

Factors that constitute ‘good governance’ for urban sustainable development

- A case study of Low Carbon Development Project in Iskandar Malaysia

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ABSTRACT

Climate change is one of the most challenging global issues from scientific and political perspectives. Despite its scientific uncertainties, emerging consensus is that ‘something’ needs to be done (Bulkeley and Betsill, 2003). Analysis of the politics of climate change tends to focus on international negotiation process. However, importance of local action has also been highlighted in the Brundtland Report in 1987 and at the Rio-conference in 1992 (Bulkeley and Betsill 2003, Evans et al 2007, Rydin 2010). In order to achieve sustainable development, democratic mechanisms for decision-making and policy implementation play key role. Therefore, fostering urban sustainable development as a local action may need dramatic change in social structure by engaging civil society in policy making process. This paper focuses on the governance process in order to develop societal self-governing capacities. It analyses the case study of Iskandar Malaysia: low carbon society blueprint project with a view to identifying key factors for consensual and democratic decision-making process. The blueprint provides a sustainable green growth roadmap with 12 policy actions. This paper also analyses the role of policy-oriented research project in a real decision-making process.

KEYWORDS: Sustainable Development, Low Carbon Society, Climate Change

1. INTRODUCTION

Since the Brundtland report in 1987, environmental sustainability has been strongly focused on as a means of securing a sufficient quality of natural resources, a balanced ecosystem, biodiversity of flora and fauna, and acceptable human living environments. A large number of targets for realizing this sustainable society have been set by diverse political organizations, public and private institutions on the global, national, and local scales. Local governments have fulfilled important roles for the governance in the national and international arenas in their own right. This may represent a new pattern of governance as local governments have created transnational networks to diffuse policy programmes and exchange best practices (Bulkeley, 2003).

Governance is understood as a policy system in which policy formulation and implementation operate through networks. These networks bring together a variety of stakeholders and bring about new forms of institutions and policy-making process (Rydin, 2010). This paper will

investigate the means of governance-based policy development process as well as the insights from the literature on the sustainable city agenda. With analysis of the case study: Iskandar Malaysia Low Carbon Society Blueprint, the key factors for delivering effective governance on sustainable society will be identified.

2 LITERATURE REVIEW

2.1 *How cities can play a role for Sustainable Development.*

The concept of sustainable development was brought to the world society by the publication of the Brundtland Report in 1987. This important principle was defined as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED 1987). However, a number of arguments have emerged relating to sustainable development. Bulkeley (2011) suggests that the recommendations of triple bottom line such as social, economic, and environmental goals are not a straight forward issue, but which depend on the nature of the goals under consideration, the scale of discussions, and the interests and values that can be negotiated. In addition, sustainability involves objectives which are determined within the context of particular processes of policy development (Owens and Cowell, 2002).

Based on these arguments, the idea of sustainable cities has also emerged. Cities have addressed environmental issues over the past hundred years, even though the conception of ‘environment’ had been considered somehow ‘external’ to that of the city. The development of water and sewerage systems, for instance, the creation of parks and public spaces, and the tradition of land use planning, among others, have been developed as attempts to address the environmental issues in urban areas (Breheny, 1996). The Brundtland Report highlighted the environmental issues facing cities with a specific chapter. The argument focused on the role of cities saying that cities should be central to the pursuit of sustainable development (WCED 1987). Economic and social equity has been the central concern along with environmental protection, and the brown agenda of air pollution, energy use and sanitation should also be taken into account (Bulkeley, 2011).

While sustainable cities become a term categorising processes and analysis relating to social, economic, and environmental issues in the urban context, it is recognised that not all cities’ initiatives are new, but that it is the profile provided to the arena as a mean of addressing local and global environmental issues that is new (Owen 1986). Bulkeley (2003) emphasises that addressing sustainability at the local level requires the facilitation of partnerships between different organisations and community participation. Moreover, learning from best practice from other cities as well as partnership initiatives with local businesses and organisations may help to improve resource efficiency and raise individuals’ environmental awareness.

