

Integrating Sustainability Principles in Policy Making in Developing and Transition Economies: Case Studies in Housing and Urban Waste Management Sectors

Tapan K. Sarker and Mehdi Azam

Abstract—The formulation and implementation of sustainability in policy-making is an enormous challenge for both public and private sectors in developing and emerging economies. Policy-makers in these economies face particular challenges because they have so many economic, social and environmental priorities at stake that it becomes difficult to decide which projects should be targeted and funded to achieve the greatest benefits. This paper investigates the factors influencing the integration of sustainability principles into policy-making in developing and emerging economies using case studies from local and state government sectors in Malaysia and Bangladesh. In particular, it considers the evolution of a public-private partnership approach between government (at different levels), businesses and NGOs for the improvement of urban sustainability with a particular focus on the housing and urban waste management sectors. The findings of this paper provides useful evidence of the implications of a public private partnership approach that can help government policy-makers, businesses and NGOs in formulating and implementing sustainable policies in urban environmental infrastructure and development in the developing and transition economies.

Index Terms—Social and environmental sustainability, housing, urban waste management, developing and transition economies

I. INTRODUCTION

Governments regularly face the challenge of formulating policies that meet multiple objectives. These may include intangibles such as maintaining high social and environmental standards, or non-monetary outcomes that are difficult to place a value on such as a cleaner environment or improved public health. Policy-makers are realising that achieving outcomes that only have short-term benefits is neither an efficient use of resources nor an effective way of achieving long-term benefits for the community. Accordingly, government policy-makers are facing increasing pressure to extend their focus beyond short-term returns and engage in activities that will address pressing challenges without compromising the long-term needs of future generations.

The challenges faced by policy-makers are particularly acute in developing and emerging economies, which possess weak political institutions, inegalitarian social and economic

structures, and lack effective accountability and governance mechanisms. Policy-makers are faced with numerous pressing social needs which require their immediate attention. The effective implementation of policies is constrained by limited resources, social and institutional frameworks, and the cultural values and norms of the population (Pugh, 2001). This paper investigates the factors that influence the formation and implementation of sustainable policies in the local and state government sectors. A comparison is drawn between the implementation of sustainable policies directed at solving immediate social issues in the emerging economy of Malaysia, and the developing economy of Bangladesh, in order to determine what factors contribute to the effective planning and implementation of sustainable policies. In particular, these case studies show that an effective public-private partnership approach may potentially solve the urban sustainability problems faced by these countries.

The remainder of the paper is organised as follows. Section II discusses the theoretical frameworks behind developing sustainable policies in the developing economies. Section III examines the two case studies: sustainable low-cost urban housing in Malaysia, and sustainable urban environmental management in Bangladesh. Factors contributing to effective and sustainable government policies as discussed in section IV, drawing on the findings of the two case studies looked at earlier, and then a conclusion is reached in section V about the implications of this study. These findings have implications for policy-makers in developing economies seeking to achieve sustainable policy outcomes in an effective manner.

II. SUSTAINABILITY IN POLICY-MAKING

Policy-making, as a kind of rational decision-making includes two different types of intellectual activity: knowing and evaluating (Gigerzner & Selten, 2002; Boulanger, 2005). In this paper, we focus our analysis on the impacts of socio-political and cognitive factors influencing the integration of sustainable principles into policy-making. Policy-making for sustainable development constitutes a very special kind of decision-making, for three reasons. First, there is no single decision-maker but a plurality of decision-makers, each with their own preferences, objectives, expectations and beliefs. Second, the objectives are not clear beforehand, which means that the very definition of the goals and objectives is part of the decision-making problem itself.

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Tapán K. Sarker is from Asia Pacific Centre for Sustainable Enterprise, Griffith Business School, Griffith University, Australia (e-mail: tapan.sarker@griffith.edu.au).

Mehdi Azam is from Albert-Ludwigs-Universität Freiburg, Germany (e-mail: mehdi.azam@uranus.uni-freiburg.de).

Third, the assessment of the costs and benefits is much more difficult for sustainability issues than for normal businesses. The last reason is of particular interest as it is related to the three key features inherent in all sustainability issues, namely, the existence of uncertainties, and the interplay between human beings and nature. One of the key issues to address in sustainable policy-making is that policy-makers and managers, in making day-to-day decisions, are rarely provided with the methodology and information to take the organisation's strategic and long term policy objectives into account in a meaningful, consistent and robust manner (Accounting for Sustainability, 2010).

III. CASE STUDIES

Policy-makers in developing and emerging economies are not only faced with a wide range of pressures, but are required to negotiate a variety of competing interests. In response to these pressures, many policy-makers have adopted an innovative public-private partnership approach in order to facilitate the implementation of their policies in order to resolve pressing social issues. This paper examines two case studies where a public-private partnership approach was used: sustainable low-cost urban housing projects in Malaysia, and a participatory community based approach in urban waste management in Bangladesh.

