## SUSTAINABILITY

### Seven Misconceptions/Misinterpretations and Clarifications



Hezri Adnan, Ph.D ISIS Malaysia A-SLEAD National – Leading Higher Education Institution for Sustainable Development. 13 April 2015, AKEPT, Bandar Enstek.

## Presentation Outline

- 1. Sustainability is a new policy framing
- 2. Conceptually, sustainability is mainly about the environment
- 3. Sustainability is a technological problem and solutions are universal
- 4. Multidisciplinary approaches are the answer to solving development challenges
- Long-term challenges must be emphasized in addressing sustainability
- 6. The logic of profit threatens sustainability
- 7. Malaysia is on track to achieve sustainability

## Misconception/interpretation # 1

Sustainability is a new policy framing evident with the formulation of Sustainable Development Goals

## A new dawn? Enter the SDGs

#### From MDGs (2000-2015)



Ban Ki-Moon clustered SDGs into six "essential elements": dignity, prosperity, justice, partnership, planet, people.

#### to SDGs, changing the world in 17 steps (2016 - 2030)

#### The Open Working Group on Sustainable Development Goals (OWG) has proposed 17 goals and 169 targets

- 1. End poverty in all its forms everywhere
- 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- 3. Ensure healthy lives and promote well-being for all at allages
- 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
- 5. Achieve gender equality and empower all women and girls
- 6. Ensure availability and sustainable management of water and sanitation for all
- 7. Ensure access to affordable, reliable, sustainable, and modern energy for all
- growth, full and productive employment and decent work for all
- 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- 10. Reduce inequality within and among countries
- 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- 12. Ensure sustainable consumption and production patterns
- 13. Take urgent action to combat climate change and its impacts
- 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- 8. Promote sustained, inclusive and sustainable economic 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
  - 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

## Four policy framings (modern idea)



### **Overview of SDGs Processes**



## Misconception/interpretation # 2

Sustainability is mainly about nature conservation and pollution control, hence only remotely relevant to other public policy issues such as growth, trade, employment, wellbeing and justice

### Four constituent issues of sustainability



#### Everything?

Nothing?

Something?



Conception, growth and maturity of key 'green agencies in Malaysia



Current Institutional Set-Up for the Environment (social equity portfolios not included)

### Desirable values for Malaysia's future



## Challenges in policy framing

- Sustainability is too broad, therefore difficult to handle
- intellectual dominance of neoclassical economics free market economics, moneterism or neoliberalism
- apathy among public and business sector
- The dynamics of federal-state relationships

## Misconception/interpretation # 3

Sustainability is a technological problem, hence solutions are universal and must be informed by mainly natural sciences and engineering disciplines

## The IPAT identity





### Transition from an empty to a full world

#### HOLOCENE -----→ ANTHROPOCENE

Up to 1800

By 2100, the global population is projected to be 3000 million more than today, with 70–90 % of people living in urban regions

## Urbanisation trends in Malaysia



0 5 10 20 30 40 Kilometers

	1990	2009	Compound Annual Growth Rate (%)	
Population	3,079,200	5,969,300	3.55	
Urban Area (sq km)	621.01	1555.23	4.95	
Population Density	4,958	3,838	-1.34	





Source: World Urbanization Prospect 2009

CHANGE OF URBAN POPULATION, 2005-2010

### Material Flow Malaysia, 1970-2008



# Economic issue - pricing of water resources



(Penang) Average for other bills per month = RM 75.00 for mobile phone; RM 75.00 for electricity; RM 100.00 for Astro; RM 26.00 for cooking

Average water bill per month = RM 23.00 (KL) RM 11.00

## Social issue – justice and identity



Norihan a/p Jamin

"We are trapped. We turn left, we face palm oil plantations, we turn right we see logging, behind us we see iron ore mines, and facing the lake, we can see that it is dying" "I miss my childhood memory. On a boat together with my friends, we looked for lotus fruits. It was as if we were in a paradise full of lotus." "Saya sangat rindukan kenangan zaman kanak-kanak. Saya dan kawankawan menaiki perahu bagi mencari buah teratai. Seolah-olah kami berada di dalam syurga yang di sekelilingnya dipenuhi bunga teratai."

"Kami terperangkap. Menoleh ke kiri kami berhadapar dengan ladang kelapa sawit, menoleh ke kanan kami melihat pembalakan, di belakang pula ada perlombong merenung tasik, kami lihat ianya sedang tenat."



Jamailah Ismail, resident in Tasik Chini. She is a political science graduate from a premier Malaysian university who is still seeking employment.

