

SUMMARY
Malaysia vision and pathway towards Low carbon Society (LCS)

Ho Chin Siong
Faculty of Built Environment,
Universiti Teknologi Malaysia, 81310 Skudai, Malaysia

Malaysia being a young and fast growing nation, the role of economic growth and improving the lives of the people is significant. Presently it is undergoing a rapid industrialization process and has investment in manufacturing, infrastructure development and hence has high demand for energy consumption. The rapid economic growth places a heavy demand and stress on resources means that a continued dependence on energy, in particular on fossil fuel is important to propel further growth. Although Malaysia was blessed with relatively large tracts of natural tropical forests, (almost 60% of its total land area), just like other developing countries, some of the forest areas may be converted into agriculture and other urban use to generate job opportunities for the growing population. The pressure for more forested land and peat land being converted into plantations is becoming more serious with escalating crude palm oil (CPO) prices and the hype over bio fuel, oil palm ventures. The fact remains that peat and forest are vital carbon sink and that disturbed peat or forest will be a significant source of carbon emission

The Roadmap to achieve a Low Carbon Society certainly requires a combination of policy strategy implementation, institutional, technological innovation, and behavioral changes. In the case of Malaysia, the key options to achieve Low carbon society are summarized below:-

- (i) Introduction of more pragmatic and cost effective ways of reducing greenhouse gases emissions for example through greater use of public transport
- (ii) Protection of the carbon sinks such as forest and peat/ wetland as Malaysia has a large green asset (forest)
- (iii) Motivation of desired behavioral changes in cutting wastage or use of 3R (reuse, reduce and recycle)
- (iv) Designing and building more energy efficient cities or eco villages.
- (v) Allocating major investment in R &D in green technology and energy efficient technology / engines
- (vi) Conducting more research collaboration between experts from Asean and developed nations on climate change and mitigation measures on CO₂ emission.

Based on the Kaya identity, we may sum up the policy recommendations on how we can achieve Low Carbon society in Malaysia by manipulating the variables in the formulae. The key options in reducing GHG emission are to reduce Per capita activity, Energy intensity and Carbon intensity. The increase in population factor may be difficult to manage because Malaysia is still experiencing rather high growth rate of 2.6% p.a.

- Population (Total population)

The population growth rate of 2.6% p.a. will continue to be contributed by natural increase and migration. The rapid industrialization and modern agriculture will create job opportunities in urban as well as rural area. However, household size may fall due to high urbanization and increasing percentage of female in the workforce. The high percentage of about 50% of young population (age cohort 0-14 years old) of existing demographic

profile show high potential of population growth. This increase in population will contribute to the increase in the total GHG emission. It is important for the nation building program to focus on both developing the economy and in improving the quality of the life of Malaysians. Through education, innovation and good moral values such as “safeguarding the environment” (one of the 10 principles of Islam Hadhari (Civilization Islam), the present and future generation of Malaysian will hold to noble values to protect the environment

- Per capita activity (Activity/ Population)

This parameter refers to the activity or service per population. The affluent lifestyle, environmental awareness education and urban planning may affect the CO₂ emission per capita activity. With the growing disposable income of the Malaysians, the total emission will increase significantly if lack of environmental awareness continues to persist. In order to reduce CO₂ emission, more campaigns for environmental and eco friendly lifestyles such as practicing the 3Rs (reduce, reuse and recycle) should be encourage. In addition, National Physical Plan (2005) and National Urbanization policy(2006) promoting Transit Oriented development and compact city will be able to promote greater use of public transport and non motorized transport. Both of these policies will need to be translated into development plans at local and regional levels such as Structure Plan or Local plans so that it can be implemented by the local planning authorities.

- Energy intensity (Energy/ activity)

This parameter measures the energy per activity. Reduction in energy intensity may be achieved by energy efficiency or material efficiency measures. With the setting up of the Malaysia Energy Centre (PTM), efforts to improve Energy Efficiency (EE) through the promotion of low energy building and passive architecture design in buildings would be further enhanced. Energy efficiency devices should also be used not only in buildings, but only for vehicles and industrial process.

- Carbon intensity (Carbon/Energy)

This parameter refers to the carbon content in each energy source. The present trend of our energy sources need to be further diversified to wider use renewable energy such as bio fuel, hydro, solar and possibly alternative fuel such as possibly nuclear power in the future. It is also important to establish and support cleaner production programs with the use of CDM.

- Preservation of Forest as Carbon sink

Malaysia as a tropical country which is endowed with more than 50% forest cover is a precious green asset capable of acting as carbon sink. Malaysia, among countries blessed with a wealth of tropical rainforests in recent Tropical Forest Leader meeting in New York (Joint statement, 24 September 2007) agree to intensifying collective efforts for the management, conservation and sustainable development of all types of forests, along with achievement of the internationally agreed development goals, including the Rio Conference’s Declaration on Forests, Agenda 21 and the Millennium Development Goals.

For a fast growing nation with rapid urbanization such as Malaysia, implementation of planning of low carbon cities/ region concept can be an effective policy strategy to achieve the Vision and Path way towards LCS