2.2 *What is ‘good governance’ in the urban context?*

Sustainable development puts significant emphasis on the need to develop more democratic mechanisms for decision-making and policy implementation (Sibeon, 2002). Governance can take a position in the strong and dynamic organisation of local government and the culture of ‘institutional learning’. For realising this perspective, Stocker (2002) suggests that political actors need to employ creative intervention to change the fundamental political and social structures. New hybrid forms of governing that ‘[imply] a greater willingness to cope with uncertainty and open-endedness on the part of policy-framers’ are emerging. On the other hand, individual citizens may increase concern for better information and performance from public agencies. Therefore, Christie and Warburton (2001) assume that the emphasis on improving democratic mechanisms for decision making leads to calls for human equity and environmental justice, more effective environmental governance. This idea is expanded from the argument that the fundamental driver of sustainable development must be a democratic decision-making process that is developed through open discussion and consensus based on shared goals and trust that can inspire greater engagement by citizens (Christie and Warburton, 2001).

One of the key features relating to governance post-Rio conference (1992) has been the growth of transnational and national networks of subnational governments through the exchange of information and experiences. Also the networks and links between local governments have been created (Gilbert et al, 1996). 'Multi-level governance' has developed at the boundaries of formal politics, in relationships between national and international politics, and between state and non-state actors, since nation-states no longer monopolise policy making and the need for organising decision-making over complex issues that lead to difficulties of control for nation-states processes (Hooghe and Marks, 1997). On the other hand, 'network governance' has emerged through the concept of 'policy networks'. Policy networks have been created as interest groups including one or more government departments in to the hope of influencing policy and of being integrated into the policy-making process. O'Riordan and Church (2001) state that governance is no longer ordered or hierarchical. In the response to global change, active agents in local communities seek partnerships and coordinated programmes of actions through various levels of government from local to multinational.

Bulkeley and Betsill (2003) have studied 'urban governance' in the context of urban climate protection policies, where local, national government, and international networks are all involved in a diversity of networks and partnerships. They emphasise that the importance of both vertical structures and networks across multiple borders as these structures often help to cope with the limitations of local resources and develop networks to release commitments (Rydin, 2010). Rydin (2010) also states the effectiveness of using a variety of tools as a window onto a more detailed analysis for responding to the issues of 'what the governance networks are, how they are handling deeply contested problems surrounding sustainable urban development and how assumption, knowledge and rationalities are built into their operation.'

3 RESEARCH METHODOLOGY

The study approach is project-based research building on the research project of 'Iskandar Malaysia Low Carbon Society Blueprint 2025'. To analyse the governance framework involved, documentary information was gathered from various publications and websites published by local and state governments as well as from academic papers. In addition, realistic primary data were also collected from project meetings that have been held seven times over a two-year period. Other primary data were collected from local governments through the many other research-based meetings.

The analysis of the principal 'driving forces' for achieving a Low Carbon Society in Iskandar Malaysia will be investigated, alongside an examination of the social and institutional mechanism for making the vision a reality. An important aspect highlighted in this paper is how governance can play a role in bringing about the visions, and what are the factors of 'good governance' in the context of Iskandar Malaysia?

4. CASE STUDY ANALYSIS: ISKANDAR MALAYSIA

4.1. Overview of the case background

Iskandar Malaysia (IM) is a visionary economic region in the southern part of Malaysia called Johor which was established in 2006 as one of the strategic development corridors to spur the Malaysian economic growth (Figure 1). IM has a land area of 2,216.3 km². It is the largest single development project ever to be undertaken in Southeast Asia. IM has a strong vision to become an integrated global node that can organise synergies with the growth of Singapore and Indonesia. This area is projected to see population growth of more than double from 1.35 million people in 2005 to over 3 million by 2025, while GDP is expected to quadruple from MYR 35.7 billion to MYR 141.4 billion in the same period. In the context of strategic development of IM, the Iskandar Regional Development Authority (IRDA) has been set up under a Parliamentary Act in 2006 (IRDA Act 2007 (Act 664)). IRDA has strong powers to promote economic investment, physical and social development, as well as environmental protection in the urban region. However, there is complexity in that IM includes five local authorities, which, under the Town and Country Planning Act 1976 (Act 172), are traditionally responsible for

planning and regulating urban development and land use. However, under the Act 664, all government entities including the five local authorities are required to cooperate with IRDA to foster development strategies (Ho et al, 2013).



