MSIA Reading Series 10

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1. Introduction

"Greening the economy: Towards boosting well-being and prosperity' revolves around the issues of sustainable development of Malaysia's economy while boosting the well-being and prosperity of the nation. Moving in this direction requires a paradigm shift. There is a need to transform the traditional economic model to a material balance model that internalises the negative externality effects on society and the environment. The traditional economic model has failed to consider the social dan environmental impacts. The Sustainable Development Goals (SGD) is the universal call to end poverty, protect the planet and ensure that by 2030, all people can enjoy peace and prosperity. Prof Dr Abdul Rahim has shared with us the transition from a traditional development economy to a more sustainable one and what it takes to make and embrace that change.

2. Development Models

In the transition to a more sustainable development economy, an understanding of the development paths and development models would be enlightening.

2.1 Industrial Revolution

Industrial development has been adopted as an essential pathway to raise a country's gross domestic product (GDP). But the industrial revolution has led to environmental depletion due to conventional business activities or industrial pollution. Industrial pollution is due to:

i. Burning coal;
ii. Burning fossil fuels (e.g., oil, natural gas, petroleum);
iii. Chemical solvents used in dying and tanning industries;
iv. Untreated gas and liquid waste are being released into the environment.

In addition, industrialisation has also led to habitat destruction, which it will affect:

i. Forest area shrank due to land development;
ii. Destruction of habitat;
iii. Ozone layer thinning;
iv. Significant climate change issues (e.g., global warming, glacier melts, death of plantations, flora and fauna extinction).

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According to Conserve Energy Future (2013), the causes of pollution by industrialisation are:

i. Lack of policies to control pollution;
ii. Unplanned industrial growth;
iii. Use of outdated technologies;
iv. Presence of a large number of small-scale industries;
v. Inefficient waste disposal;
vi. Leaching of resources from our natural world; and
vii. Natural resource use.

2.2 Sustainable Development Goals (SDGs)

The industrialization process has to take heed and manage the causes of the above pollutions. In that context complying and embracing the Sustainable Development Goals (SDGs) is essential. The SDGs or Global Goals are a collection of 17 interlinked global goals are based on three pillars: economic, environmental and social. There are four (4) key economic systems that need to be transformed which are:

i. Change the city to a sustainable/green city;
ii. Change the energy system to decarbonize /net zero carbon;
iii. Change production and consumption to a traceable supply chain; and
iv. Change the food system by avoiding food loss/food waste.

According to the International Institute for Applied Systems Analysis (IIASA) (2022), The World in 2050 (TWI2050) aims to address the full spectrum of transformational challenges related to achieving the 17 SDGs in an integrated manner to minimise potential conflicts among them and reap the benefits of potential synergies of achieving them in unison. TWI2050 identifies six exemplary transformations which will allow achieving the SDGs and long-term sustainability to 2050 and beyond:

i. Human capacity and demography (Education, health, ageing, labor markets, gender, inequalities);
ii. Consumption and production (Resource use, circular economy, sufficiency, pollution);
iii. Decarbonization and energy (Energy access, efficiency, electrification, decent servies);
iv. Food, biosphere and water (Sustainable intensification, biodiversity, forests, oceans, healthy diets, nutrients);
v. Smart cities (Decent housing, mobility, sustainable infrastructure, pollution); and
vi. Digital revolution (Artificial intelligence, big data, biotech, nanotech, autonomous systems)

2.3 Green Business

Green business practices are commercial activities that has minimal negative impact or potentially a positive effect on the global or local environment, community, society or economy. Green business is described as green if it matches with the following four criteria (Cooney, 2009):

i. It incorporates principle of sustainability into each of its business decisions;
ii. It supplies environmentally friendly products or services that replaces demand for non-green products and/or services;
iii. It is greener than traditional competition;
iv. It has made an enduring commitment to environmental principles in its business operations.

The top global companies going green include McDonald's, The Body Shop, Tesla Motor, Google, Honda and Starbucks. In Malaysia, the entities responsible for the Green Program are Sirim QAS International, Global GreenTAG, DQS Certification, BSI Services, Malaysia Rubber Board, and Construction Industry Development Board (CIDB).

