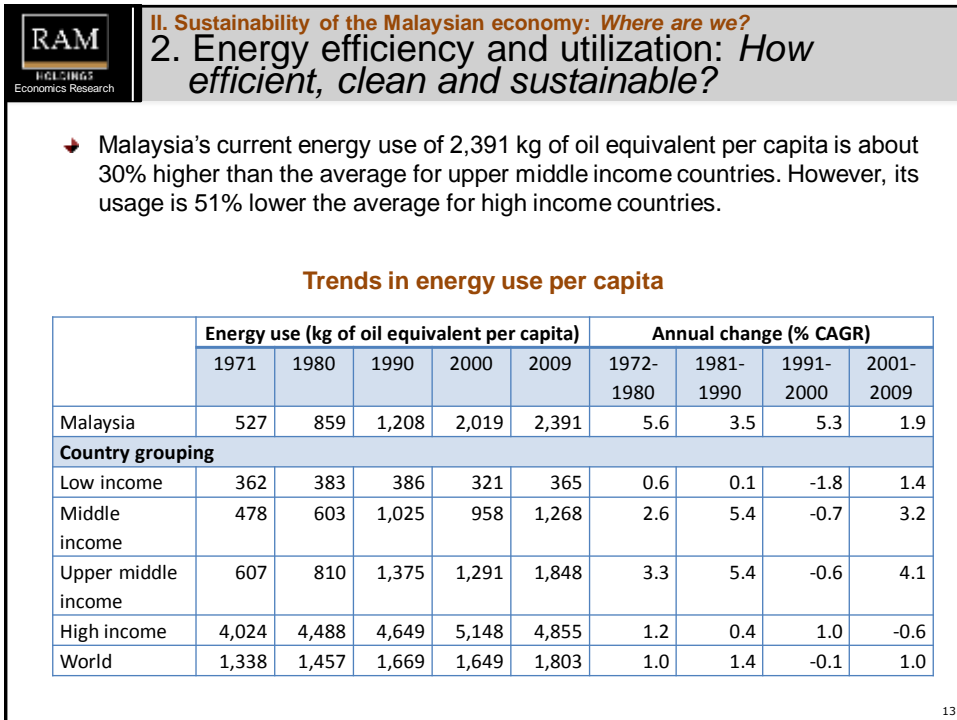
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II. Sustainability of the Malaysian economy: Where are we?

1. Institutional capacity – policies & implementation capacity

Phase	Policy content	Policy instruments
Stage 5. 2009-present	<ul style="list-style-type: none"> Green economy Energy-efficient and green technology Renewable energy 	<ul style="list-style-type: none"> Introduction of a ministerial portfolio in the Federal administration (incorporation of the green technology portfolio into a newly established Ministry of Energy, Green Technology and Water, replacing Ministry of Energy, Water, and Communications); Formulation of a national policy statement on green technology (National Green Technology Policy) Establishment of an implementing agency for green technology (Malaysian Green Technology Corporation which was restructured from Malaysia Energy Centre) Formation of an inter-ministerial council as a decision-making body on green technology Registration of a green building association called Malaysia Green Building Confederation (MGBC) Initiation of a green financing scheme – a soft loan incentive called the Green Technology Financing Scheme Launching of green townships framework Introduction of green procurement in all government agencies Formulation of legislation to promote renewable energy (Renewable Energy Act 2011 - Act 725) and establishment of implementing agency called Sustainable Energy Development Authority (SEDA)

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II. Sustainability of the Malaysian economy: Where are we?

2. Energy efficiency and utilization: *How efficient, clean and sustainable?*

(cont'd)


➔ Hydropower, a clean energy, currently accounts for only 2% of the total energy supply, down from 3.3% in 2000 and 4.5% in 1990.