A. Sustainable low-cost urban housing in Malaysia

Developing nations experiencing rapid urbanisation and high population growth face the pressing challenge of providing sufficient low-cost housing of an adequate standard (Devas & Rakodi, 1993). This problem is particularly acute in Sarawak, Malaysia, which has experienced rapid urbanisation caused by a growth in the manufacturing sector. Over the last 30 years, the urban population has grown from 15.5% in 1970 to 50.5% in 2005. Its capital city, Kuching, is the most urbanised region, housing 85.5% of the total urban population. However, this rapid urbanisation has not been matched by a corresponding growth in the provision of infrastructure and services, making housing a pressing infrastructure need, particularly for lower-income households. This also means that squatting is a major problem in Malaysia. In response, the Malaysian Government has made a serious commitment to providing adequate housing for people at all levels of income (Sufian & Mohamed, 2009).

The provision of housing is a concurrent responsibility of the Federal and State Governments. The Federal Government has articulated a National Housing Policy in a piecemeal fashion, as well as associated strategies and programs (Idrus & Siong, 2008). It also provides grants to cover infrastructure cost and structural costs for the low-cost housing programs (Ministry of Housing and Local Government, 2009). These programs are jointly implemented by the State Government and private developers, although minimal consultation takes place between the various bureaucracies (Goh, 1992, 2001). The absence of a clear national housing policy has allowed

private developers to exploit the overlapping jurisdiction between the State and Federal agencies. Many developers pay no attention to the Government's zoning programs, building houses with little consideration of future expansion or holistic development of an area. This leads to reduced community wellbeing, both now and in the future (Goh, 1992, 2001). No provision is made for community consultation or the consideration of social factors when planning these settlements, leading to housing that does not reflect family structures (Goh, 2001). There are also allegations that private developers have short-changed the Government in terms of design, quality of materials, and unwarranted increases in cost (The Star, 2009). This can lead to delays of up to 10 years for low-cost housing, escalating rents, poor quality developments which are badly maintained, and the persistence of squatter settlements (The Star, 2009).

However, since the implementation of the low-cost housing scheme, there has been a significant decline in the number of squatters in urban areas (Sufian & Mohamed, 2009). Since housing is one of the major determinants of social well-being, the provision of low-cost housing has improved quality of life (United Nations, 1976, 1996). Further, the prevalence of squatters in Malaysia poses a hindrance to development. Squatters often refuse to vacate areas required for development, delaying planned projects (Sufian & Mohamed, 2009). Reducing the number of squatters facilitates the country's development. The provision of low-cost housing programs in Malaysia serves to address pressing social problems. However, increased community consultation and bureaucratic co-ordination would improve the quality, effectiveness and sustainability of these low-cost urban housing projects.

B. Community based urban waste management in Bangladesh

The densely populated city of Khulna, Bangladesh, struggles with effective waste management (Azam, 2008). The city has an area of 41 square kilometers and a population of 1.5 million, and generates 520 tons of waste each day, which is an average per capita waste generation of 0.346 kg. Taking population growth into account, daily waste generation is projected to increase to 1114 tons by 2025 (Alamgir et al. 2009). Khulna City Corporation (KCC), the local government authority, is responsible for the city's waste management services, but does not have the resources to deal with the ever-increasing volume of waste generated. This means only a portion, about 300-350 tons per day of the total waste is actually dumped by KCC at the ultimate disposal site (Rahman, 2010). The excess waste caused unhygienic conditions in the vacant lands of the city, road sides, and drains near houses, water bodies and low-lying areas.

To solve this problem, a multi-stakeholder, community based partnership was implemented by KCC and Prodipan, a local NGO. Prodipan obtained funding from the Swiss Agency for Development and Co-operation (SDC) to implement a solid waste management pilot project that established a public-private partnership between the communities and KCC in order to manage solid waste

sustainably (Water and Sanitation Program 2000). Institutional arrangements were reached with KCC which allowed ProdiPan to provide door-to-door waste collection services in exchange for a monthly payment from households. This project has been expanded to encompass the production of waste derived bio-fertilisers or composting plants in affiliation with KCC (Water and Sanitation Program 2000). A Project Advisory Committee, comprised of representatives from government departments, ProdiPan and other NGOs, universities, SDC and chaired by the CEO of KCC, meets quarterly to monitor and review the project. This initiative has been replicated very quickly throughout Khulna city, and currently about 20 NGOs are involved in similar community based solid waste management programs, as well as operating six compost plants throughout the city for bio-fertiliser (Water and Sanitation Program, 2000). This community based partnership was so successful that it has been extended to hospital waste management. ProdiPan entered into a contract with KCC to share the responsibilities for management of hospital waste, and is now charging KCC to collect hazardous waste from 68 hospitals and burn it in the incinerator at the UDS (Alam, 2010). By effectively assessing the needs of the community and partnering with NGOs and the community to achieve more sustainable waste disposal methods, KCC has largely served to alleviate the waste disposal problem faced by Khulna.