Figure 1: Location of Iskandar Malaysia
(Source: Iskandar Regional Development Authority, 2010)

4.2. Low Carbon Society Blueprint Project for Iskandar Malaysia

As the global concern for climate change becomes increasingly pressing, the Malaysian Government has proposed a voluntary carbon reduction target of up to 40% the 2005 level in terms of emission intensity of GDP by the year 2020. The Low Carbon Society Blueprint project was launched in IM as one of the climate change mitigation policies following the IM's vision of becoming 'a strong sustainable metropolis of international standing'. The vision integrates the two competing goals of 'strong', taken to imply the need to develop a prosperous, resilient and globally competitive economy; and 'sustainable', which points to the need to nurture a healthy, knowledgeable society that subscribes to low carbon lifestyles and develops a total environment that supports rapid growth but reduces growth's energy and carbon emission intensity (UTM-Low Carbon Asia Research Centre, 2013). The LCS Blueprint is formulated to help IM achieve this vision by becoming a rapidly growing, low carbon urban region. In the light of the institutional complexity that exists in IM as explained earlier, the blueprint has been devised to provide a crucial policy link between Malaysia's global and national responses to climate change and IM's regional and local development plans and policies (Figure 2). The Blueprint is an effective means of mainstreaming (UN-Habitat, 2012) low carbon society policy actions and programs into IM's existing statutory-institutional structure to ensure they are implementable without causing unnecessary disruptions to the governance of the urban region.

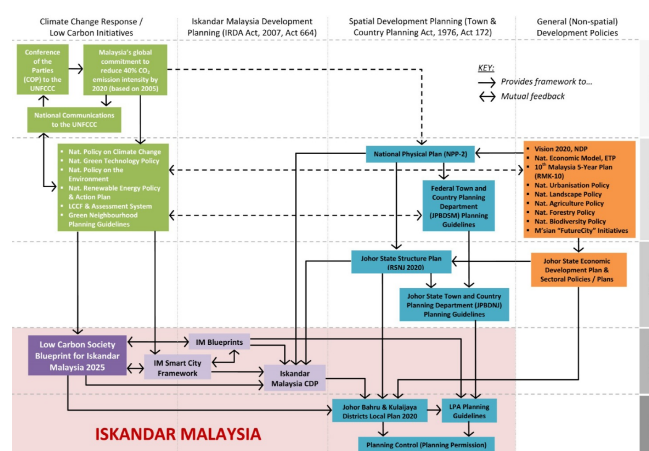


Figure 2: The Low Carbon Society Blueprint for Iskandar Malaysia 2025
(Source: UTM-Low Carbon Asia Research Centre, 2013)

Central to the project is the scenario-based modelling and projection of carbon emission reductions and development of a narrative on growth scenarios, policies, and the assessment of a series of indicators that lead to the concept of a low carbon society. Three main themes: Green Economy, Green Community, and Green Environment have been set up, under which 12 LCS Actions have been identified (Table 1), which provide the policy framework for more detailed sub-actions, measures, and some 281 programs (Ho et al, 2013). Modelling results show that successful implementation of the programs identified will potentially reduce IM's carbon emission intensity per GDP up to 58% the 2005 level by 2025, which will bring about a 40% absolute reduction in carbon emission compared to the business as usual (BaU) scenario (UTM-Low Carbon Asia Research Centre, 2013).

Table1: 12 LCS Actions for Iskandar Malaysia (Source: UTM-Low Carbon Asia Research Centre, 2013)

Green Economy
Action 1 Integrated Green Transportation
Action 2 Green Industry
Action 3 Low Carbon Urban Governance **
Action 4 Green Building and Construction
Action 5 Green Energy System and Renewable Energy
Green Community
Action 6 Low Carbon Lifestyle
Action 7 Community Engagement and Consensus Building**
Green Environment
Action 8 Walkable, Safe and Livable City Design
Action 9 Smart Urban Growth
Action 10 Green and Blue Infrastructure and Rural Resources
Action 11 Sustainable Waste Management
Action 12 Clean Air Environment**

4.3. Governance and Institutional Framework in IM

Effectively, a multi-disciplinary research team was organised with four research institutions from Malaysia and Japan under the Science and Technology Research Partnership for Sustainable Development Program (SATREPS) in 2011. The overall research process which includes IRDA officials leads to an effective linkage between the 'science/research realm' and 'policy realm' (Figure 3). This is the strong focus of this science based policy development project. IRDA officials are being actively involved in the overall process of shaping the research and policy outcomes. Moreover, stakeholder participation is notably enhanced and involved into the process at the stage of Focus Group Discussions (FGDs) where stakeholder opinions are gathered and feedback into the policy formulation process (Ho et al, 2013).

