



Development of Low Carbon Society Scenarios for Asian Regions

Being a region that encompasses half the humanity and is poised to double its world GDP share to 52% by 2050, Asia is witnessing transformative economic growth and socio-political change, and putting on forever greater global economic and strategic weight. In a world of increasing climatic uncertainty and resource constraint, a growing global footprint demands greater global responsibilities among Asian economies, particularly in promoting regional cooperation and taking ownership of the global economic and environmental agenda.

It is in this light that the project of **Development of Low Carbon Society Scenarios for Asian Regions** is initiated under the auspices of SATREPS. A joint effort between Japan and Malaysia, the 5-year research program that commenced in July 2011 brings together a team of multidisciplinary researchers from Kyoto University, the National Institute for Environmental Studies (NIES), Okayama University and Universiti Teknologi Malaysia (UTM) with a view to defining Low Carbon Society (LCS) visions and crafting a road map towards LCS at the national and city-regional levels, in line with Malaysia's voluntary commitment to reduce the country's carbon intensity by 40% by year 2020 (based on 2005 levels).

The research project begins with a pilot study of Iskandar Malaysia (IM), a "special economic region" located at the southernmost tip of Mainland Asia, that is poised to become a regional economic powerhouse by 2025. The project will showcase best practice in LCS for the Asian Regions and will therefore benefit not only IM and Malaysia, but also the Asian Regions. It will be a hands-on project where researchers and government officials of Asian countries work together in implementing research outputs within the cities or regions involved, leading to the eventual establishment of an Asian Low Carbon Society network.