Continuing high dependence on fossil fuels

	Crude Oil	Petroleum Products	Natural Gas	Coal and Coke	Hydro-power	Total
Primary energy supply (ktoe)						
1980	5,901	2,360	2,237	53	383	10,934
1990	8,783	3,651	5,690	1,326	915	20,365
2000	21,673	1,431	20,194	2,486	1,560	47,344
2010	22,487	2,521	36,936	14,777	1,577	78,298
Annual change (% CAGR)						
1981-90	4.1	4.5	9.8	38.0	9.1	6.4
1991-00	9.5	-8.9	13.5	6.5	5.5	8.8
2001-10	0.4	5.8	6.2	19.5	0.1	5.2
Share (% of total)						
1980	54.0	21.6	20.5	0.5	3.5	100.0
1990	43.1	17.9	27.9	6.5	4.5	100.0
2000	45.8	3.0	42.7	5.3	3.3	100.0
2010	28.7	3.2	47.2	18.9	2.0	100.0

Source: Malaysian Green Technology Corporation or GreenTech Malaysia (formerly Malaysia Energy Centre or Pusat Tenaga Malaysia/PTM)

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II. Sustainability of the Malaysian economy: Where are we?

3. Natural resources & environment – *forest cover*


➔ Malaysia's forest areas at 20.46 million ha or 62.3% of total land area is double the forest-to-land ratio for the world and various country groupings (FAO).

➔ NC2 puts it at 18.30 million ha, or 55 percent of the total land area with a targeted minimum forest cover of not less than 50% in perpetuity.

	Year			Annual change (CAGR %)		
	1990	2000	2010	1990-2000	2000-2010	1990-2010
Forest area (sq. km)						
Malaysia	223,760	215,910	204,560	-0.4	-0.5	-0.4
Country groupings						
Low income	4,720,590	4,423,810	4,154,870	-0.6	-0.6	-0.6
Middle income	27,386,910	26,717,110	26,420,030	-0.2	-0.1	-0.2
Upper middle income	20,383,720	20,140,350	20,055,780	-0.1	0.0	-0.1
High income	9,474,470	9,596,803	9,629,420	0.1	0.0	0.1
World	41,581,970	40,737,723	40,204,320	-0.2	-0.1	-0.2
Forest area (% of land area)						
Malaysia	68.1	65.7	62.3	-0.4	-0.5	-0.4
Country groupings						
Low income	31.2	29.4	27.6	-0.6	-0.6	-0.6
Middle income	33.9	33.1	32.8	-0.2	-0.1	-0.2
Upper middle income	35.2	34.8	34.6	-0.1	0.0	-0.1
High income	27.9	28.2	28.7	0.1	0.2	0.1
World	32.0	31.4	31.1	-0.2	-0.1	-0.1

Source: FAO forestry statistics

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II. Sustainability of the Malaysian economy: Where are we?
3. Natural resources & environment – GHG
(greenhouse gases)

➔ Due to a higher energy use per capita, Malaysia's GHG per capita is higher than the average for the world as well as its peers in the upper middle income category but lower than the high income countries.

Carbon dioxide emissions (metric tons per capita)


	1970	1980	1990	2000	2008
Malaysia	1.34	2.02	3.11	5.41	7.57
East Asia & Pacific (developing only)	0.87	1.34	1.93	2.33	4.27
Upper middle income	1.93	2.82	3.55	3.55	5.32
High income	11.24	12.20	11.82	12.28	11.94
World	4.03	4.40	4.28	4.07	4.80

Compounded annual growth (%)

	1970-80	1980-90	1990-2000	2000-2008
Malaysia	4.2	4.4	5.7	4.3
East Asia & Pacific (developing only)	4.4	3.7	1.9	7.9
Upper middle income	3.9	2.3	0.0	5.2
High income	0.8	-0.3	0.4	-0.3
World	0.9	-0.3	-0.5	2.1

Source: World Bank database

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II. Sustainability of the Malaysian economy: Where are we?
3. Natural resources & environment – biodiversity