Food systems are the key to sustaining the earth, life and health. Food systems transformation matters as it involves issues related to human health & well-being, environment conservation, food loss and food waste and issues of labour exploitation. There are ten critical transitions to transform food and land use, which are:

i. Healthy diets;
ii. Productive and regenerative agriculture;
iii. Protecting and restoring nature;
iv. Healthy and productive ocean;
v. Diversifying protein supply;
vi. Reducing food loss and waste;
vii. Local loops and linkages;
viii. Digital revolution;
ix. Stronger rural livelihoods; and
x. Gender and demography

3. Discussions, Questions and Answers

The Sembang Pagi Sabtu moderator, panellist and participants have discussed and elaborated on the following matters:

i. Dato' Dr. Abd Rahim Nik specified an important timeline for 2050 to achieve net zero emissions. He informed that Malaysia, through the Ministry of the Environment and Water (KASA), will come out with a long-term low-emission

development strategy to achieve net zero. He mentioned a report from World-Wide Fund for Nature (WWF) on the net zero pathway for Malaysia, that has stated essential aspects of having adequate technologies and research and development (R&D) to be green. In addition, using the latest technologies is vital in power generation, transportation, mobility and others. Based on the report findings, he raised concerns if Malaysia has adequate R&D to adopt the norm, budget to execute the green program, and is in a position to be able to use these latest technologies to be green. Prof. Dr. Abdul Rahim Abdul Samad acknowledged that it is not easy for Malaysia to achieve net zero carbon by 2050. However, he explained that the government introduced many initiatives to support green practices, especially targeting the industry to achieve net zero carbon. In the 2023 budget, the government allocated RM3 billion for green technology financing and RM1.5 billion for promoting sustainable development.

ii. TPr. Herlina Ab Aziz inquired about the tourism industries' efforts to support the "going green" initiative. Prof. Dr. Abdul Rahim Abdul Samad described that the measures done by the tourism industries, such as hotel operators, include promoting green practices through their operation, using energy-efficient appliances, and "green" building structures. Dr. Mohd Shahwahid Haji Othman added that ecotourism is an important sector that contributes to the "going green" efforts. For instance, KOPEL in Kinabatangan, Sabah practices community-based tourism by having a good relationship with the Forestry Department, where they allow the local community to manage the forest reserve for ecotourism purposes. The construction of the building and chalets follows the sustainability concept attracting many tourists. He suggested that additional efforts be made to encourage more community-based ecotourism or agro-tourism and allow more participation from the local community. This could set the example for going green effort without relying on big businesses.

iii. Puan Sri Dr Jahara Yahaya raised concern about the challenge to educate the public on "going green". Prof. Dr. Abdul Rahim Abdul Samad indicated that public outreach programs must be conducted regularly by targeting particular groups, such as students. He also suggested that incentives could be given to the public to encourage green practices and penalties to penalise any misconduct. Dr. Haslina Hashim suggested that a more committed enforcement should be implemented.

iv. Dr. Mohd Shahwahid Haji Othman asked how to convince the government to allocate funds for the "going green" efforts. Prof. Dr. Abdul Rahim Abdul Samad clarified that the government is slowly moving toward giving funds for green efforts. For instance, a carbon tax was introduced in the recent budget. He also suggested that academicians could provide advices and ideas to the government.

v. Dato' Dr. Abd Rahim Nik suggested inviting Bursar Malaysia to exchange information on the voluntary carbon market exchange that will launch at the end of this year.

vi. Dr. Haslina Hashim shared her experiences on community-based ecotourism efforts in Bung Jagoi, Bau, Sarawak where the community surrendered part of their land to be a communal asset. The community work closely with the Forestry Department and Sarawak Forestry Corporation to promote local products (e.g., Tuak), preserve natural resources and published books for forestry research purposes.

vii. TPr. Herlina Ab Aziz raised concern about the conflicts with the state government that requires payment or compensation for the land conservation program. Prof. Dr. Abdul Rahim Abdul Samad stated that the state government could apply for the ecological fiscal transfer fund as the federal government allocates RM100 million as incentives if the states gazette new areas for conservation.