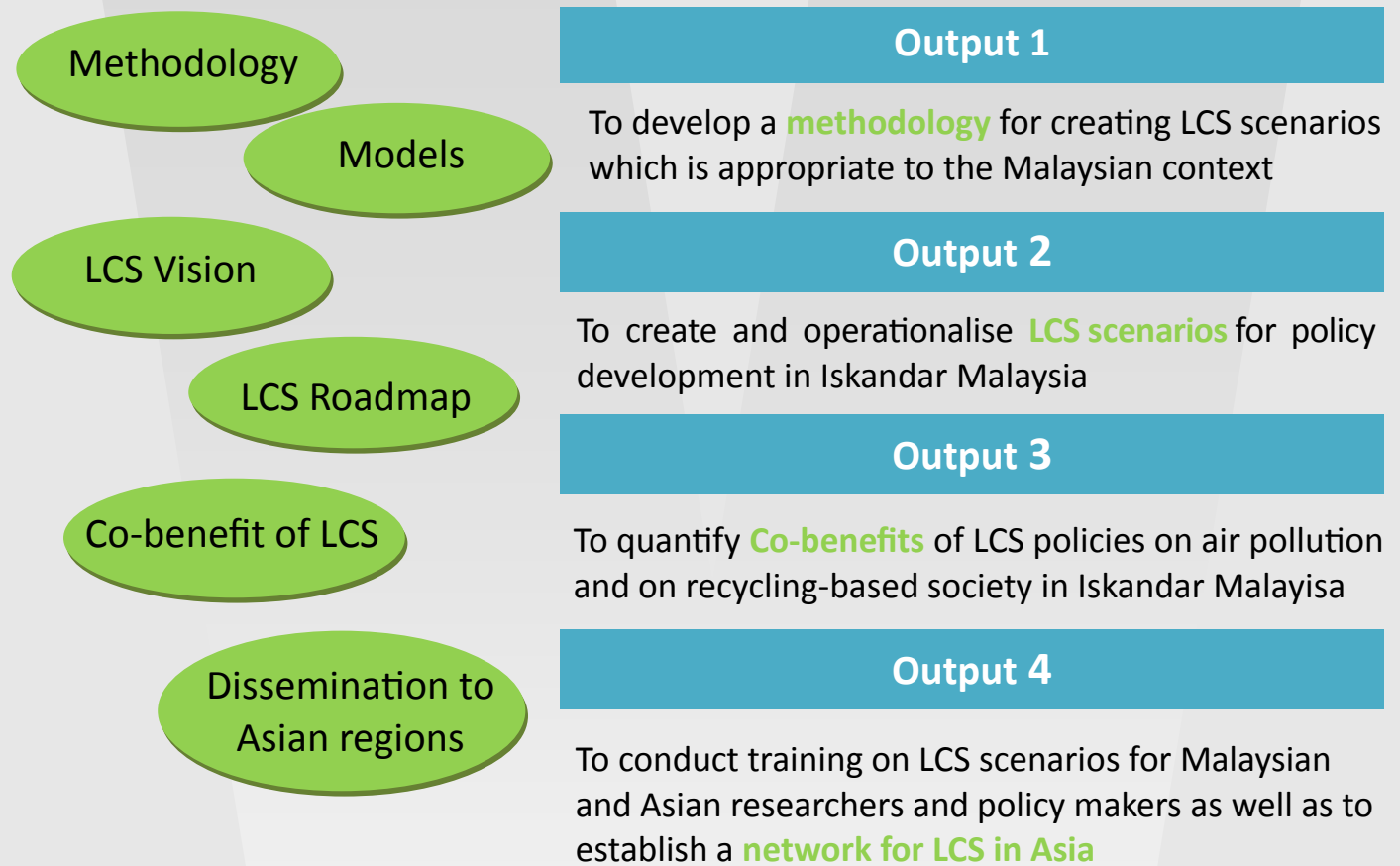
UTM
UNIVERSITI TEKNOLOGI MALAYSIA

ISKANDAR
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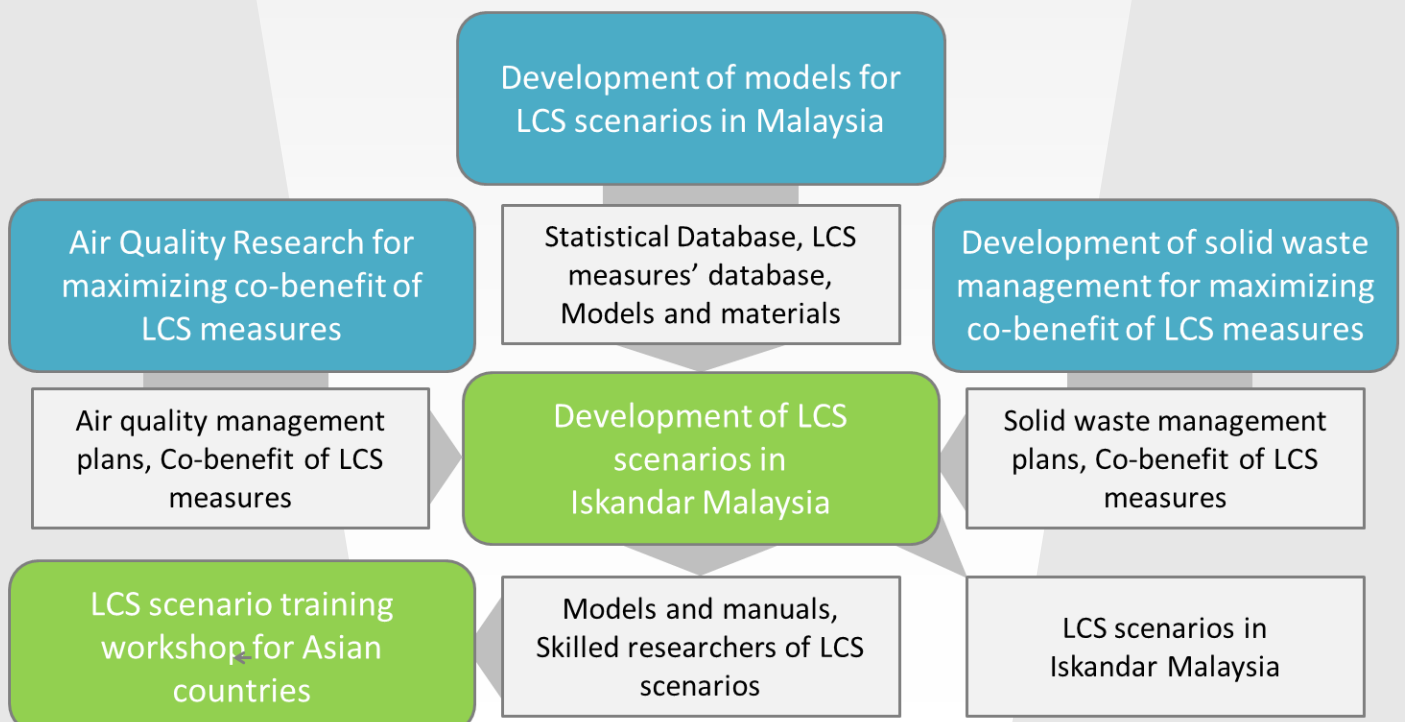