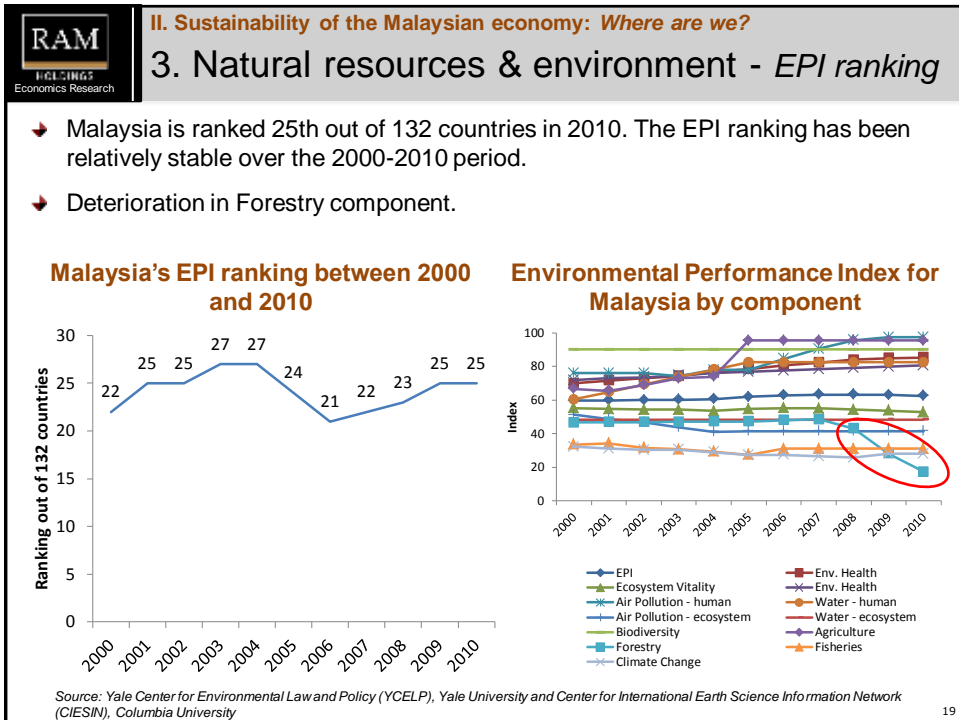
Malaysia's biodiversity performance and potential

2005			2008			Change in index (%)
Ranking	Country	Index (Max=100)	Ranking	Country	Index (Max=100)	
1	Brazil	100.0	1	Brazil	100.0	0.0%
2	Australia	95.8	2	United States	94.2	-1.6%
3	United States	90.3	3	Australia	87.7	-2.8%
4	Indonesia	90.0	4	Indonesia	81.0	-10.0%
5	Mexico	75.8	5	Mexico	68.7	-9.4%
6	China	64.8	6	China	66.6	2.7%
7	Colombia	57.3	7	Colombia	51.5	-10.0%
8	India	43.9	8	India	39.9	-9.0%
9	Japan	41.4	9	Japan	36.0	-13.1%
10	Russian Fed.	37.1	10	Russian Fed.	34.1	-8.1%
11	Peru	36.3	11	Peru	33.4	-8.1%
12	Philippines	33.7	12	Philippines	32.3	-4.2%
13	Madagascar	31.4	13	Ecuador	29.3	-6.7%
14	Ecuador	30.0	14	Madagascar	29.2	-2.8%
15	PNG	27.7	15	PNG	25.4	-8.1%
16	Venezuela, RB	26.8	16	Venezuela, RB	25.3	-5.6%
17	South Africa	23.5	17	Canada	21.5	-8.6%
18	New Zealand	22.3	18	South Africa	20.7	-6.8%
19	Canada	22.2	19	New Zealand	20.2	-8.9%
20	Argentina	18.5	20	Congo, Dem. Rep.	19.9	7.7%
21	Congo, Dem. Rep.	17.0	21	Argentina	17.7	4.1%
22	Chile	16.2	22	Chile	15.3	-5.2%
23	Tanzania	15.1	23	Tanzania	14.8	-2.4%
24	Malaysia	14.8	24	Malaysia	13.9	-6.7%