viii. Dr. Mohd Shahwahid Haji Othman asked how to incorporate the "going-green" values and inputs from the presentation in the Social Impact Assessment analysis and report writing. Prof. Dr. Abdul Rahim Abdul Samad suggested the values could be incorporated through the social impact management plan (SIMP). He also suggested that the impact of the development project on the ecosystem can be valuated in terms of monetary value. Dr. Mohd Shahwahid Haji Othman commented that giving value to impacts has already been incorporated in the EIA. However, he suggested that the points in the last slide could be incorporated into mitigating measures and SIMP during the SIA.

ix. Puan Sri Dr Jahara Yahaya suggested the implementation of pollution tax for the ecological damages done by the development project. Dr. Kuppusamy Singaravelloo indicated that pollution tax has to be proposed at the highest level (Federal Government) and it would involve a long process as it is not easy to introduce any new tax. However, pollution fees or chargers could be implemented by the State Government.

Together with this write-up, the full power point slides for the SPS session is provided in Appendix I.

4. Conclusion

The SPS on "Greening the economy: Towards boosting well-being and prosperity' have highlighted the industrial revolution and with it the range of pollutions to the environment and society, the need to embrace SDG and green businesses. The session has also witnessed the rich discussions provided by participants in raising issues, suggestions and updates of

Government initiatives in the national transition towards a more sustainable development economy.

Refernce

Conserve Energy Future (2013). Causes, effects and solutions to industrial pollution on our environment. *https://www.conserve-energy-future.com/causes-effects-of-industrial-pollution.php*.

Cooney, S. (2009). Build a green small business: profitable ways to become an Ecopreneur: McGraw-Hill books.

IIASA (2022). The World In 2050 (TWI2050). International Institute for Applied Systems Analysis (IIASA). *https://www.unsdsn.org/the-world-in-2050.*

Acknowledgement

The contributions and deliberations of the panellists during the Sembang Pagi Sabtu session are very much appreciated.

Disclaimer

In the spirit of inclusivity and transparency MSIA is open and frequently invites experts of various fields and stakeholders to share their perspectives on how the SIA processes can be more efficacious. Any views and assumptions expressed however are solely those of the authors and do not necessarily reflect those of MSIA.

Appendix I


GREENING THE ECONOMY : Towards Boosting Well-being and Prosperity
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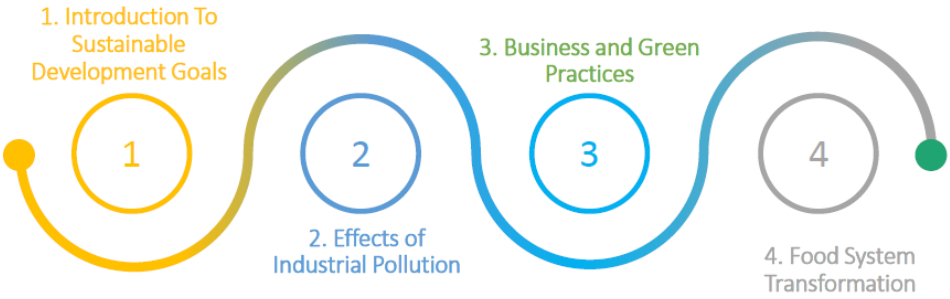
GREENING THE ECONOMY: Towards Boosting Well-being and Prosperity
UPM
UNIVERSITI PUTRA MALAYSIA
MSIA
Malaysian Association of Social Impact Assessment

Presentation Outline



SUSTAINABLE DEVELOPMENT GOALS

1. Introduction To Sustainable Development Goals (SGDs)

What are Sustainable Development Goals (SGD)?

- Also known as the **Global Goals**
- Adopted by the United Nations in 2015
- Is the universal call to **end poverty**, **protect the planet**, and ensure that by 2030 **all people enjoy peace and prosperity**
- The **United Nations designed 17 goals (17 SDGs)** in various fields to achieve sustainable development.
- The 17 SDGs are **integrated designs**.
- The 17 SDGs are integrated because they recognize that action in one area will affect outcomes in others and that development must **balance social**, **economic, and environmental sustainability**.