Project Purpose and Output

To develop methodology for creating Low-Carbon Society (LCS) scenarios and to apply it in Malaysia as well as to transmit the research outputs to Asian countries



Project Workflow and Expected Outcome



Research Groups

The Development of Low Carbon Society Scenarios for Asian Regions Project necessarily involves a multiplicity of closely intertwined socio-economic, environmental, energy system, waste management, land use, transportation, and consensus building aspects. The pilot project in Iskandar Malaysia therefore comprises four major research groups that jointly and severally cover the above aspects, plus one scenario integration group that serves to synthesize the other groups' research outcomes into a coherent LCS vision and holistic roadmap for IM, which will feed into the IM's LCS Blueprint.

Scenario Integration and Land Use Planning (Group I)

Scenario Integration and Land Use Planning Group studies the overall vision and roadmap towards the low-carbon society. The research output is to develop socio-economic scenario based on future development goals. This needs to integrate outputs from other research teams by using integrated models.



Consensus Building & Education (Group C)

Consensus Building and Education Group examines the implementation strategy during/after the scenario studies. Public participation and/or consensus building is required when policy-makers, researchers and stakeholders discuss, make the policies and actions and awake public concern through education. This group will develop the consensus building approach for LCS in Iskandar Malaysia as well as the Asian Regions.



Solid Waste Management (Group W)

Solid Waste Management Group conducts an empirical study on waste emission in Iskandar Malaysia, developing a model which simulates best solution for waste management in terms of 3R and GHG emission reduction.



Energy System (Group E)

Energy System Group investigates feasibility of the low carbon energy system based on the idea of decentralised energy supply. This group assesses the potential of renewable energy and evaluates the configuration of energy system with renewable energy and demand management.



Air Quality & Transport (Group A)

Air Quality & Transportation Group examines assessment of co-benefit of low-carbon measures, improvement of air quality. The research output will develop a detailed transport model as road transport is one of major sources of air pollutants and is expected to grow rapidly.



Iskandar Malaysia

Iskandar Malaysia (IM) is a visionary economic region in Johor that was established in 2005 as one of the catalyst development corridors to spur growth of the Malaysian economy. Covering an area of 221,634 hectares (2,216.3 km²), IM is the largest single development project ever to be undertaken within the Southeast Asia region.

Strategically located at the southernmost tip of Mainland Asia to tap on a vast market of about 1 billion people within a 6-hour flight radius, IM is set to become an integrated global node that synergies with growth of the global City-state of Singapore and Indonesia.

To that end, it has been projected that population in IM will double from 1.5 million in 2005 to over 3 million by 2025, supported by a stable 7-8% annual GDP growth that is primarily driven by services and manufacturing. It is vital that the targeted strong growth is achieved while keeping IM's carbon emission level at bay, inline with IM's vision to be ***"A strong sustainable metropolis of international standing"***.

Members



Malaysia

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About SATREPS (www.jst.go.jp/global/english/about.htm)

SATREPS (Science and Technology Research Partnership for Sustainable Development) is a Japanese government program that promotes international joint research targeting global issues. Global challenges cannot be met by a single country or region acting on its own, so engagement by the international community is essential. To address these issues, SATREPS works through three- to five-year projects involving partnerships between researchers in Japan and researchers in developing countries. SATREPS projects are expected to lead to outcomes with potential for practical utilization, and to enhance research capacity in the developing country. The program is a collaboration between two Japanese government agencies: Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST).

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