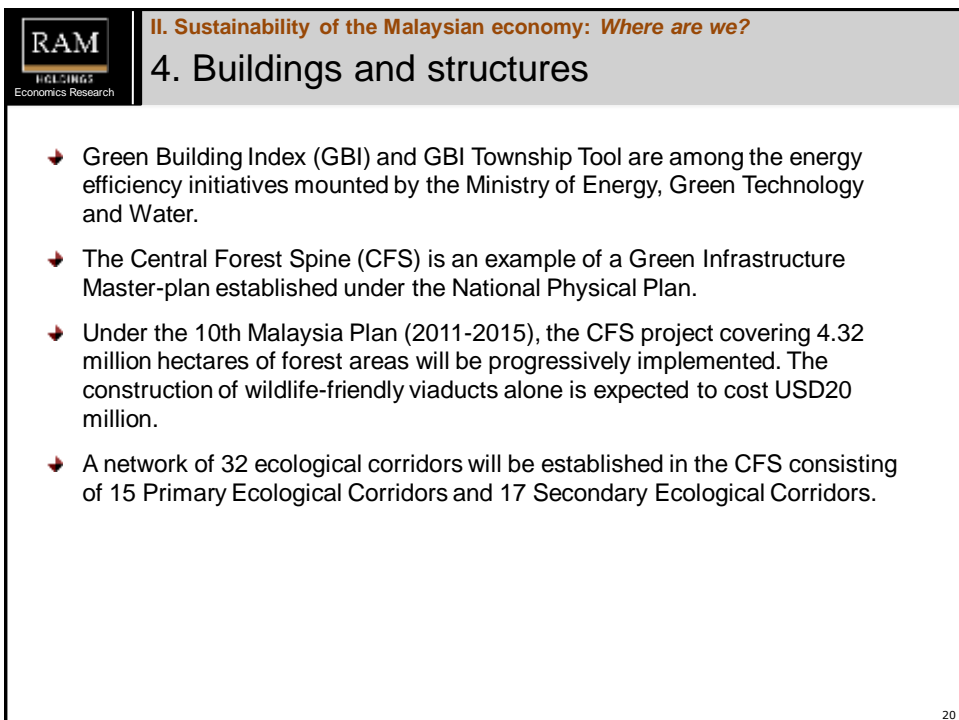
➔ Malaysia is ranked 24th among 216 countries in the biodiversity index used by the World Bank.

➔ The ranking was unchanged between 2005 and 2008 despite a 6.7% decline in the index.


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II. Sustainability of the Malaysian economy: Where are we?

5. Green lifestyle

- To a private individual or a corporate citizen, a behavior management which results in the achievement of a low carbon footprint is in itself a green economy activity.
- On a macro basis a green life style is associated with sustainable consumption supported by 3Rs (Reduce, Reuse and Recycling) activities.

Assessment of Malaysia's 3R practices in construction and demolition wastes

Management aspect	Information base*	3R Principles			Waste	
		Reduce	Reuse	Recycle	Disposal	Monitoring
Policies, regulations & laws	F	3	2	3	2	2
Management practices	F	3	1	2	2	3
Stakeholders' participation	P	U	2	3	2	3
Technologies	P	U	1	2	2	2

*Note: *Information base: G: good; F: fair; P: poor
Status rating: 1 = High, 2 = Moderate, 3 = Relatively low, U = Unknown*

Source: Asian Institute of Technology (2008)