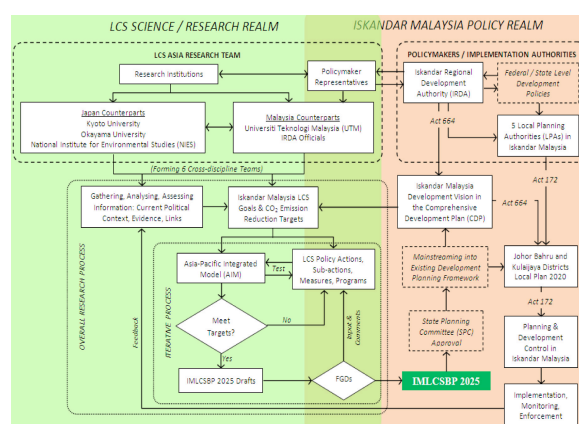


Figure 3: The 'science/research-policy-making' model that emerged from the formulation of the Low Carbon Society Blueprint for Iskandar Malaysia 2025 (IMLCSBP 2025) and mainstreaming of the Blueprint into the existing development planning institutional framework (Source: Ho et al, 2013)

5. DISCUSSION AND CONCLUSIONS

5.1 Findings and Discussion

5.1.1 Key governance contributions in IM

There is a strong tendency for people to prefer maximising their own short-term and local benefits instead of considering the long-term benefits and global risks. This seems to relate to the economic aspects because people tend to prefer a smaller reward today than a larger benefit in the future (DECC, UK, 2011). Since the 1960s, a number of attempts have been reported relating a link between the economy and ecology. These attempts established the measurement system of economic welfare and performances associated with environmental performances. This approach also copes with global risks and uncertainties (Finco and Nijkamp, 2001).

IM is a notable example that attempts to develop a relevant policy-making process to deal with the long-term environmental quality problems in society. Adding to this, the SATREPS project also tries to identify the benefits of the bottom-up strategy for the environmental management which would contribute to the general public making changes in resource use and total consumption. These strategies lead not only to direct local involvement and improvement of human quality of life, but also the perspective of employment creation. This may also stimulate the local economy. Thus environmental policies may be given a lot of attention by both politicians and citizens.

Another significant aspect that is being attempted by the SATREPS project is the social communities and an institutional approach to sharing motivation and information through FGDs. There is a tendency for people to adopt the opinions, judgments and behaviour of others. The Department of Energy and Climate Change (DECC, 2011), UK has announced that recent research suggests that encouraging individuals to be members of the community rather than as consumers is effective for changing energy-related behaviours. Regarding this, it was identified that individuals may actively encourage others within their local or social communities to introduce new beneficial information. The likelihood that people feel happy or healthy depends partly on how those in their social network such as friends, family, and colleagues behave.

IM has also started to organise low-carbon communities and low-carbon lifestyles. Fundamentally, individual decisions to save energy to conserve common natural resources are influenced by social dilemmas (Kollock, 1998). Specifically towards energy efficient objectives, energy related behaviour is shaped by socio-technical infrastructure which is largely beyond individual control. Thus low-carbon communities could provide a new context for changing end-user behaviour, this leading to energy demand-side management which offers potential solutions. At a different level, various groups of individuals could create new institutions and schemes for solving social problems.

Furthermore, in recent times, sustainable lifestyles are being encouraged through educational-based techniques using workshops and community events. These community-based and place-based programmes are effectively adopting the combined approaches of technical and social dimensions of change. The place-based communities also organise sub-communities to share interests and practices. Therefore, each community activity can evolve by adopting new factors from different types of communities (Heiskanen and Johnson, 2008). This is the great potential of the low-carbon community approach towards a low carbon society.