"Socio-economic system change" for the sustainable future of humanity

- Human economic system is on the **collision** course with the earth system.
- Global commons – social contract
- The fundamental socio-economic system change is required to put our future on the sustainable pathway.
- Social transformation to enable them

Transformation through 2030 to 2050 Sustainable earth, society, and economy

- Earth=Biosphere as the non-negotiable and hard-wired basis for the **social and economic prosperity**
- Global Commons Stewardship makes SDGs achievable on the basis of the stable and resilient earth system

Source: SDGs Wedding Cake, Stockholm Resilience Center

Selected systems to be transformed: The World in 2050

The World in 2050, IIASA

2. Effect of Industrial Pollution

Industrial Revolution

- Industrial Revolution by business activities actively started in 1760 (Council of Europe, 2021)
- Technology developed rapidly, science became advanced, and manufacturing actively operates all around the world
- International trade is imposed, country all around the world actively **increase production** in order to generate national income.
- **As business activity rigidly operates, the environment is depleted due to man-made pollution.**

Pollution

- The environment is depleted due to **conventional business activities**.
- In other words, it's called Industrial Pollution.
- The cause of Industrial Pollution due to:
  i. Burning coal
  ii. Burning fossil fuels like oil, natural gas, and petroleum
  iii. Chemical solvents used in dyeing and tanning industries
  iv. **Untreated** gas and the liquid **waste** being released into the environment

Habitat Destruction

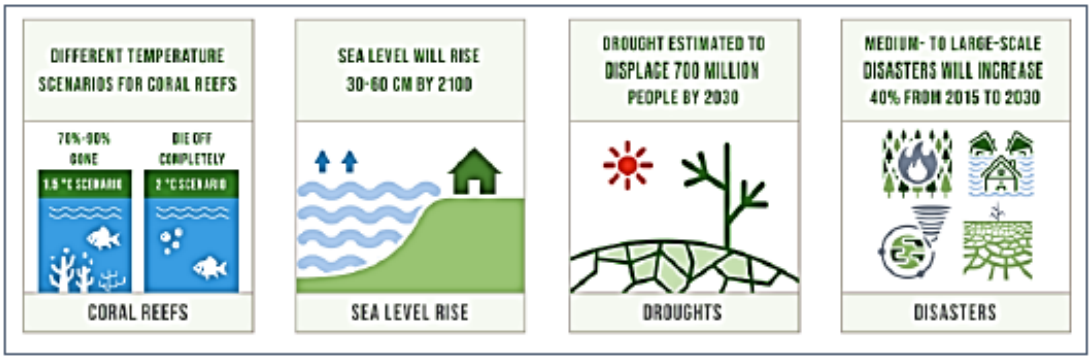
Business activities/industrialization also will affect:

- The forest area shrank due to land development
- Destruction of habitat
- Thinning the ozone layer
- Significant climate change
  - ➢ Global warming
  - ➢Melts glacier
  - ➢Death of plantation (agriculture/food supply collapse)
  - ➢**Extinction** of flora and fauna

According to Conserve Energy Future (2013), causes of the pollution by industrialization are:

1. **Lack of policies** to control pollution
   i. Unplanned industrial growth
   ii. Use of outdated technologies
   iii. Presence of a large number of small-scale industries
   iv. Inefficient waste disposal
   v. Leaching of resources from our natural world
   vi. **Natural resource use**

The WHO is aware that due to industrialization or business activities, the world experienced major climate change that will affect:



Sources: The Sustainable Development Goals Report (2022)

3. Business and Green Practices

What is Green Business Practices

- A business that has **minimal negative impact** or potentially a **positive effect on the global** or local **environment, community, society, or economy.**

- Any organization that participates in **environmentally friendly** or **green activities** to ensure that all processes, products, and manufacturing activities **adequately address** current environmental concerns while maintaining a profit.

According to Cooney (2009), green business is described as green if it matches the following four criteria:

1. It incorporates **principles of sustainability** into each of its **business** decisions.
2. It supplies **environmentally friendly** products or services that replaces demand for nongreen products and/or services.
3. It is **greener** than traditional competition.
4. It has made an enduring commitment to **environmental principles** in its business operations.

SDG 13 supported the Green Business

- SDG 13 climate action is one of 17 Sustainable Development Goals established by the United Nations General Assembly in 2015
- The official mission statement of this goal is to "Take urgent action to combat climate change and its impacts"

What the Green Business can do?