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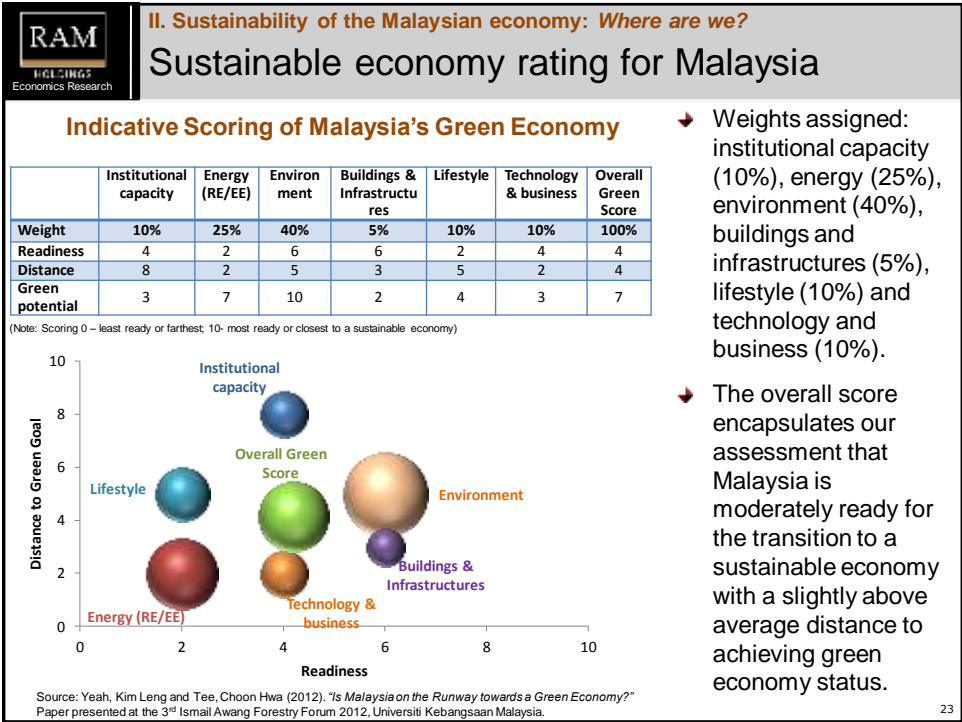
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II. Sustainability of the Malaysian economy: Where are we?

6. Technology and business

- Building a vibrant green technology industry is of the entry point projects (EPPs) under the Business Services National Key Economic Area (NKEA), one of the two focus sectors targeted under the Economic Transformation Programme (2011-20).
- In 2011, the number of green jobs created was 3,203, exceeding the target of 3,000 set under this EPP. The other two performance indicators are the development of occupational analysis (OA) and national competency standard (NCS) for the green technology sector, both of which were achieved in 2011 (ETP Annual Report 2011).
- The Green Building Index (GBI) incentives have also been extended to end December 2014. A Green Technology Funding Scheme (GTFS) was introduced in 2011 to support firms offering green products and services.
- A total of 24 projects and RM350 million worth of financing have been disbursed (ETP Annual Report 2011). To boost consumer demand and address safety concerns, guidelines for Eco-labeling and Environmentally Preferred Purchase have also been drawn up by the Ministry of Energy, Green Technology and Water.

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IV. Conclusion: *The Way Forward*

Concluding remarks

- Malaysia's **LARGE FOREST RESOURC BASE** and **HIGH BIODIVERSITY** enhance its potential to be a green and sustainable economy. Tremendous untapped potential to monetize the various tangible and intangible values, particularly the carbon sink benefits from a national and global perspective.
- Recent **INSTITUTIONAL DEVELOPMENTS** focusing on harnessing green technology and green growth opportunities have set Malaysia on an early path to a sustainable or green economy.
- However, there are both **INSTITUTIONAL** and **MARKET CONSTRAINTS**. Given its high dependence on fossil fuels, there is a need to accelerate the transformation of policies, institutions, life style, industries and technologies, to address both the supply-side and demand-side of the energy equation to achieve high income status with a low carbon footprint by 2020.
- Our assessment shows that Malaysia is mid-way in terms of **READINESS** to embrace green growth with a slightly lower scoring in terms of **DISTANCE** to reach its sustainable or green economy goal.

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Thank you

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