Jamailah Ismail, penduduk Tasik Chini. Beliau merupakan graduan sains politik dari sebuah universiti terkemuka Malaysia yang masih mencari pekerjaan.

### Malaysia We Want Survey (n=594, June-July 2014)



Vote(s)

## Misconception/interpretation # 4

Multidisciplinary approaches are the antidote to solving development problems

### We are dealing with...



## Sources of Knowledge on S.D.



### The knowledge challenge

#### Natural science

- The extent of pollution load and biodiversity loss
- How to restore a degraded ecosystem?
- How to combine disciplines to address environ degradation?

### Social science & humanities

- What is the origin & consequences of environmental degradation?
- What are the core values for a sustainable society?
- The role of political & cultural power in reversing degradation

#### Policy & Econ., and Political Science

- How international politics influence domestic policies?
- The valuation of environmental services
- How to design effective policy processes & draw lessons for developing countries

### Sustainability across disciplines



Source: Kajikawa 2007



Malaysia's only UNESCO Biosphere Reserve, Tasik Chini is under threat from iron ore mining.

### Facts and counterfacts



## Misconception/interpretation # 5

Sustainability is mainly about the future, hence long term challenges must be emphasized in addressing sustainability challenges

### The Anthropocene

A new geologic epoch in which humankind has emerged as a globally significant (and potentially intelligent) force capable of reshaping the face of the Earth past all recognition

### The Stages of the Anthropocene

*1. Pre-Anthropocene events:* Fire-stick farming, megafauna extinctions, early forest clearing

2. Anthropocene Stage 1 (ca. 1800 - 1945). Internal combusion engine, fossil fuel energy, science & technology



**3.** Anthropocene Stage 2 (1945 - 2010 or 2020). The Great Acceleration, new institutions and vast global networks

**4.** Anthropocene Stage 3 (2010 or 2020 - ?). Business-as-usual,geoengineering, or the Great Transition?

## Mind the sustainability gap



Figure 2. Conceptual framework summarizing the sustainability challenge. Sustainability targets must be identified, and the sustainability gap must be recognized and quantified. Targets should consider biophysical, social and economic aspects of sustainability in a nested approach (Figure 1). Long-term and foundational issues need to be examined to identify the values and institutions required to reach sustainability. Shorter-term policy actions are needed to provide incentives and regulations to encourage sustainable behaviors. The dashed curve indicates a potential future trajectory towards sustainability, and highlights the challenge of turning around the current unsustainable trend.

#### Fischer et al 2009

## Misconception/interpretation # 6

The capitalist logic of profit is a threat to the pursuit of sustainability; green economy or growth follows the mainstream economic thinking

### The age of green technology?



### Green economy and energy



HSBC Global Research forecasts that the global market for clean energy and energy efficiency investment opportunities will triple to US\$ 2.2 trillion by 2020 (Robins et al. 2010)

How to break out of the current lock-in to fossil fuels?

### Green economy strategies for sustainability



### Misconception/interpretation #7

As a successful developing country, Malaysia is on track in achieving sustainability based on its ability to keep 50% land area under forest cover; FELDA is also a global class example of how poverty could be addressed at a large scale

### Translating SD goals into local context



1991-2000

Sixth Malaysia Plan, 1991-1995

### Malaysia's development performance



#### Economic, social and environmental convergence?

### Cross-cutting risks threaten the nation's survival



#### Business-as-usual is not an option



#### ...hence need to decouple economic growth with environmental impact

## International Perception

Ranked 3<sup>rd</sup> highest number of threatened species, outranked only by Ecuador and the US

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CCPI Ranl	Country	Score*	Partial Score
39	Poland	47.2	
40	China	47.0	
41	Italy	47.0	
42	Japan	46.9	
43	Greece	46.8	
44	Ireland	46.4	
45	Cyprus	46.0	
46	Singapore	45.4	
47	Ukraine	44.7	
48	Kazakhstan	44.6	
49	Malaysia	44.2	
50	Russia	43.9	
51	Korea, Rep.	41.3	
52	Luxembourg	39.2	
53	Canada	37.6	
54	Australia	35.5	
55	USA	33.4	
56	Saudi Arabia	30.0	
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## CONCLUDING REMARKS

- Sustainability is here to stay, not a mere fashion
- Convergence of socioeconomic issues with environmental security concerns
  - The middle class in Malaysia (30%, most without tertiary education, spending bulk of income on food and transportation)
- Universities hold the key in the development of core competencies for sustainability
  - ESD agenda to include 'knowledge brokering' and 'policy entrepreneurship' skills
  - Scholar-activists modality in a science-averse society?



### THANK YOU for listening

E-Mail: hezriadnan@isis.org.my