5.1.2 Good practice of city regional partnership

Even though the threat of environmental catastrophe has frequently been focused upon in recent times, it seems to be difficult to produce a consistent solution model due to the fact that environmental problems are remarkably complex. As O'Riordan and Church (2001) indicate, the 'network

governance' may influence the policy-making process effectively. Local actions are seeing relevant partnership and community engagement for realistic implementation approach.

Regarding this complex matter, Manchester (UK) made efforts to organise a city regional partnership program called 'Manchester is My Planet (MiMP)' aiming to transform the level of actions for climate change. This is an example of a community-based and place-based program. This program was organised by local authorities, universities, the private sector, and citizens. Also this attempt included a human behavioral change framework. The feasibility study for this campaign aimed at building receptivity and support in communities for the changes towards a low-carbon economy. Funding was secured by the UK Department of Environment. And the main purpose of this campaign was to encourage a wide range of citizens to make a personal commitment to reduce their own CO₂ emissions, and in addition, to feel they were a part of a large 'movement' of social change.

One of the main points which led this campaign to success was that it was able to demonstrate by using an upbeat, independent branding strategy, the personal financial benefits of reducing energy use and how personal action could contribute to reducing CO₂ emissions. This kind of 'civic pride' campaign tends to be recognised as a short-term injection for generating the support and environmental awareness. However, this also leads to the potential main stream changes for the long-term vision of a low-carbon economy. Therefore, MiMP is linked to urban regeneration, encouraging low-carbon transport, creating low-carbon energy business, and making efforts to increase renewable energy in this area. Moreover, a number of new institutions have been set up, thus 2.5 million inhabitants in Manchester have considerable opportunities to create a new low-carbon infrastructure in their community area (Heiskanen, Johnson, 2008).

IM has also set effective monitoring, assessment, and publication systems to disseminate knowledge and information sharing for promoting the 12 LCS Actions (Table 1). These are effective examples of how information should be presented and shared in communities to raise the motivation to reduce emissions, and instinct how an institutional approach can be applied to involve all different types of actors as well as stakeholders. Moreover, the final outcomes could lead to long-term positive impacts for the low carbon society.

Furthermore, the importance of participation of all actors and all stakeholders in the urban space, such as FGDs in IM, should be emphasised for the implementation of sustainable urban strategies. Apart from the FGDs, a total of seven technological tours, five international symposiums, and side events (UNFCCC COP17 and COP18) have been held involving local, state, and Federal government officials. These activities are part of efforts to disseminate research progress and outcomes and provide evidence on working with 'real world' settings. As the case study Manchester showed, on the other hand, new environmental strategies including policies, campaigns, and promotions may attract new investment, which also brings new urban employment and enhances the local low-carbon economy, and thus may contribute to improving the quality of life. However, sustainable development is always highly influenced by the urban form, including density, transport system, and job locations (Hall, 1991). Therefore, different levels of analysis and approach are inevitable in each context. The 12 LCS Actions in IM adopt relevant approaches to each field and a linkage between each action is effectively created.

5.2 Conclusions

To sum up, recently governance has been recognised as one of the key strategies for reducing social negative externalities and encouraging a low carbon society. As this paper argues, the main factors for developing 'good governance' may be considered institutional, urban structural, and human behavioral factors. Moreover, each factor could be highly influenced by the urban context and cultural background. Regarding this, network governance may be the key to developing an institutional and community based partnership and knowledge sharing arena, which all actors and stakeholders are involved and being capable of motivating each other. In this stage, comprehensive policies may be

significantly useful for organising vertical and horizontal networks to create a fundamental social structure change. In addition, the appearance of significant environmental problems is likely to take a long time, thus it is also essential to use a scientific approach to predict such situations and describe possible solutions using several patterns of scenario making.

Furthermore, to bring about a sustainable society, it is important that people can recognise the overall individual and social benefits of their environmental activity. Also the final outcomes should contribute to the positive effects on society and the global context. New environmental strategies and low-carbon technologies are supported by: knowledge, the supply chain, commercial interests, and policy-making. The relationship between social practices and the contexts in which the city exists should also be understood.

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