IV. SUSTAINABLE POLICY-MAKING: KEY CHALLENGES

Governments in developing and emerging economies face a range of pressures which influence them to adopt sustainable policies. Implementing the principles of sustainability can also lead to more effective public policies, particularly in the adoption of a partnership approach with affected stakeholders and the private sector. In Malaysia, the low-cost housing projects were government funded, but carried out by private developers. In Bangladesh, the waste management system was a community funded partnership between the local authority and various NGOs. It seems that taking a public-private partnership approach to policy-making is becoming more common in developing and emerging economies. However, in order to be effective public-private partnerships should be structured so that each stakeholder has an incentive to perform their part of the agreement. It is essential that each party gains a benefit from performing their part of the arrangement in a manner consistent with the achievement of sustainable policy objectives (Bhatty & Huber, 2008). The waste management system implemented by KCC in Bangladesh provided benefits to all the stakeholders involved. By contrast, in Malaysia, the resources of the government were not utilised effectively. The private companies implementing the projects had an incentive to minimise their costs, resulting in poor-quality low-cost housing projects that did not meet the needs of the community, leading to many projects remaining untenanted (The Star, 2009).

Having regard to the needs and livelihood of the communities in which the project is operated is also crucial to the success of the project. Ideally, the inclusive planning approach should provide built-in mechanisms for ongoing

participation by the affected stakeholders which are integrated into the planning processes of each project (Chatterjee et al. 2004). The waste management system in Bangladesh took account of the needs of the community. The production of bio-fertilizer from composting was particularly suited to a country where 75% of its population is dependent on agriculture (UNFPA, 2006). The low-cost housing projects in Malaysia did not incorporate a needs assessment of the local community (Goh, 1992, 2001). Implementation of these low-cost housing projects was carried out using a top-down approach, characterised by sectoral planning and compartmentalised responsibilities and duties. Finally, institutional structures in developing and emerging economies can hinder the efficiency and transparency of project implementation. In Malaysia, there was no effective co-ordination between agencies, and no single authoritative national housing policy. This aggravated the housing conditions instead of improving them (Goh, 1992, 2001). In Bangladesh, the local public authority, KCC, had sole responsibility for the waste management system. This allowed for policy coordination and more effective accountability mechanisms. Effective and sustainable policy implementation can be achieved by adopting a public-private partnership approach in order to deliver policies that meet the identified needs of the community by taking into account social considerations. It has been demonstrated that this can be most effectively achieved through discarding the top down approach, and instead working with the community at a grass roots level and adopting a win-win partnership mentality in order to deliver innovative solutions that benefit all stakeholders and achieve sustainable policy objectives in a socially conscious, efficient and effective manner.

V. CONCLUSION

Policy-makers are continually faced with the task of formulating policies that will satisfy a range of stakeholders while achieving broader social and environmental objectives. Developing and emerging economies face particular challenges, including weak institutional frameworks, lack of governance mechanisms, and limited funds. This may limit the policy's effectiveness at the grass-roots level. This paper has examined two case studies involving the implementation of sustainable policies in the developing and emerging economies of Bangladesh and Malaysia. In particular, it has analysed the respective strengths and weaknesses of the implementation of each policy objective, with the view to suggesting a number of factors that may contribute to the successful implementation of sustainable policies. This paper has found that there is a significant trend in governments of developing and emerging economies to adopt a public-private partnership approach in the design and implementation of policies, not only to achieve outcomes that they otherwise would have lacked the resources to do, but also to achieve the implementation of policies in a more sustainable manner.

However, the case studies also show that an appropriate allocation of incentives and effective accountability mechanisms are crucial to the success of any public-private partnership approach to policy implementation. Integrating

sustainability principles into policy-making in developing economies can provide a solution to many of the development challenges that emerging and developing economies face, can allow a better use of limited resources, and also provide unexpected solutions and flow-on benefits to their entire economy. Sustainable policy-making allows governments to reconcile their short and long term policy needs while providing enduring benefits to the entire country.

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Tapan Sarker (PhD, Australian National University) is a Lecturer of Energy and Environmental Security at Griffith University, Australia. His research interests centre around the environmental management and regulatory policy issues in the natural resources sector with a particular focus on forestry, mining and extractives industry. He has current research projects and research postgraduate students working on energy efficiency in the Australian manufacturing sector, corporate social responsibility and sustainability, biodiversity conservation in protected areas in developing countries, and climate change adaptation in the coastal region in a number of countries in the Asia Pacific region including Malaysia, India, Nepal, Indonesia and Bangladesh. Dr Sarker was a keynote speaker at the 2011 International Conference on Strategy Management and Research - ICSMR 2011 held in Hong Kong, July 2-3, 2011.



Mehdi Azam (BSc, MSc in Environmental Science) is a Researcher Scholar at the Environmental Governance Programme, Albert-Ludwigs-Universität Freiburg, Germany. His research interests centre around environmental governance and climate changes issues in the developing countries. He has authored several articles and research papers in international journals and edited volumes. From 2007 – 2009, Mr Azam led an Alternative Livelihood Program in the Context of Climate Change (ALPCC) Project as a Research Officer of Pradippan (an environmental NGO) in Bangladesh.