- Reduce Waste and Decrease Costs
- Earn Eco-friendly Incentives and Rebates
- Attract "Green" Customers
- Improve Your Brand Image
- Increase Sales Through Innovation
- Avoid Added Costs
- Promote a Healthier, Safer Workplace
- Establish Community Relationships
- Increase Productivity
- Reduced Costs With Efficient Technology

Top Companies that are Going Green

McDonald's

Uses energy-efficient appliances thereby cutting energy wastage by 25% during their business activities

The Body Shop

Promoting sustainable ingredients and those created using 'green chemistry' (processes that reduce the use or production of chemicals that damage the environment)

Tesla Motor

Involved in the manufacturing of cars that are eco-friendly. The amazing aspect of it is that it does so without forfeiting the power and speed of the cars

Google

Constructed the world's most energy-efficient data centers and continuously campaigns for the need for energy conservation and the use of renewable energy sources as well as clean energy products.

Honda

The company has invested a lot of resources in producing fuel-efficient vehicles and is constantly seeking ways to develop a hydrogen fuel cell-powered vehicle.

Starbucks

Enforcing measures such as the bean-to-cup approach and the ingenious use of recycled coffee grounds in the making of their coffee tables

The entities in Malaysia responsible for the Green Program:

Scheme Owner:

	Suruhanjaya Tenaga (ST) - Energy Efficiency Rating
	Sururhanjaya Perkhidmatan Air Negara (SPAN) - Water Efficient Labelling Product Scheme
	Malaysian Timber Certification Council (MTCC) - PEFC Certification & FSC Certification
	FRIM Product Certification Services FRIM PCS - Testing requirement in product safety, quality and performance certification
	Malaysian Palm Oil Berhad (MPOB) - Malaysian Sustainable Palm Oil (MSPO) Certification Scheme
	SIRIM Berhad - SIRIM Carbon Footprint Labelling Scheme

The entities in Malaysia responsible for the Green Program:

Scheme Owner:

	SIRIM QAS International Sdn. Bhd. - SIRIM Eco labelling Scheme
	Global GreenTAG Sdn. Bhd. - Global GreenTag Certification Scheme
	DQS Certification (M) Sdn. Bhd. - GC Mark Green Products Certification Scheme
	BSI Services Malaysia Sdn. Bhd. - Microgeneration Certification Scheme (MCS)
	Lembaga Getah Malaysia - Standard Malaysian Glove (SMG) Scheme
	Construction Industry Development Board (CIDB) - Malaysian Carbon Reduction and Environmental Sustainability Tools (MyCREST)

4. Food System Transformation

Food systems are key to sustaining the earth, life, and health

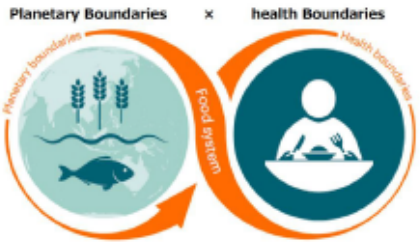
Since the food system is imposing a major threat to **planetary stability**, the global community is making an effort to transform the food system.

In what way can the world find a clear pathway to achieving a **sustainable value chain?**

What **institutional** needs to be set up, and what **policy** needs to be introduced?

Food systems in the Anthropocene are key to connecting and sustaining the **well-being of humanity** and the earth's environment.

By 2050, the global food system must be able to supply **healthy food** to nearly 10 billion people within the **sustainable boundaries** of the earth's system.



Why food systems transformation matters

Human health and well-being

- 130 million people in acute food insecurity (in 2019)
- Prevalence of undernourishment in 2018: 9% (680 million people)
- 2 billion people are overweight or obese
- Poor-quality diets are linked to 11 million deaths per year
- Unsafe food costs low-and middle-income economies about $110 billion each year

Environment Conservation

- Agriculture, forestry, and other land uses account for 1/4 of the entire GHG emissions
- Food system is responsible for 80% of land use change and biodiversity loss
- Food system is a source of water ecosystem pollution by chemical pesticides and accounts for 80% of freshwater use

Food loss and food waste

- 1/3 of food produced for human consumption is lost or wasted globally

Other issues: Exploitation of labor

Source: Takeaways from the Food Systems Summit 2020 27

10 areas for food systems and land-use transformation

Growing Better:
Ten Critical Transitions to Transform Food and Land Use

Source: Growing Better

DISCUSSION

What kind of role can stakeholders take in mitigating global climate risk?